





网络基础设施建设

加快全球网络基础设施建设,促进互联互通

Part One Internet Infrastructure Construction

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

002【精品案例】智慧教室——产教融合构建网络空间学习共同体

[Outstanding Case]Smart Classroom—Ally Industrial and Educational Endeavor to Forge a Cyberspace Learning Community

联合国教科文组织高等教育创新中心 (中国深圳) International Centre for Higher Education Innovation Under the Auspices of UNESCO

007【精品案例】亚洲直达(ADC)国际海缆横贯亚洲,更高容量、更强安全,助力企 业数字化转型

[Outstanding Case]Asia Direct Cable (ADC) Traversing Asia with Higher Capacity and Greater Security, Helping Enterprises Digital Transformation

中国电信集团有限公司 China Telecom

011 欧盟创新驿站网络(IRC): 搭建线上协作网络

Innovation Relay Center (IRC): Building an Online Collaboration Network 欧盟创新欧盟创新驿站网络 (IRC) (Innovation Relay Center, IRC)

015 爱立信新能源基站让零碳运行成为可能

Making Zero-Carbon Operation Possible for Sites with Ericsson's Innovative Solutions 爱立信(中国)通信有限公司 Ericsson (China) Communications Co., Ltd.

020 空间 - 地面全球望远镜网络

Space-Ground Global Telescope Network 广西大学 Guangxi University

025 全球领先的多语言数据库,助力全球人工智能普惠发展

World-Leading Multi-Lingual Database, Contributing to the Inclusive Development of Global AI 北京海天瑞声科技股份有限公司 DataOcean AI

029 点亮深蓝,共筑数字化美好未来

Illuminating the Maritime Pathway to a Digital Bright Future 烽火通信科技股份有限公司 FiberHome Communication Technology Co., Ltd

033 构建网络空间命运共同体:SDAN 技术驱动下的 LIGHTSPAN MF-2 部署与普惠影响

Building a Community with a Shared Future in Cyberspace: Deploying LIGHTSPAN MF-2 Driven by SDAN Technology and Its Inclusive Impact 上海诺基亚贝尔股份有限公司 NOKIA SHANGHAI BELL

037 中国电信境外数据中心建设: 夯实境外数据中心建设, 助力数字经济全球化发展

China Telecom's Overseas Data Center Construction: Consolidate the Construction of Overseas Data Centers to Assist Digital Economy Globalization 中国电信集团有限公司 China Telecom Group Limited

目录 contents



网上文化交流

打造网上文化交流共享平台,促进交流互鉴

Online Cultural Exchanges and Mutual Learning Building an Online Platform for Cultural Exchanges and Mutual Learning

044【精品案例】弥合数字鸿沟,共筑包容性未来

[Outstanding Case]Bridging the Digital Divide, Powering an Inclusive Future for All 思科(系统)中国有限公司 Cisco Systems, Inc.

049【精品案例】"海外中国旅游文化周"全球联动活动

[Outstanding Case]China Tourism and Culture Week Overseas 文化和旅游部国际交流与合作局 Bureau of International Exchanges and Cooperation, Ministry of Culture and Tourism, P. R. China

053【精品案例】构建中华古籍的数字网络家园——"中华古籍资源库"建设与服务实践案例

[Outstanding Case]Building a Digital Network of Chinese Ancient Books–Chinese Ancient Books Resources Database Construction and Services 国家图书馆(国家古籍保护中心) National Library of China(China National Center for Preservation & Conservation of Ancient Books)

057 "感受中国新时代"主题征文、摄影和短视频大奖赛

"Understanding China's New Eraj "Themed Essay, Photography and Short Video Contest 《当代世界》杂志社 Contemporary World Magazine

061 中国经典音乐海外传播

Overseas Dissemination of Chinese Classic Music 上海广播电视台 Shanghai Media Group

066 "大爱无国界"国际义卖活动

"Love Knows No Borders" International Charity Sale 阿里巴巴集团 Alibaba Group

070《看中国》新媒体传播平台项目

A Glimpse of China: a Project on New Media Platforms 中共中央对外联络部新闻办公室 Information Office of the International Department of the CPC Central Committee

074 构建数字职教背景下的"一带一路"教育命运共同体

Build a "Belt and Road" Education Community with a Shared Future in the Context of Digital Vocational Education 无锡职业技术学院 Wuxi Institute of Technology

078 让甲骨文队数字化形式回归殷墟

Bringing Oracle Bone Inscriptions to the Yin Ruins in Digital Form 中国社会科学院考古研究所 Institute of Archaeology, Chinese Academy of Social Sciences 甲骨文信息处理教育部重点实验室 Oracle Bone Inscriptions Information Processing Lab 腾讯 SSV 数字文化实验室 Digital Culture Lab, Sustainable Social Value Org, Tencent

082 丝绸之路数字图书馆

The Silk Road Digital Library 国家图书馆 National Library of China

086 用影像记录时代,借网络走向世界 — "扎西德勒"西藏网络影像节

Recording The Times with Images and Going to the World Through the Internet – "Tashi Delek" Xizang Internet Photography & Video Festival 西藏自治区互联网信息办公室 Cyberspace Administration of Xizang

090 中国 - 阿拉伯国家短视频大赛

China-Arab Video Competition 国家广播电视总局 National Radio and Television Administration

094"电亮中土,'碳'梦未来"聚焦"Z世代",共话中土跨文化融合故事

"GO Green For Future" Cross-Cultural Activities of Generation Z between China and Türkiye 国家电力投资集团有限公司 State Power Investment Corporation 环球网 Huanqiu.com

099 哔哩哔哩以纪录片出海推动网上文化交流

Bilibili Advances Online Cultural Exchange Through the Development of Overseas Business with Documentaries 上海宽娱数码科技有限公司 Bilibili

103 国家大剧院线上系列演出

The Online Series of Performances by the National Center for the Performing Arts (NCPA) 中国国家大剧院 National Centre for the Performing Arts

109 中国一中东欧国家创新合作智库论坛

China-CEEC Think Tank Forum on Innovation Cooperation 中国—中东欧国家创新合作研究中心 China-CEEC Innovation Cooperation Research Center

113 InnoCentive 开放创新平台推动多国科技创新与文化交流

InnoCentive Opens Innovation Platforms to Promote Technological Innovation and Cultural Exchange Among Multiple Countries InnoCentive

116 "网络平台 + 数字资源"成为输出中国农业职业教育和优秀传统文化新模式

"Network Platform + Digital Resources" Has Become a New Model for Exporting China's Experience in Agricultural Science and Education and Disseminating the Excellent Traditional Culture

苏州农业职业技术学院 Suzhou Polytechnic Institute of Agriculture

121 "走读中国"中外网络媒体交流项目

"TRAVELOGUE OF CHINA" International Media Communication Activity 环球网 Huanqiu.com

126 以色列 INNONATION 创新国度跨境平台

Israel INNONATION Cross Border Platform INNONATION(创新国度)

130 全球互通教学平台实例:创新与技术商业化专业人士培训(佐治亚理工学院)

Global Connectivity Teaching Platform Example: Innovation and Technology Commercialization Professional Training (Georgia Institute of Technology) 美国佐治亚理工学院 Georgia Institute of Technology



数字经济创新发展

推动数字经济创新发展,促进共同繁荣

Innovative Development of the Digital Economy Promoting Innovative Development of the Digital Economy for Common Prosperity

136【精品案例】算网融合 联通世界 赋能全球数字经济创新发展

[Outstanding Case]Computing and Network Convergence Connecting the World Empower the Innovative Development of the Global Digital Economy 中国联合网络通信集团有限公司 China Unicom Global Limited

140 【精品案例】IBM 可持续计算解决方案 携手共创可持续未来

[Outstanding Case]IBM Sustainable Computing Solution to Co-Create Sustainable Future IBM(国际商业机器)

146【精品案例】阿里巴巴数字乡村携手联合国国际贸易中心助力非洲发展中国家数字减贫

[Outstanding Case]Alibaba Digital County Partnering with International Trade Centre (ITC) to Support Digital Poverty Alleviation in African Developing Countries 阿里巴巴集团 Alibaba Group

150【精品案例】德国史太白技术转移中心:打造专业技术转移数字化平台

[Outstanding Case]German Steinbeis Technology Transfer Center: Creating a Digital Platform for Professional Technology Transfer 德国史太白大学图宾根全球研究所 Steinbeis Global Institute Tubingen

154 全球支付及清算体系建设项目

Global Payment and Settlement System Project 中国工商银行股份有限公司 Industrial and Commercial Bank of China Limited

158 数聚上合,携手向远——中国—上海合作组织数字技术合作发展论坛

Together We Go Further——China–Shanghai Cooperation Organization Digital Technology Cooperation and Development Forum 中国信息通信研究院 China Academy of Information and Communications Technology 中国 – 上海合作组织大数据合作中心 China–SCO Big Data Cooperation Center

163 工业互联网产业联盟

Alliance of Industrial Internet 中国信息通信研究院 China Academy of Information and Communications Technology

169"建行全球撮合家"跨境智能撮合综合服务平台

CCB Match Plus Smart Matchmaking Platform 中国建设银行股份有限公司 China Construction Bank

174 极智嘉:智能物流机器人助力全球物流行业提升数字化、智能化水平

Geek+: Smart Logistics Robots Elevating Global Logistics to New Heights of Digitalization and Intelligence 北京极智嘉科技股份有限公司 Beijing Geekplus Technology Co., Ltd.

178 为小微企业便捷通关,注入民生动力(民生快贷 - 关税保函)

Contributing Minsheng Power in Facilitating Customs Clearance for Micro and Small Enterprises (Minsheng Express Loan – Letter of Guarantee for Customs Duty)

中国民生银行股份有限公司总行交易银行部、生态金融部

The Transaction Banking Department and the Digital Finance Innovation Department of the Head Office of China Minsheng Banking Corporation Limited

182 推动数字普惠金融技术共享,蚂蚁助力深化数字丝路建设

Promoting the Sharing of Inclusive Financial Technology and Ant Group's Assistance in Deepening the Construction of the Digital Silk Road 蚂蚁科技集团股份有限公司 Ant Group

186 元宇宙技术重塑客户电信业务体验,助力运营商高阶运营自智

The Metaverse Re-Invents Telco Service Experience and Assists Autonomous Operations to Higher Level 中国电信集团有限公司 China Telecommunications Corporation

191 "欧数中算"数据安全计算平台

"EUCN-S" Platform: Secure Computing Platform of EU Data with Resources in China 同态信息科技(西安)有限公司 Tongtai Information Technology (Xi'an) Co. Ltd. 上海同态信息科技有限责任公司 Shanghai Tongtai Information Technology Co. Ltd.

196 "一站式"跨境电商外综服平台,助力全球中小企业跨境贸易数字化转型

"One-Stop" Comprehensive Service Platform for Cross-Border E-commerce and Foreign Trade, Empowering Global SMEs in Digital Transformation of Trade 平安银行 Ping An Bank

200 德国亥姆霍兹联合会推动双边科技成果转化工作

Helmholtz Association of German Research Centers Promote the Transformation of Bilateral Scientific and Technological Achievements 德国亥姆霍兹联合会 Helmholtz Association of German Research Centres

204 科技向善弥合医疗数字游沟,助力构建人类卫生健康命运共同体

Bridging the Global Divide on Digital Healthcare Through Technology for Good and Dedicating to a Community with a Shared Future for Mankind 杭州医策科技有限公司 PathoAl

210 护航上云之旅:浩鲸科技助力全球企业云上数字化转型

Accelerating the Journey to the Cloud: Whale Cloud Enables Cloud Transformation for Global Enterprises 浩鲸云计算科技股份有限公司 Whale Cloud

215 这锂换电智慧能源网络新基建

A New Infrastructure of Intelligent Energy Network for Lithium Batteries-Swapping (Named IIENet) 杭州宇谷科技股份有限公司 Hangzhou Yugu Technology Co.,Ltd.



网络安全保障

保障网络安全,促进有序发展

Cybersecurity Maintenance Maintaining Cybersecurity to Promote Orderly Development

222【精品案例】全球基础数据共享 保障网络空间安全

[Outstanding Case]Global Internet Infrastructure Data Sharing for Ensuring Security in Cyberspace 美国 DomainTools 公司 DomainTools Co.

228【精品案例】亚运天穹-践行亚运理念,筑牢安全防线

[Outstanding Case]Global Internet Infrastructure Data Sharing for Ensuring Security in Cyberspace 杭州安恒信息技术股份有限公司 Hangzhou Dbappsecurity Co., Ltd.

232 基于人工智能的基础电信网络威胁信息共享与安全事件运营平台

Artificial Intelligence-Based Threat Information Sharing and Security Event Operation Platform for Fundamental Telecommunications Networks 中国移动通信集团有限公司 China Mobile

236 中国反诈成功实践

Successful Anti-Fraud Practice in China 公安部刑事侦查局 Criminal Investigation Bureau of the Ministry of Public Security

241 深信服勒索病毒防护解决方案,持续保护东南亚用户数字安全

Sangfor's Ransomware Protection Solution Persistently Ensures Digital Security for Customers in Southeast Asia 深信服科技股份有限公司 Sangfor Technologies Inc.

245 网络安全立法洞察

Cybersecurity Legislation Insights 普华永道商务咨询(上海)有限公司 PricewaterhouseCoopers Business Consulting (Shanghai) Co., Limited

250 EY 数字化风险洞察系统: 纵览全球, 护航数据安全智能合规

EY Digital Risk Insight System: A Global View to Escort Data Security and Intelligent Compliance 安永(中国)企业咨询有限公司 Ernst & Young (China) Advisory Limited

254 以体系化建设思路统筹数据安全,实现数据、业务与安全的融合发展

Coordinating Data Security with Systematic Construction Ideas to Achieve the Integrated Development of Data, Business and Security 中国外运股份有限公司 Sinotrans Co., LTD

目录 contents



网络空间国际治理

构建互联网治理体系,促进公平正义

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

260【精品案例】中国互联网治理论坛(中国 IGF)

[Outstanding Case]China Internet Governance Forum (China IGF) 中国互联网协会 Internet Society of China

266【精品案例】全球智慧城市大会:促进全球城市协同发展,建立互信合作机制

[Outstanding Case]Smart City Expo World Congress: Promoting Global Urban Collaborative Development and Establishing Mechanisms for Trust and Cooperation 上海明日城市企业发展有限公司 Shanghai Tomorrow City & Enterprise Development. Co.,Ltd

272 APEC 数字技术防疫促进经济复苏和社会可持续发展

Going Digital to Promote Resilience and Sustainable Growth in Response to COVID-19 国家工业信息安全发展研究中心 China Industrial Control Systems Cyber Emergency Response Team(CIC)

276 中国一东盟网络安全交流培训中心,着力推动中国与东盟国家网络安全产业发展

CHINA-ASEAN Cybersecurity Exchange and Training Center, Focusing on Promoting the Development of Cybersecurity Industry in China and ASEAN Countries 数字广西集团有限公司 Digital Guangxi Group Co., Ltd







网络基础设施建设,促进互联互通

Internet Infrastructure Construction

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity





智慧教室——产教融合构建网络空间学习共同体

Smart Classroom——Ally Industrial and Educational Endeavor to Forge a Cyberspace Learning Community



联合国教科文组织高等 教育创新中心旗舰项 目——智慧教室

The flagship program of the International Centre for Higher Education Innovation under the auspices of UNESCO (UNESCO-ICHEI) – The Smart Classroom

申报机构 Applying Institution

联合国教科文组织高等教育创新中心(中国深圳)

The International Centre for Higher Education Innovation under the auspices of UNESCO (UNESCO–ICHEI)



其他参与机构 Other participating organizations

▶ 全球共建高校

Global Partner Universities

✔ 已建成 👒

艾哈迈德・贝洛大学(尼日利亚)、艾因夏姆斯 大学(埃及)、冈比亚大学(冈比亚)、吉布提 大学(吉布提)、金边皇家大学(柬埔寨)、科 伦坡大学(斯里兰卡)、拉合尔工程技术大学(巴 基斯坦)、马克雷雷大学(乌干达)、蒙古科技 大学(蒙古)、内罗毕大学(肯尼亚)、万隆理 工学院(印尼)、亚的斯亚贝巴大学(埃塞俄比亚)

✔ 已签约

吉尔吉斯国立大学(吉尔吉斯斯 坦)、卡迪艾亚德大学(摩洛哥)、 马来西亚博特拉大学(马来西亚)、 塔什干信息技术大学(乌兹别克斯 坦)、特里布万大学(尼泊尔)

3

 ▶技术与学科支持:南方科技大学
▶硬件支持与捐赠: 伟东云教育集团、 广州创显科教股份有限公司、广州视 睿电子科技有限公司(希沃)、武汉噢 易云计算股份有限公司
▶软件支持与赋能:金山办公、江西科

骏实业有限公司

Construction Completed: Ahmadu Bello University (Nigeria), Ain Shams University (Egypt), University of The Gambia (The Gambia), University Of Djibouti (Djibouti), Royal University Phnom Penh (Cambodia), University Of Colombo (Sri Lanka), University of Engineering and Technology, Lahore (Pakistan), Makerere University (Uganda), Mongolian University of Science and Technology (Mongolia), University Of Nairobi (Kenya), Bandung Institute of Technology (Indonesia), Addis Ababa University (Ethiopia).

Under Construction: Kyrgyz National University (Kyrgyzstan), Cadi Ayyad University (Morocco), Universiti Putra Malaysia (Malaysia), Tashkent University of Information Technologies (Uzbekistan), Tribhuvan University (Nepal)

-Technical and Educational Support: Southern University of Science and Technology

-Weidong Cloud Education Group, Guangzhou Createview Education technology co., ltd, Guangzhou Shirui Electronic Technology Co., Ltd (Seewo), OS-EASY Group Holding Ltd.

–Software Support: Beijing Kingsoft Office Software, Inc., Jiangxi KMAX Industrial Co., Ltd.



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementatio

其他参与机构 LOGO

埃及、埃塞俄比亚、巴基斯坦、冈比亚、中国等 18 个国家和地区 18 countries and regions such as Egypt, Ethiopia, Pakistan, Gambia, China

数字化基础设施是实现教育数字化变革的关键。联合国教科文组织高 等教育创新中心携手中国教育技术企业与全球高等教育院校共同推进 "智慧教室项目",以应对"数字鸿沟"挑战及支持惠及全球高校的 数字基础设施建设。

Digital technology has become a leading force in the development of higher education, and digital infrastructure is essential to the digital transformation of education. However, universities in developing countries face a digital divide in terms of financial support, human capacity, and experience in using digital infrastructure amidst the global wave of technological revolution and digital transformation. To address these challenges, the International Centre for Higher Education Innovation under the auspices of UNESCO (UNESCO–ICHEI), in collaboration with Chinese Ed–Tech enterprises and global Higher Education Institutions (HEIs), is promoting the Smart Classroom Project, an innovative solution to support the development of digital infrastructure that benefits higher education systems around the world.

"一个国家,一所高校,一间教室",国际 组织 - 企业 - 高校合作开启数字发展之门

"One Country, One University, One Classroom," international organisation—enterprise—university cooperation paves the way for digital development

自 2017 年开始,创新中心与伟东、创显科教、希沃、噢 易云等企业以及南方科技大学合作,以企业无偿捐建信息 化教育基础设施,南科大提供专业支撑、开展学科合作的 形式,陆续在全球多个发展中国家建设智慧教室,以提升 当地高校数字信息基础设施水平,为教学活动提供个性化、 智能化的互动空间,促进教育高质量发展。

Since 2017, UNESCO–ICHEI has partnered with private sponsors, including Weidong, Creatview, Seewo, and OS–EASY, to establish digital education infrastructure in developing countries, as well as gaining disciplinary and instructional technical support from the Southern University of Science and Technology (SUSTech), China. Smart Classrooms have benefited a dozen universities in the developing world, and the project aims to enhance local universities' digital education equipment, provide personalized and intelligent interactive spaces for teaching activities, and promote future–oriented innovation in education.

智慧教室项目采用"一国、一校、一教室"的模式,在每 个参与项目的发展中国家选取一所顶尖大学搭建示范性项 目,并依托智慧大屏、录播系统、虚拟现实、教学机器人 等技术与设备开展丰富多样的创新教学活动,推动数字教 育资源的共建共享。截至 2023 年 6 月,智慧教室项目已 在埃及、埃塞俄比亚、巴基斯坦、冈比亚、吉布提、柬埔 寨、肯尼亚、蒙古国、尼日利亚、斯里兰卡、乌干达、印 度尼西亚等 18 个国家完成部署并投入使用。 The Smart Classroom Project follows the model of "One Country, One University, One Classroom," which involves the selection of a flagship university in each developing country to establish an exemplary digital transformation project.

Leveraging digital educational technologies such as smart screens, recording systems, Virtual Reality (VR), and educational robots, diverse, innovative teaching activities are carried out to promote collaborative construction and sharing of digital educational resources. As of June 2023, the Smart Classroom Project has been successfully deployed and used in 18 countries, including Cambodia, Djibouti, Egypt, Ethiopia, The Gambia, Indonesia, Kenya, Mongolia, Nigeria, Pakistan, Sri Lanka, and Uganda.



柬埔寨金边皇家大学智慧教室 Smart Classroom in Royal University of Phnom Penh, Cambodia

承载数字转型的共同愿景

Sharing a prospect for digital transformation



智慧教室的落成受到尼日利亚 9 家媒体的报道 Nine Nigerian media outlets cover the inauguration of smart classrooms

埃及艾因夏姆斯大学智慧教室 Smart Classroom, Ain Shams University, Egypt

目前,依托智慧教室的教育基建新场景,全球 范围内的十余所参与高校已经开展了超过3500 学时的本科及研究生阶段线上线下教学,课程 涵盖10余种语言文字,支持了超过5万人次 的学习。智慧教室的应用为发展中国家高校应 对疫情影响、构建智慧教育标准、探索教学新 模式提供了无限的可能,教育数字转型的愿景 正在变为现实。

With the infrastructural development brought by the Smart Classroom Project, the participating universities have delivered more than 3,500 hours of online and blended learning content at both undergraduate and graduate levels. Courses covering ten different languages have already benefited more than 50,000 leaners. The Smart Classrooms have provided universities in developing countries with diverse opportunities to respond to the impact of the pandemic, establish smart education standards, and foster teaching innovations. The prospect of digital transformation in higher education is becoming a new reality. 在埃及,智慧教室成为艾因夏姆斯大学应对新冠疫情影响的坚强后盾。 在疫情期间,该校利用智慧教室的远程教学功能录制混合式课程以保 障教学的连续性,受益学生超过2万人次。巴基斯坦拉合尔工程技术 大学落成的智慧教室则成为了所在地旁遮普省的教育数字化发展的典 范,在旁遮普省高教委的支持下,其他高等院校都将参照智慧教室的 标准开展数字教育基础设施的建设。在尼日利亚,智慧教室助力艾哈 迈德・贝洛大学面向7所高校开展教师能力培训,建设网络课程平台, 成为了尼日利亚教育数字化发展的引领者。

In Egypt, the Smart Classroom has provided Ain Shams University with a robust support system for coping with COVID–19. During the pandemic, the university utilized the remote teaching functions of the Smart Classroom to record online and blended courses and ensure the continuity of education. This initiative has benefited more than 20,000 students. The Smart Classroom at the University of Engineering and Technology, Lahore, has become a model for developing digital education in the province of Punjab in Pakistan. With the support of the Punjab Higher Education Commission, other higher education institutions are developing their digital education infrastructure following the Smart Classroom's standards. In Nigeria, the Smart Classroom has enabled Ahmadu Bello University to offer teacher training programs and establish an online education platform for seven universities. With the support of the Smart Classroom Project, the university has emerged as an essential hub for Nigeria's education digital transformation.

面向未来的发展共同体

A community of a shared future

教科文组织在《教育的未来》中指出数字技术在为人们赋能和建立联结等方面可以做得更多。智慧教室这一充满活力的项目, 正不断吸引更多的高校与科技企业共同努力开展新一代教育基础设施建设,构建促进教育数字发展的命运共同体。

This dynamic program of smart classrooms is continuously attracting more universities and technology enterprises to collaborate on the construction of the nextgeneration educational infrastructure in higher education. Together, the cross-sectoral alliance is constructing a community with a shared future that promotes digital advancement in education.

除了已建成的智慧教室,吉尔吉斯斯坦、马来西亚、摩洛哥、 尼泊尔、乌兹别克斯坦等国高校正在创新中心和伙伴企业 的支持下建设新的数字化教育空间,智慧教室项目也将在 中亚、东南亚、中东以及拉丁美洲和加勒比地区的40个 发展中国家落地。金山办公、科骏等更多的企业也依托智 慧教室提供软硬件公益支持,服务发展中国家高校探索人 工智能、虚拟现实等技术在教育中的应用与创新。

Universities in countries including Kyrgyzstan, Malaysia, Morocco, Nepal, and Uzbekistan are constructing new digital education spaces with the assistance of UNESCO–ICHEI and private partners. The Smart Classroom Project will also be implemented in 40 developing countries across Central Asia, Southeast Asia, the Middle East, Latin America, and the Caribbeans. More private enterprises, such as Kingsoft Office and KMAX, are participating in the Smart Classroom Project to provide hardware and software support, contributing to the exploration and innovation of Artificial Intelligence (AI), VR, and other smart Ed–Tech for universities in developing countries.

在国际组织引领的跨区域、跨部门的合作机制推动下,更 多更先进的智慧教室正在路上,不断构筑高等教育未来的 无限可能。

With a collaborative mechanism reflecting principles of "co-consultation, co-development, and co-sharing the Smart Classroom Project will present infinite possibilities for the higher education future." the multi-national and cross-sectoral effort of the Smart Classroom Project will present infinite possibilities for the higher education future.



印尼万隆理工学院智慧教室落成 "Smart Classroom" Inaugurated at Bandung Institute of Technology, Indonesia

智慧教室在冈比亚的部署与相关培训 Smart Classroom Deployment and Training in Gambia

亚洲直达(ADC)国际海缆横贯亚洲, 更高容量、更强安全,助力企业数字化转型

Asia Direct Cable (ADC) Traversing Asia with Higher Capacity and Greater Security, Helping Enterprises Digital Transformation



中国电信集团有限公司

China Telecom



其他参与机构 Other participating organizations

中国电信、中国联通、泰国国家电信、新加坡电信、软银、 塔塔通信、越南 Viettel Group、菲律宾 PLDT

China Telecom, China Unicom, Thailand NT, Singapore Telecommunications, SoftBank, Tata Communications, Vietnam Viettel Group, Philippine PLDT



亚洲直达(ADC)国际海缆互联路径图 ADC interconnection route map

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、中国香港、新加坡、越南、泰国、菲律宾、日本 China, Hong Kong (China), Singapore, Vietnam, Thailand, Philippines, Japan

为满足不断增长的互联网流量和数字化需求,加强亚洲各国之间的网络基础设施建设,促进互联互通, 亚洲直达海缆(Asia Direct Cable System,以下简称 ADC 海缆)致力于在亚洲地区提供高速、稳定的海 底通信网络。

To meet the growing demand for internet traffic and digitization, strengthen the construction of network infrastructure in Asia, and promote interconnectivity, Asia Direct Cable System (hereinafter referred to as ADC submarine cable) is committed to providing high–speed and stable submarine communication networks in the Asian.

7



一. 优化网络布局、促进"一带一路"合作

Optimize network layout, promote "Belt and Road" cooperation

为积极促进"一带一路"国际合作,提高国际通信基础设施互联互通水平,满足亚太地区日益增长的国际带宽需求, 优化国际通信网络布局,中国电信集团有限公司(以下简称中国电信)、中国联合网络通信集团有限公司联合六家 主流境外运营商联合发起了亚洲直达国际海底光缆系统的 工程建设。ADC海缆的建设极大地促进亚洲地区的经济 合作与发展,并为人们提供可靠的网络接入服务。

To actively promote international cooperation under "Belt and Road," improve the connectivity of international communications infrastructure, meet the growing demand for international bandwidth in the Asia–Pacific region, and optimize the layout of international communications networks, China Telecom Group Co., LTD. (hereinafter referred to as China Telecom) and China United Network Communications Group Co., LTD., together with six major overseas operators, jointly launched the construction project of the Asia direct submarine cable system. The construction of ADC submarine cables significantly promotes economic cooperation and development in Asia and provides people with reliable network access services.

二. 横跨亚洲、超大海缆容量, 巩固沿途节 点的互联枢纽地位

Cross Asia, super large submarine cable capacity, consolidating the interconnection hub position of nodes along

ADC海缆工程由中国电信主导发起建设,是一个连接中国、 日本、新加坡及亚太区域主要国家和地区的高容量国际海 底光缆项目,总长度约9600公里,将配备8个光纤对, 承载超过140 Tbps的流量,从菲律宾八打雁延伸至新加 坡大士、中国香港舂坎角、中国广东汕头、日本丸山、越 南归仁、泰国是拉差,预计2024年第一季度可完成建设。

The ADC Submarine Cable project, led by China Telecom, is a high–capacity international submarine cable project connecting China, Japan, Singapore, and major countries and regions in the Asia–Pacific region. The total length is about 9,600 kilometers, and it will be equipped with eight fiber pairs, carrying more than 140 Tbps of traffic. Stretching from Batangas in the Philippines to Tuas in Singapore, Chung Hom Kok in Hong Kong, China, Shantou in Guangdong, China, Marushan in Japan, Qui Nyan in Vietnam, and Seracha in Thailand, the project is expected to be completed in the first quarter of 2024.

2022 年 11 月 菲律宾长途电话公司 (PLDT) 宣布 ADC 海底光缆已在菲律宾八打雁省纳苏格布 (nasugbu) 海缆登陆 站登陆。

In November 2022, the Philippine PLDT announced that the ADC submarine cable had landed at the nasugbu submarine cable landing station in Batangas Province of the Philippines.

2023 年 1 月 12 日 中国电信国际有限公司与香港排名第一的数据中心服务商及连接枢纽新意网集团有限公司联合宣 布,亚洲直达国际海底光缆系统香港段成功登陆新意网设于春坎角的 HKIS-1,并与新意网超大规 模数据中心 MEGA Plus 设立新的海底光纤网络接点。

On January 12, 2023, China Telecom Global and the NEV Group, the No.1 data center service provider and connectivity hub in Hong Kong, jointly announced that the Hong Kong section of the ADC Submarine Cable System has successfully landed on NEV's HKIS–1 in Chung Hom Kok, and set up a new undersea fiber optic network contact point with the super large–scale data center MEGA Plus.

三.多方协同、多元化投资方式降低风险,新技术提高海缆系统的效率和稳定性

Multi-party cooperation and diversified investment methods reduce risks, and new technologies improve the efficiency and stability of the submarine cable system

ADC 海缆系统的建设得到各国政府、运营商、设备制造商等各方面的积极支持和配合。这种协同合作的方式加快了海缆系统的建设和推广。ADC 海缆系统由多家运营商共同投资建设,这种多元化投资的方式降低了投资风险,促进项目建设和运营,增强了项目实施的可行性和成功率。

The construction of the ADC submarine cable system has been actively supported and cooperated by governments, operators, equipment manufacturers, and other partners. Such a collaborative approach has



accelerated the construction and promotion of submarine cable systems. The ADC submarine cable system is jointly invested by several operators. This diversified investment method reduces investment risks, promotes project construction and operation, and enhances project implementation's feasibility and success rate.

同时,ADC海缆穿越多个国家和地区,实现了亚太国家之间的直接通信。这种跨洲联合建设的方式在国际通信领域具有创新性,可以大大提高通信效率和降低通信成本。

Secondly, the ADC submarine cable traverses multiple countries and regions, enabling direct communication between Asia–Pacific countries. This way of trans– continental joint construction is innovative in the field of international communication, which can significantly improve the efficiency of communication and reduce the cost of communication.

最后,从技术角度,ADC海缆采用了最新的通信技术,包括大容量、高速率的光传输技术和智能化网络管理技术等,例如 业界先进的多纤对开放海缆(Open Cable)模式,单对纤设计容量可达 16Tb/s 以上,该技术的应用极大地提高海缆系统的 传输效率和网络稳定性。

Finally, from the technical point of view, ADC submarine Cable adopts the latest communication technology, including large–capacity, high–rate optical transmission technology and intelligent network management technology, such as the industry's advanced multi–fiber Open Cable mode, the design capacity of a single fiber pair can reach more than 16Tb/s. The application of this technology significantly improves the transmission efficiency and network stability of the submarine cable system.

四.满足客户业务需求、提升亚太区域网络整体安全性、降低运行成本

Meeting customer business needs, improving overall network security in the Asia Pacific region, and reducing operating costs

近年来互联网行业飞速发展,5G网络、物联网、人工智能、 云、视频等应用,国际带宽需求增长迅猛,尤以中国大陆、 中国香港、新加坡及日本之间的带宽需求最为旺盛。ADC 海缆建设可以满足日益增长的业务需求。

In recent years, the Internet industry has developed rapidly. With the application of 5G networks, IoT, AI, cloud, video, and other applications, the demand for international bandwidth has proliferated, especially between the Chinese Mainland, Hong Kong, Singapore, and Japan. ADC submarine cable construction can meet the growing business needs.

目前的 APCN2 和 SJC 海缆的部分段落路由近似,受地震带影响历史上曾多次发生阻断故障。ADC 海缆可以实现更多路由的负荷分担,提高亚太区域国际网络整体安全性。

Some sections of the current APCN2 and SJC submarine cables are similar in routing and have been affected by seismic zones with many blocking failures in history. ADC submarine cable can realize load sharing of more routes and improve the overall security in the Asia–Pacific region.

最后,中国电信认为新技术的应用,使海缆投产后能大大 降低亚太内部单位带宽成本,提升 ADC 海缆在国际市场 的竞争优势,降低网络运行成本。

Finally, China Telecom believes that the application of new technologies can significantly reduce the unit bandwidth cost within the Asia–Pacific region after the submarine cable is launched, enhance the competitive advantage of ADC submarine cables in the international market, and reduce network operating costs.

欧盟创新驿站网络(IRC):搭建线上协作网络

Innovation Relay Center (IRC): Building an Online Collaboration Network



21 countries and regions such as Austria, Belgium, Bulgaria, Croatia



欧盟创新驿站网络(IRC)服务覆盖范围 Service coverage of the Innovation Relay Center(IRC)



欧盟创新驿站网络(IRC)由欧洲委员会于1995年建立, 旨在建立一个覆盖全欧洲的网络合作平台,为欧洲的 创新和跨国技术合作提供一系列专业的商业支持服务。

The European Innovation Relay Center (IRC) network was established by the European Commission in 1995 with the aim of establishing a network collaboration platform covering the entire Europe. It provides a range of professional business support services for innovation and cross-border technological cooperation in Europe.

欧盟创新释站网络(IRC)的跨国服务模式

The cross-border service model of Innovation Relay Center network

欧盟创新驿站网络(IRC)作为跨国网络,IRC 通过连接知 识、技术和人员推动创新与竞争,是欧洲创新和跨欧洲技 术合作与转让的跳板,为欧洲的企业和机构获取技术、研 究与创新提供了有效的桥梁。欧盟创新驿站由设在卢森堡 的中央服务机构——网络秘书(Network Secretariat)负责 协调。网络秘书处为官方机构,由欧盟企业总司负责管理。 各国设立协调机构(National Coordinators)负责国内创新 驿站项目实施。创新驿站之间通过电子公告栏系统(Business bulletin system)连接。各协调机构一般设在公共结构中, 比如大学技术中心、商会、区域发展机构和国家创新机构等。 借助该平台,创新驿站可以互通有无,通过网络论坛发布 供需信息,寻求更多跨地区、跨国际的合作机会。



IRC 技术专业工作步骤 IRC Technical Specialization Steps

Innovation Relay Center is a transnational network that promotes innovation and competition by connecting knowledge, technology, and people. It serves as a platform for European innovation and cross–European technology cooperation and transfer, providing an effective bridge for European businesses and institutions to access technology, research, and innovation. The European Union Innovation Relay Centre is coordinated by the Network Secretariat, which is based in Luxembourg. The Network Secretariat is an official institution managed by the Directorate–General for Enterprise and Industry of the European Union. National Coordinators are established in each country to oversee the implementation of national Innovation Relay Centre projects. The Innovation Relay Centres are connected through a business bulletin system, which serves as an electronic notice board. The coordinating institutions are typically located in public structures such as university technology centers, chambers of commerce, regional development agencies, and national innovation agencies. Through this platform, Innovation Relay Centres can exchange information, publish supply and demand information on online forums, and seek more cross–regional and international cooperation opportunities.

欧盟创新码站网络(IRC)线上服务平台的支撑服务

Supports for online service platform provided by Innovation Relay Center (IRC)

通过这个线上服务平台,技术供给方和需求方可以申请成为 IRC 平台会员,拥有一定发布、查找信息的权限,而且会在与 当地创新驿站的深入合作中,加强对技术发展和产业需求的把握,促进当地产业和企业的发展。IRC 网络至今已经拥有了 13000 余个合作技术提供方和技术需求方,主要为中小企业,同时参与 IRC 网络平台的用户还包括大型企业、科研机构、 高校和行业协会等。其中具有研发能力的大企业可以借助 IRC 将技术成果进行转移,也可以选择在 IRC 网络中寻找适合的 合作对象;科研机构和高校作为技术研发机构成为 IRC 平台重要的技术提供方。作为欧洲网络的成员组织,IRC 将其区域内 及其他国家的创新能力紧密连接,使当地企业能够从最佳的供应商处获得它们所需的技术,并为拥有专门知识的企业提供 一个通向新市场的渠道,这些市场不仅包括欧洲各国,同时也包括美洲、亚洲、大洋洲和非洲的诸多国家。 Through this online service platform, technology providers and demanders can apply to become members of the IRC platform, with certain permissions to publish and search for information. Through deep cooperation with local innovation stations, they can better grasp technological development and industrial needs, promoting the development of local industries and enterprises. The IRC network currently has over 13,000 cooperating technology providers and demanders, mainly small and medium-sized enterprises. Users participating in the IRC network platform also include large enterprises, research institutions, universities, and industry associations. Large enterprises with R&D capabilities can transfer their technological achievements through IRC or find suitable partners for cooperation within the IRC network. Research institutions and universities, as important technology providers, play a crucial role in the IRC platform. As a member organization of the European network, IRC closely connects the innovation capabilities within its region and other countries, allowing local enterprises to obtain the technology they need from the best suppliers. It also provides a channel to new markets for companies with specialized knowledge, including not only European countries but also many countries in the Americas, Asia, Oceania, and Africa.

IRC support services



IRC 的支撑服务 IRC support services



所签署协议性质 Nature of agreements signed

欧盟创新驿站网络(IRC)的社会影响力

The Social Impact of Innovation Relay Center (IRC)

IRC 整合全球信息资源服务于欧洲企业,由于 IRC 提供专业的服务并对中小企业产生了一定的影响,IRC 被公认为当地创新基础设施的重要组成部分。各联盟组织不仅与工业界、中小企业和研究领域的客户维持着良好且持续的关系,融入到了更广泛的区域创新体系中,并与欧洲和国家级商业支持机构进行日常合作。

IRC integrates global information resources to serve European enterprises. Due to its professional services and impact on small and medium– sized enterprises, IRC is recognized as an important component of local innovation infrastructure. The alliance organization maintains strong and sustained relationships with industry, small and medium–sized enterprises, and research clients, integrating into a broader regional innovation system, and collaborating with European and national level business support institutions on a daily basis.. 在 IRC 网络平台的推动下,专门从事科学应用领域并 行计算的意大利公司 Aethia 和为生物技术领域提供 IT 支持的西班牙公司 NorayBio 结成了联盟,旨在为 生物技术研究人员提供在经济上可承担的"超级计算 机"。两家中小企业通过 IRC 网络相互介绍并签署了 合作协议,这其中包括互相转让对方的技术。双方还 将在技术的互惠营销方面进行合作,扩大市场机会, 共同参与由欧盟资助的研发项目,未来将继续探索能 够发现新药的活性化合物应用。

Under the promotion of the IRC network platform, the Italian company Aethia, specializing in parallel computing in the field of scientific applications, and the Spanish company NorayBio, providing IT support for the biotechnology, have formed an alliance. The alliance aims of provide affordable "supercomputers" for biotechnology researchers. The two small and medium–sized enterprises introduced each other through the IRC network and signed a cooperation agreement, including the transfer of each other's technologies. They will also cooperate in reciprocal marketing of technologies, expand market opportunities, and jointly participate in EU–funded research and development projects. In the future, they will continue to explore the application of active compounds that can discover new drugs.





所签署协议的客户类型覆盖面广

Wide coverage of the types of clients for which agreements have been signed

爱立信新能源基站让零碳运行成为可能

Making Zero-Carbon Operation Possible for Sites with Ericsson's Innovative Solutions



爱立信(中国)通信有限公司 Ericsson (China) Communications Co., Ltd. ERICSSON

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation /

澳大利亚、中国、德国、葡萄牙、意大利、墨西哥 Australia, China, Germany, Portugal, Italy, Mexico



爱立信公司在广州增城的新能源基站,利用太阳能为基站 进行供能 Ericsson's solar-energy site in Zengcheng, Guangzhou

爱立信一直致力于新能源基站方案的创新,助力实现碳达峰和碳中和。爱立信"赋智型"新能源基站系统可将能源 系统与基站系统紧密协同,为实现基于 AI 的能源管理、基站节能和业务调度的协调统一打下坚实基础。

Ericsson has been committed to the innovation of green site solutions, contributing to achieving carbon peak targets and carbon neutrality. Ericsson's "Empowering Intelligence" Green Site solution has integrated the energy system and the base station, laying a solid foundation for AI–based energy management, energy saving, and service scheduling.

一、在全球多地部署新能源基站,大幅降低基站能耗和用电成本

Deployment of green sites globally and significantly reducing energy consumption and cost

爱立信新能源基站方案,采用自身全套软硬件系统,保证 了统一的制造和服务质量;沿用 5G 基站同等的安全性管 理,防范攻击;将所有能源接入统一调度单元,力求能源 最优调度,实现了"新能源基站"全栈综合监管;能源状 态、基站节能与业务自主协同,进一步提升节能潜力,为 引入 AI 打下坚实基础。

Ericsson's Intelligent Green Site solution adopts one package of selfdeveloped software and hardware systems, ensuring unified manufacturing and service quality standards. This solution features prominently in security since it adopted the same level of security management as the 5G base to prevent security attacks. Also, the solution connects all energy sources to the control unit and has enabled unified and full–stack management to optimize energy scheduling. Besides, it is also possible to realize synergies between the energy system (energy status and energy saving) and the base station, which will further lift energy–saving potential and facilitate the introduction of Al management.



爱立信公司与德国电 信合作建设的新能源 基站,系同时具备风 能和太阳能的站点

The green site jointly built by Deutsche Telekom and Ericsson, both wind and solar energy are powering the site

方案自推出以来,取得了良好的效果,已在亚洲、欧洲、非洲和拉丁美洲开通了上百个站点,更多商业合同正在洽谈中。 值得一提的是,新能源基站与爱立信微波解决方案兼容,能够在农村地区和无法获得传统市电的情况下部署,以提供电信 普遍服务。同时,该解决方案也可以在电力供应紧张的城市站点上部署,以缓解紧张的电力供应。

More than 100 sites have been established in Asia, Europe, Africa, and Latin America since its launch in Germany with good performance. More green site contracts are under negotiation. It is worth mentioning that the intelligent green sites are compatible with Ericsson's microwave solution, enabling the deployment of wireless base stations throughout rural areas and locations where the traditional grid is not available to provide universal telecommunications services. Similarly, this solution can also be employed in cities with tight power supply to ease the power supply challenge.

二、携手中国移动建设高能效 5G 智能基站

Successful Practice of Ericsson's Intelligent Green Site with CMCC

2022 年,爱立信与江苏移动合作开通 700MHz 频段的 5G 智能基站,可实现零碳运营。结合当地的日照条件和站点 实际的耗电情况,通过模拟仿真,计算出需要的太阳能电 池板配置。试运行之后,太阳能系统完全可以满足基站的 用电需求,储能系统可以补充阴雨天和晚上的用电需求, 基本实现了 100% "绿色"能源运行,这也为偏远地区或 者供电不便区域部署新能源基站树立了样板。

爱立信还与广东移动合作开通了 2.6GHz 频段的 5G 智能 基站。在此次合作中,中国移动采用了爱立信的能源系统, 采用混合能源管理,优化光伏、市电和蓄电池等多类型能 源的使用,以实现基站最高能效的运行。这些产品通过爱 立信网络管理器(ENM)实现了集成和验证,并可实现 远程管理。 In 2022, Ericsson and CMCC Jiangsu have jointly launched a 5G intelligent green site with solar on 700MHz band, which can achieve zero carbon operation. Based on the local solar conditions and the power consumption of the base station, we have simulated the required solar panel configuration. After the trial operation, the solar system can fully meet the power demand of the site, and the energy storage system can supplement the power demand on rainy days and nights, achieving 100% "green" energy operation. This case indicates that the new energy base station is also suitable for deployment in remote areas or areas with inconvenient power supply.

Ericsson has also partnered with CMCC Guangdong to launch an energyefficient site on the 2.6GHz band. China Mobile has implemented Ericsson's power system for this collaboration, enabling hybrid energy management. It optimizes energy use from solar, grid, and battery to achieve the most energy efficient operation. The products can be integrated and verified with a remote management option via the Ericsson Network Manager.



除此之外,爱立信公司与河北移动和黑龙江移动合作,正在筹备建设新能源试点基站。新的爱立信智能基站能够提供全新水准的质量保障、多种能源的智能管理、全栈实时监控、以及智能的能源与服务协同。

Besides, Ericsson is also working with CMCC Hebei and Heilongjiang to initiate pilot green sites. The new Ericsson Smart Site offers new levels of quality assurance, intelligent administration of various energy sources, full stack real-time monitoring, intelligent energy, and service synergy.





统一网管系统实时监测管理 Unified Network Management and Real-time Monitoring

三、全力推动新能源基站建设,助力经济社 会的绿色可持续发展

Promoting the development of green sites and sustaining the societal and economic development

上述案例只是爱立信新能源基站国际合作的冰山一角,但 项目节能减排带来的经济效益不容小觑。2021年,爱立 信和德国电信联合改造升级后的基站,能够同时使用太阳 能和风能,两种能源的共同加持能够提供高达五千瓦的电 力,意味着该站点理论上无需其他电源供电。2022年, 爱立信与江苏移动合作建设的绿色基站,每年每站可节约 电能达 2628kWh,节省电费约 3942元(按1.5元/kWh 计),减少碳排放约1700kg。中国作为5G发展的排头兵, 截至 2023年7月,已累计建成5G基站超305万个。未来, 绿色基站蕴含着巨大的发展潜力,将大幅减少能源成本, 优化能源结构,有力推动行业绿色转型和经济社会的可持 续发展。 The abovementioned cases are just the tip of the iceberg of Ericsson's practice in international cooperation with green sites. These examples illustrate the considerable economic benefits of energy conservation and emission reduction.

In 2021, Ericsson and Deutsche Telekom jointly renovated and upgraded sites to simultaneously use solar and wind energy. The combined two clean energy sources can provide up to five kilowatts of power, meaning the site does not need other power supplies.

The green site jointly built by Ericsson and CMCC Jiangsu in 2022 can save 2,628kWh of electricity per station every year, electricity bills of around 3,942 CNY (based on 1.5 CNY/kWh), and reduce carbon emissions by about 1,700kg per year. As the pioneer of 5G development, China has built over 3.05 million 5G sites as of July 2023.

The way forward, the development of green sites offers excellent potential for significantly reducing energy costs, optimizing energy structure, and effectively promoting the green transition and the sustainable development of the economy and society.

空间-地面全球望远镜网络

Space-Ground Global Telescope Network



申报机构 Applying Institution

广西大学

Guangxi University



空间 - 地面望远镜网络(来源:GCN 网站) Space-Ground Global Telescope Network(Source: GCN Website)

其他参与机构 Other participating organizations

中国科学院国家天文台、中国科学院高能物理研究所、 中国国家航天局、法国国家空间研究中心、美国宇航局

Chinese Academy of Sciences National Astronomical Observatory, Institute of High Energy Physics, Chinese Academy of Sciences, China National Space Administration (CNSA), French National Space Research Center (CNES), National Aeronautics and Space Administration (NASA)

案例涉及的国家和地区 Countries and Bacians Covered or Involved in the

Countries and Regions Covered or Involved in the Implementation

美国、法国、意大利、英国、澳大利亚等 12 个国家和地区

12 countries and regions such as United States of America, France, Italy, United Kingdom, Australia



现在是多信使天文学蓬勃发展的新时代,在多波段上对天文暂现源的即时响应观测、快速后随至关重要。广西大学以构建命运共同体为目标,部署了空间 – 地面全球望远镜网络,建立全球协同观测,实现人类对宇宙奥秘的共同追求。

We are now in a new era of thriving astrophysics, where immediate, multiwavelength observations of transient astronomical sources and rapid followups are of paramount importance. Guangxi University, aiming to build a community with a shared future, has deployed a space-ground global telescope network, establishing global collaborative observations to pursue the mysteries of the universe collectively.

助力构成空间 - 地面全球望远镜网络

Contributing to the formation of the Space-Ground Global Telescope Network.

广西相对论天体物理重点实验室集基础研究、技术攻关、科学工程于一体,合作部署了覆盖全球的多台空间望远镜和地面望远镜网络,建立协同观测机制,可以做到对各类目标源在多波段即时响应观测。

The Guangxi Key Laboratory for Relativistic Astrophysics integrates fundamental research, technological breakthroughs, and scientific engineering. It collaboratively deploys a global network of space and ground-based telescopes, establishing a coordinated observation mechanism for real-time, multi-wavelength observations of various celestial targets.

空间望远镜网络主要包括中国的第一台太空望远镜硬 X 射线慧眼卫星 Insight-HXMT、美国宇航局发射的 Swift 卫星、美国研制的全球首个可 进行伽马射线全天时观测的空间望远镜 Fermi、美国发射的 X 射线成像 偏振探测器 IXPE,以及预计在 2023 年升空的中法合作的以研究伽马暴 为主的 SVOM 卫星。

The space telescope network includes China's first space telescope, the Hard X-ray Modulation Telescope (Insight–HXMT), NASA's Swift satellite, the first space telescope capable of all–sky gamma–ray observations (Fermi), NASA's X–ray Imaging Polarimetry Explorer (IXPE), and the Sino–French collaboration SVOM satellite, primarily dedicated to the study of gamma–ray bursts, scheduled for launch in 2023.

地面望远镜网络包括小型光学望远镜快速后随测光(主要有广西大学主导的位于国家天文台兴隆观测基地的两台 60cm 望远镜 GWAC-60,以及全球望远镜网络 LCOGT 的 1 米光学望远镜)、2-10 米级望远镜深度测光和测谱、五百米口径球面射电望远镜(FAST)、高海拔宇宙线观测站(LHAASO)等。

The ground–based telescope network encompasses small optical telescopes for rapid follow– up photometry, including the two 60cm telescopes (GWAC–60) led by Guangxi University at the Xinglong Observatory of the National Astronomical Observatory, as well as 2–10 meter class telescopes for deep imaging and spectroscopy, Five–hundred–meter Aperture Spherical radio Telescope (FAST), and the Large High Altitude Air Shower Observatory (LHAASO).



多信使多波段巡天、快速后随、 深度测光测谱和多时区协作

Multi-messenger, ulti-wavelength sky surveys, rapid follow-up observations, deep photometry, spectroscopy, and multi-timezone collaboration



GWAC系统,有 5000 平方度的观测视场, 16 星等的观测深度

The GWAC system features a vast observational field of 5,000 square degrees and achieves a detection depth of up to 16th magnitude

全球合作共建,协同观测,全球共享

Global cooperation for co–construction, synergistic observation and global sharing

广西大学通过全球合作,推动起空间 – 地面全球望远镜网 络建设:

(1)参与全球望远镜网络(LCOGT)建设。LCOGT 是当前时域天文研究中覆盖最广泛、响应最及时的全球 观测网络,由2台2米口径望远镜、多台1米口径望 远镜与多台40厘米望远镜构成,分布在全球多个国家, 可在各类暂现源被探测到之后数秒到数小时内开展后 随测光测谱,利用远程遥控技术,实现观测设备与观测 成果通过网络全球共享。广西大学参与主导 LCOGT 阿 里站1米口径光学望远镜建设项目,填补相应经度处 的空缺,为完善 LCOGT 网络,实现全时区覆盖做出重 要贡献。

(2)负责兴隆观测站2台60厘米快速响应后随望远 镜建设,协同攻关宽视场光学暂现源巡天技术;参与 LHAASO、FAST、中法合作的SVOM卫星等;同时团 队成功研制甚高能粒子穿越辐射探测器,西欧核子中心 (CERN) 床流实验验证其性能指标达到国际领先水平, 该探测器被遴选为中国空间站科学载荷,有望首次实现 1–10TeV 能区粒子能量的直接标定。

3)通过协同观测,结合空间、地面多波段观测数据, 研究极端相对论物理,对暂现源对应体进行研究,揭示 了各类天体暂现源的物理起源、能源机制。 Guangxi University has promoted the construction of a space-ground global telescope network through international cooperation:

1. Participation in the Las Cumbres Observatory Global Telescope Network (LCOGT): LCOGT is the most extensive and responsive global observational network for time-domain astronomical research. It consists of two 2-meter telescopes, multiple 1-meter telescopes, and several 40-centimeter telescopes distributed across various countries worldwide. It can perform rapid follow-up photometry and spectroscopy within seconds to hours after detecting various transient sources. It facilitates global sharing of observational equipment and results via the network utilizing remote control technology. Guangxi University plays a leading role in the construction of the 1-meter optical telescope at the LCOGT Ali Observatory, contributing significantly to the network's coverage across different time zones.

2. Construction of Two 60-centimeter Rapid Response Telescopes at the Xinglong Observatory: the team is responsible for constructing the telescopes, which are crucial for rapid response observations. The team also collaborates on wide-field optical transient source surveys. Additionally, our team participates in projects such as LHAASO, FAST, and the Sino-French collaboration on the SVOM satellite. Moreover, our team has successfully developed a very high-energy particle radiation detector. Its performance has been validated through experiments at the European Organization for Nuclear Research (CERN), confirming its international leadership in performance indicators. This detector has been selected as a scientific payload for the Chinese space station, with the potential to achieve direct calibration of particle energies in the 1–10 TeV energy range.

3. Research in Extreme Relativistic Physics: Through collaborative observations and combining multi–wavelength space and ground–based observational data, our team studies extreme relativistic physics and investigates corresponding bodies of transient sources. This research aims to uncover the physical origins and energy mechanisms of various types of transient celestial sources.

全球望远镜网络(LCOGT)分布图(左), 广西大学在海拔 5600 米的西藏阿里建设的 1 米望远镜的具体位置(右) Left: LCOGT Distribution Map Right: Guangxi University's 1-Meter Telescope Location

Las Cumbres Observatory







国家天文台兴隆观测基地的"七星阵", 其中有2台圆顶为广西大学合作建立 The "Seven-Star Array" at the Xinglong Observatory Base of the National Astronomical Observatory, including two domes jointly established in collaboration with Guangxi University

促进全球合作,面向天体物理领域开展重大科学前沿基础研究

Fostering global collaboration to pursue cutting-edge fundamental research in the field of astrophysics.

空间—地面全球望远镜网络实现了全球覆盖的望远镜网 络,在空间以伽马射线、X射线波段为主,在地面以射电、 光学、甚高能辐射为主,将空间和地面联合,建立了完善 的多波段、多口径、多时区、宽视场的全球协同观测网络, 实现全球共享、互联互通,共同推进人类文明的发展。

The Space–Ground Global Telescope Network has established a comprehensive, multi–wavelength, multi–aperture, multi–time zone, and wide–field global collaborative observation network covering space and ground–based telescopes. It primarily focuses on gamma–ray and X–ray observations in space and radio, optical, and extreme high–energy radiation observations on the ground. By integrating space and ground–based observations, it has achieved global sharing and interconnectivity, contributing to the advancement of human civilization.

空间一地面全球望远镜网络由全球各国、各国际研究组共 建,也是国际上运用最广泛的天文观测网络。其应用不仅 在伽马射线暴、快速射电暴、引力波暴、中微子事件、宇 宙学研究等天文领域获得多项重要的研究进展,还是面向 天体物理重大科学前沿基础研究,是体现命运共同体意识 的具体实践案例。

The Space–Ground Global Telescope Network is a collaborative effort involving various countries and international research groups, making it one of the most widely utilized astronomical observation networks worldwide. Its applications have led to significant research progress in astronomical fields, including gamma–ray bursts, fast radio bursts, gravitational wave events, neutrino events, and cosmology. Furthermore, it serves as a concrete example of practicing the concept of a community with a shared future.



利用自主望远镜和中国其他望远镜, 与美国加州伯克利大学等建立光学暂现源国际联测网络

By utilizing domestic telescopes in China and other Chinese telescopes, collaborative networks have been established with institutions such as the University of California, Berkeley, for optical transient source international observations

全球领先的多语言数据库,助力全球人工智能普惠发展

World-Leading Multi-Lingual Database, Contributing to the Inclusive Development of Global AI



12 countries and regions such as Israel, Saudi Arabia, Vietnam, Argentina, Republic of Korea



多语言数据采集场景 Multilingual Data Collection Scenarios

近年来,海天瑞声践行建设全球领先的多语言数据库, 为全球 AI 企业提供数字化基础设施,推动新一代信息 基础设施建设,共同推进跨国境、跨地域的全球领先 的多语言数据库,取得了良好的社会效益和经济价值。

In recent years, DataOcean AI has been developing world-leading multilingual datasets to provide digital infrastructure for enterprises around the globe. It is dedicated to a new generation of information infrastructure construction, promoting the collaborative development of multi-lingual datasets across countries and regions, achieving social benefits and economic value.
加速建设多语言数据库,助力构建全球 AI 多语言数据库

Accelerating the Construction of Multi–Lingual Datasets in Support of Global AI Multi–Lingual Datasets Development

对于 AI 企业而言, "出海"首要解决产品与当地目标受 众群体的互动问题,即 AI 能否实现"听音识人"、"看 脸识人"、"识文断字"等功能。不同国家 / 地区的人种 在人脸特征、语言表达、行为习惯、图文书写等方面都存 在着差异。首当其冲的便是语言问题——能够清晰而准确 地与不同国家用户进行"交流",是 AI 应用打开海外市 场的第一步。

For AI enterprises, the primary challenge of "globalization" is to establish the interaction between their products and the local target audience. That is, whether AI can achieve goals such as "audio–based person recognition", "facial recognition", and "text recognition and character segmentation". People from different countries or regions have differences in facial features, language expression, behavioral habits, written forms, etc. The most immediate challenge is language. Possessing the ability to communicate clearly and accurately with users from different countries is the first step for AI applications to enter the overseas market.

目前世界上约有 7000 多种语言,使用最高频的语言仅 10 多种,尽管不少智能翻译设备的在线和离线翻译效果已经 达到专业水平,但小语种依然存在语言研究不充分、训练 数据稀缺、应用场景复杂多样等问题,为 AI 语种系统的 构建与研发带来巨大挑战,与语音识别、语音合成等多项 技术的融合上也困难重重。

There are over 7,000 languages worldwide, but only slightly over 10 are used most frequently. Although many intelligent translation devices' online and offline translation capabilities have reached a professional level, there are still problems regarding lesser–known languages, including insufficient language research, lack of training data, complex and diverse application scenarios, etc. These pose significant challenges to the construction and development of Al language systems and the integration with technologies such as speech recognition and synthesis.



专业的多语言数据采集场景 Professional multilingual data collection scenarios

消除语言鸿沟, 助力全球人工智能普惠发展 Fill the Language Gap and Promote the Inclusive Development of Global Al

面对"语种多、小语种研究不足"的行业问题,海天瑞声 全球化的母语发音人资源布局以及全球语言学家团队,支 持 70多个国家 / 地区、190多种语言及方言的数据方案设 计、语音采集、转写、发音词典制作等本地化项目服务。 截至目前,已累计服务 229 个海外客户,其中包括为微软 Azure 云服务智能功能提供多语种数据服务,还为三星智 能产品提供数字基础设施等,除了服务海外知名AI企业外, 海天瑞声多语种服务还涉及到数十个一带一路沿线国家, 语种覆盖多达 44 个,包括克罗地亚语、老挝语、罗马尼 亚语、缅甸语、塞尔维亚语、斯洛伐克语、土耳其语、印 尼语、越南语等,一带一路语种词典能力实现了全覆盖; 同时助力 200 余家中国人工智能企业出海,由海天瑞声支 持的 AI 产品已经遍布全球主要国家和地区。

Faced with the problem of "numerous languages and insufficient research on less commonly taught languages" in the industry, DataOcean AI, in its pursuit of globalization, has established a resource layout of native speakers and a team of global linguists to support localized projects such as data project design, speech collection, transcription, and lexicon production for over 70 countries/regions and more than 190 languages and dialects. Up to

now, DataOcean AI has provided services to 229 overseas clients, including providing services on multilingual data solutions for Microsoft Azure cloud and data infrastructure for Samsung smart products. In addition to serving overseas well-known AI enterprises, DataOcean AI also provides multilingual service to dozens of countries along "the Belt and Road", which covers up to 44 languages, including Croatian, Lao, Romanian, Burmese, Serbian, Slovak, Turkish, Indonesian, Vietnamese, and more, achieving full coverage of "the Belt and Road" languages in terms of lexicon capabilities. Additionally, DataOcean AI has assisted over 200 Chinese AI companies in globalization. Al products supported by DataOcean Al are now deployed in major countries and regions worldwide.



多语言数据库标注场景 - 以阿拉伯语为例

Multilingual Database Annotation Scenarios - An Example for Arabic Language



多语言数据库质检场景 - 以阿拉伯语为例 Multilingual Database QA Scenarios - Arabic as an Example

自主研发国产化技术生产体系,夯实训练数 据建设服务能力

Independent R&D of Domestic Technology Production System to Strengthen Training Data Services Capability

海天瑞声依托 100% 自主研发的国产化技术体系、生产体 系,开发了一体化数据处理平台,涵盖基础研究、平台工 具、训练数据生产三个维度,搭建起人工智能训练数据开 发一站式解决方案。针对不同的任务和应用场景,基于自 有高规格录音棚、全球优质发音人资源建立了多语种、数 千个小时的语音库,打造全球规模领先的具有自主知识产 权、工程化的数据库,在1334个自有版权数据库中,包 含稀缺小语种在内的 100 多种语言,其中稀缺小语种包括 亚美尼亚语、巽他语、普什图语、印地语、吉尔吉斯语、 齐切瓦语、卢旺达语等,让AI企业不再花费精力根据不 同的语言特性单独建模,将大大加速AI应用的开发与迭代, 提升了开发效率、服务质量及数据安全性。

Relying on a 100% self-developed technology system and production system, DataOcean AI developed an integrated data processing platform. The platform covers three dimensions: fundamental research, platform tools, and training data production, providing a one-stop solution for the development of AI training data. To address different tasks and application scenarios, DataOcean AI has established multi-lingual speech datasets with thousands of hours of recordings, taking advantage of its highstandard in-house recording studios and access to high-guality voice resources worldwide, creating a world-leading database with independent intellectual property rights and engineering capabilities. DataOcean AI's 1,334 proprietary copyright datasets cover over 100 languages, including less commonly taught languages such as Armenian, Sundanese, Pashto, Hindi, Kyrgyz, Chichewa, and Kinyarwanda. It eliminates the need for AI companies to invest resources in individually modeling different language characteristics, greatly accelerating the development and iteration of AI applications and enhancing development efficiency, service quality, and data security.



海天瑞声 DOTS 一体化数据处理平台 DataOcean AI DOTS Integrated Data Processing Platform

实现 AI 普惠及技术平权,为全球网络空间 治理贡献中国力量

Achieve Inclusive AI and Technological Equity, Contribute to Fairness and Justice in Global Cyberspace Governance

数据在人工智能中发挥着至关重要的作用,尤其是人工智能大模型的基础设施,关乎人工智能的先进性、准确性、 安全性和平等性。海天瑞声全球多语言数据库是全球人工 智能普惠及技术平权的重要数字化基础设施,对缩小数字 鸿沟、实现共同繁荣具有重要意义。在人工智能时代,海 天瑞声将不断地探索利用数字化能力搭建包容、开放、多 样的网络文化交流平台与机制,将可持续社会价值创新及 ESG 作为公司发展的核心价值,为构建全球网络空间治理 体系,促进公平正义贡献力量。

Data plays a crucial role in AI, especially in the infrastructure of AI large models, which affects the advancement, accuracy, security, and equality of AI. DataOcean AI's global multi–lingual database is an essential digital infrastructure for worldwide inclusive and equitable AI technology dissemination. It holds significant importance in narrowing the digital gap and achieving shared prosperity. In the era of AI, DataOcean AI will continuously explore the use of digital capabilities to build an inclusive, open, and diverse platform and mechanism for cultural exchange. DataOcean AI regards the innovation of sustainable social values as its core value of development and strives to contribute to establishing a global governance system for cyberspace and promoting fairness and justice.

Internet Infrastructure Construction
Accelerating the Building of Global Internet Infrastructure for Greater Connectivity 29

点亮深蓝, 共筑数字化美好未来

Illuminating the Maritime Pathway to a Digital Bright Future



全球通信行业技术专家在 APC 大会现场发布最新研究成果, 共商行业发展新渠道、新方式

Experts from the global communications sector shared their latest research findings at the APC Global Optical Fiber and Cable Conference, discussing new avenues and methods for industry development

作为中国光通信发源地的烽火通信,是中国海洋通信领域唯一一家拥有完全自主知识产权和全产业链的通信设备商, 致力于打通国际信息传输壁垒,建立全球海洋通信航道,打全链条 EPC 总包服务,共建网络空间命运共同体。

As the birthplace of optical communications in China, FiberHome is the country's only maritime communications equipment provider with complete intellectual property rights and a comprehensive industrial chain. The company is committed to removing global data transmission barriers, developing a seamless maritime communications network, and providing end-to-end EPC solutions. FiberHome aims to jointly build a community with a shared future in cyberspace through these efforts.

推进海洋通信网络建设,助力菲律宾群岛打开信息高速通道

Advancing the Maritime Communications Network to Unlock a High-Speed Information Corridor in the Philippine Islands

菲律宾南部群岛采用的卫星和微波的无线传输方式,受当 地天气影响巨大,网络传输成为限制经济发展的重要因素。 2022 年 10 月,伴随着礼炮响起,烽火通信完成了菲律宾 巴拉望海岛的海缆登陆,至此烽火通信通过 16 段路由完 成了菲律宾南部群岛光纤通路的网络成环。两年间,烽火 通信用海缆连接菲律宾岛群,用光通信点亮数字化转型之 路,完成"政府 – 医疗 – 商业 – 家庭"全场景 5G 覆盖。 同时,烽火通信还帮助当地企业推进专线 B2B 建设,助 力数字通信基础设施建设,带动当地数万人就业、数字经 济蓬勃发展,让菲律宾人民畅享安全、高速、便捷的信息 通信网络。 The southern islands of the Philippines have long relied on satellites and microwave technologies for wireless data transmission, which are highly vulnerable to local weather conditions. This vulnerability has been a significant barrier to the region' s economic growth. However, a milestone was reached in October 2022. Accompanied by the salute of ceremonial cannons, FiberHome successfully deployed submarine cables at Palawan Island. This crucial step finalized a fiber-optic network spanning 16 routes throughout the southern Philippine islands. Over two years, FiberHome has linked the Philippine islands with submarine cables, lighting the way for the country's digital transformation through advanced optical communications technology. This has enabled comprehensive 5G coverage across diverse sectors, including government, healthcare, business, and community. In addition, FiberHome has also supported local businesses in developing specialized B2B networks. This has strengthened digital communications infrastructure and generated tens of thousands of job opportunities, spurring the growth of the local digital economy. The people of the Philippines now enjoy a more secure, high-speed, and convenient information and communications network.



烽火通信自有海缆施工船 在菲律宾海域进行浮球登陆施工图 FiberHome deploys its cable-laying vessel for buoy landing operations in the Philippine waters



菲律宾地区海缆登陆庆典,当地客户、 当地居民和烽火通信员工共同欢庆

Local customers, residents, and FiberHome employees come together to celebrate the submarine cable installation in the Philippines



当地施工团队与烽火通信技术团队沟通交流合照 A local construction team is communicating with FiberHome technical staff

深控海洋通信技术价值,加速一带一路沿线国家数字化进程

Tapping the Value of Maritime Communications to Accelerate Digital Progress in BRI Countries

烽火通信承接了马来西亚到印度尼西亚的海缆系统建设, 打通马来西亚对外信息出海口。此条海底光缆降低了跨国 通信系统传输延迟,提高了网络传输的带宽和速率,为东 马来西亚数据中心建设保驾护航。未来,烽火通信将携手 当地企业通过此数据中心实现全产业的数字化升级,并且 联通印度尼西亚、菲律宾和中国香港等区域经济发展中心, 推动一带一路沿线国家和地区数字化沟通和发展。 FiberHome has undertaken the construction work of a submarine cable network stretching from Malaysia to Indonesia, which establishes a crucial data gateway for Malaysia to the outside world. This submarine fiber–optic cable has substantially reduced transmission latency in the international communications system while boosting network bandwidth and speed. These enhancements will play a vital role in the data center construction in East Malaysia. Looking ahead, FiberHome will collaborate with local businesses to digitally upgrade their entire industries via this data center. The company also aims to connect Malaysia with key economic hubs like Indonesia, the Philippines, and Hong Kong (China) to foster digital communications and growth among BRI countries.

共享海洋通信创新实践,携手共建网络空间命运共同体

Sharing Innovative Practices in Maritime Communications to Jointly Build a Community with a Shared Future in Cyberspace

在由亚太光纤光缆产业协会和烽火通信联合主办的 2023 年全球光纤光缆大会上,烽火通信向来自 30 多个国家的 600 多位光通信领域专家共享了在海洋通信领域的创新实 践。烽火通信聚焦长距离、大容量海洋通信技术,发布了 超长跨距海洋网络系统方案,对未来海洋网络演进方向提 出了四点价值主张:超宽、泛在、开放、随需。烽火通信 倡议行业聚焦数字赋能产业转型,促进数字经济与实体经 济深度融合,推动全球海洋通信网络建设,携手构建网络 空间命运共同体。 At the Global Optical Fiber and Cable Conference 2023, co-hosted by the Asian–Pacific Optical Fiber & Cable Industry Association (APC) and FiberHome, the company shared its innovative practices in maritime communications with over 600 optical communications experts from more than 30 countries. FiberHome focused on long–range, high–capacity maritime communications technologies and introduced an ultra–long– haul maritime network system solution. The company proposed four core concepts for the future evolution of maritime networks: ultra–broadband, ubiquitous, open, and on–demand. FiberHome encouraged all to focus on digital industry transformation, advocate for the deep integration of digital and real economies, advance the global maritime communications network, and work jointly to build a community with a shared future in cyberspace.



烽火通信团队在 APC 现场分享研究成果 FiberHome shared their research findings at the conference

构建网络空间命运共同体: SDAN 技术驱动下的 LIGHTSPAN MF-2 部署与普惠影响

Building a Community with a Shared Future in Cyberspace: Deploying LIGHTSPAN MF-2 Driven by SDAN Technology and Its Inclusive Impact





NOKIA SDAN 技术推动构建网络空间命运共同体 NOKIA SDAN for building a community with a shared future in cyberspace

GLOBE 在部署 NOKIA 的 MF-2 平台时,通过 SDAN 技术实现 了数字经济的加速发展和普惠社会的促进,推动在线学习、远 程办公和数字娱乐,为企业创新和竞争提供机遇,缩小数字鸿 沟使偏远地区也享有互联网连接带来的变革与进步。

With the deployment of Nokia's MF–2 platform, GLOBE utilized SDAN technology to accelerate the development of the digital economy and promote inclusive societal progress. This has driven opportunities for online learning, remote work, and digital entertainment, fostering business innovation and competitiveness. It also narrowed the digital divide, enabling remote areas to experience transformation and progress through access to internet connectivity.

34 网络基础设施建设 加快全球网络基础设施建设,促进互联互通

Nokia 的 MF-2 广泛应用于全球,为构建网络空间命运共同体做出重要贡献。

Nokia's MF-2 has been widely deployed globally, making a significant contribution to building a community with a shared future in cyberspace.

菲律宾的 GLOBE 从 2015 年至 2023 年部署了 530 套 MF-2 设备,提供 FTTH 业务,推动菲律宾数字经济的发展。

In the Philippines, GLOBE has deployed 530 sets of MF–2 devices from 2015 to 2023, providing FTTH services and driving the development of the Philippine digital economy.

而 MF-2 的国际合作性不仅局限于菲律宾。在欧洲和北美地区,多家市政运营商也都广泛采用,缩小了非城市区域的数字鸿沟。这表明 Nokia 与全球各方积极合作,共同推动互联网普及,造福人类。

The international collaboration of MF–2 extends beyond the Philippines. In Europe and North America, numerous municipal operators have extensively adopted it, narrowing the digital divide in non–urban areas. This demonstrates Nokia's active cooperation with global stakeholders in advancing internet accessibility for the betterment of humanity. MF-2的部署和采用 SDAN 技术,引领了全球光纤接入网络的创新发展。通过 SDAN 技术,网络切片和多服务共存为各类用户提供高质量网络体验。同时,MULTI-PON模式和小型模块化设计提高了网络架构的灵活性和成本效益,进一步推广了光纤网络。

The deployment of MF–2, coupled with SDAN technology, leads to the innovative development of global fiber–optic access networks. Through SDAN technology, network slicing and the coexistence of multiple services offer users a high–quality network experience. Additionally, the MULTI–PON mode and small modular design enhance network flexibility and cost–effectiveness, further promoting fiber–optic networks.

MF-2 为全球带来更公平、可靠的网络接入,促进数字经 济繁荣,实现网络空间命运共同体的愿景。

MF-2 brings more equitable and reliable network access worldwide, fostering prosperity in the digital economy and realizing the vision of a shared future in cyberspace.



LIGHTSPAN MF-2 新一代万兆全光接入平台 LIGHTSPAN MF-2: The Next Generation Gigabit Full-Fiber Access Platform

高速光纤到户的家庭宽带服务 推动菲律宾数字经济的发展

High-speed fiber-to-the-home broadband services, driving the development of the Philippine digital economy

SDAN 技术驱动下的创新超宽带部署模式

Innovative Broadband Deployment Model Driven by SDAN Technology

本案例的具体实施途径和创新点体现了 MF-2 的高度创新性。 GLOBE 在部署 Nokia 的 MF-2 时 采用了一系列创新的设计和实施 途径。

The specific implementation approach and innovative aspects of this case highlight the high level of innovation of MF–2. GLOBE adopted a series of innovative design and implementation approaches when deploying Nokia's MF–2.

首先,充分利用了 SDAN (软件定 义接入网络)技术,实现了网络切 片和多服务共存,为每种服务提供 了所需的 QoS 并独立管理,减少 了多业务、多技术环境所带来的复 杂性。

Firstly, they fully leveraged SDAN (Software Defined Access Networks) technology, enabling network slicing and the coexistence of multiple services. This provided the necessary Quality of Service (QoS) for each service and allowed independent management, reducing the complexity of a multi-service, multi-technology environment.

其次,采用了 MULTI-PON 模式, 单个端口灵活提供 GPON 和 XGS-PON 服务,实现了更灵活的网络 架构,带来了更高的网络效率和 资源利用率。在实施路径方面, development of fiber networks

通过创新的设计和实施途径,

进一步推动光纤网络的普及和发展 Through innovative design and implementation

approaches, further promote the popularization and

灵活部署于 GLOBE 和全球其他运营商的 LIGHTSPAN MF-2 LIGHTSPAN MF-2 flexibly deployed in GLOBE and other global operators

GLOBE 将 LMF-2 灵活部署在不同位置,包括中心机房、建筑地下室、户外机柜和 数据中心等。这使得他们能够最大程度地利用现有的光纤资源,为不同场景提供高 效的解决方案。通过这些创新的设计和实施途径,GLOBE 成功地将 MF-2 引入其 网络,提供了优质的 FTTH 服务。

Secondly, they utilized the MULTI–PON mode, allowing flexible delivery of GPON and XGS–PON services from a single port. This achieved a more adaptable network architecture, increasing network efficiency and resource utilization.

Regarding the implementation path, GLOBE flexibly deployed MF–2 in various locations, including central offices, building basements, outdoor cabinets, and data centers. This maximized the utilization of existing fiber resources, offering efficient solutions for different scenarios.

Through these innovative design and implementation approaches, GLOBE successfully integrated MF–2 into its network, providing high–quality FTTH services.

基于 SDAN 技术的超宽带网络快速缩小数字鸿沟

Ultra-broadband networks based on SDAN technology rapidly narrow the digital divide

首先, MF-2的部署加速了菲律宾的数字经济发展。通过 提供 FTTH 服务, GLOBE 为家庭和企业提供了快速、可 靠的互联网连接。对于家庭获得了更广泛的在线学习、远 程办公和数字娱乐机会, 促进了数字技术的普及和应用。 对于企业而言,高速宽带连接提供了更多创新和商业机会, 推动了数字经济的增长和竞争力的提升。

Firstly, the deployment of MF–2 has accelerated the development of the digital economy in the Philippines. By providing FTTH services, GLOBE offers households and businesses fast and reliable internet connections. This has enabled families to access a broader range of online learning, remote work, and digital entertainment opportunities, promoting the adoption and application of digital technologies. For businesses, high–speed broadband connections have unlocked more innovation and commercial opportunities, driving the growth and competitiveness of the digital economy.

其次,MF-2的部署对于菲律宾社会的普惠性产生了积极 影响。通过缩小非城市区域的数字鸿沟,GLOBE为偏远 地区的家庭提供了与城市相当的互联网连接。 Secondly, the deployment of MF–2 has had a positive impact on the inclusivity of Philippine society. By narrowing the digital divide in non–urban areas, GLOBE provides households in remote areas with internet connections comparable to those in urban areas.

通过 SDAN 技术驱动下的 MF-2 的部署,提升了人们的 生活质量和工作效率,更为广大居民带来了更公平、更便 捷的数字化服务。此案例不仅体现了技术创新的重要性, 更展现了 Nokia 的 MF-2 在构建网络空间命运共同体中的 积极贡献。

Through the deployment of MF–2 driven by SDAN technology, the quality of life and work efficiency of people has been improved, bringing more equitable and convenient digital services to a wider population. This case not only underscores the importance of technological innovation but also demonstrates the active contribution of Nokia's MF–2 to the construction of a shared future in cyberspace.



GLOBE 可以在全国快速建立领先的超宽带接入网络服务于菲律宾人民

GLOBE can rapidly establish a leading ultra-broadband access network nationwide to serve the Filipino people

中国电信境外数据中心建设: 夯实境外数据中心建设,助力数字经济全球化发展

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China Telecom's Overseas Data Center Construction: Consolidate the Construction of Overseas Data Centers to Assist Digital Economy Globalization

申报机构 Applying Institution

中国电信集团有限公司

China Telecom Group Limited

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation 。

中国香港、中国澳门、德国、新加坡、美国 Hong Kong (China), Macao (China), Germany, Singapore, United States of America



中国电信香港将军澳数据服务中心大楼 China Telecom Hong Kong Tseung Kwan O Data Service Center

中国电信集团有限公司(以下简称中国电信)境外数 据中心建设旨在满足日益增长的云网融合需求和全球 化业务拓展的需求。通过建设境外数据中心,中国电 信将为客户提供更可靠、高效的云计算和数据服务, 进一步促进全球数字经济合作与发展。

The overseas data center construction of China Telecom Group Co., Ltd. (hereinafter China Telecom) aims to meet the growing demand for cloud network integration and global business expansion. China Telecom provides customers with more reliable and efficient cloud computing and data services by building overseas data centers, further promoting international digital economy cooperation and development.

一. 服务全球化战略,积极参与国际基础实 施建设

Serve the globalization strategy and actively participate in the implementation of international infrastructure

随着"一带一路"的深入推进,中国企业走出去、外资企 业引进来,中国与世界的联系越来越紧密,随之而来的信 息化需求旺盛。中国电信积极践行构建人类命运共同体, 在云网融合的发展理念指引下,在境外积极开展云、网、 安全、数据中心等多种要素的布局、升级和融合集成创新, 业务覆盖全球,为客户提供数字化、网络化、智能化、安 全的信息基础设施。

With the deepening of the "Belt and Road," China and the world are more and more closely connected, driving the consequent solid demand for information technology. Under the guidance of the development concept of cloud and network integration, China Telecom actively carries out the layout, upgrading, integration and innovation of cloud, network, security, data center and other elements overseas, covering the whole world, and providing customers with digital, networked, intelligent and secure information infrastructure.

二.加速重点布局,务实推进云网融合建设

Accelerate the layout of key areas, and pragmatically promote the integration of cloud and networks

中国电信国际有限公司(以下称电信国际)最大的自建数 据中心 – 香港将军澳数据中心,与 2022 年 11 月 25 日举 行动土仪式。电信国际香港将军澳数据中心占地面积约 2 万平方米,规划 2 栋大楼,约 7800 个机柜,位于香港将 军澳工业邨。

The largest self built data center of China Telecom Global(hereinafter referred to as CTG), the Hong Kong Tseung Kwan O Data Center, was inaugurated on November 25, 2022. The CTG Hong Kong Tseung Kwan O Data Center covers an area of approximately 20000 square meters, with approximately 7800 cabinets, located in the Tseung Kwan O Industrial Estate in Hong Kong.



中国电信自 2012 年开始启动全球化战略,在境外拥有 26 个自有数据中心,覆盖中国香港、中国澳门、新加坡、德 国、日本等多个国家或地区,同时有超过 300 多个合作机 房,与全球 80 多家运营商开展 IDC 合作,并与全球超过 100 家领先的互联网运营商建立了互联关系。凭借在网络、 云计算、基础设施方面的绝对优势,中国电信为海外拓展 的中国企业提供了稳定的网络支撑,也为自身拓展了海外 市场。

China Telecom has launched a globalization strategy since 2012, with 26 self–owned data centers overseas, covering multiple countries or regions such as Hong Kong (China), Macao (China), Macao China, Singapore, Germany, and Japan. At the same time, it has more than 300 cooperative computer rooms, and has established IDC cooperation with more than 80 global operators. It has also established interconnection relationships with over 100 leading internet operators worldwide. With its absolute advantages in network, cloud computing, and infrastructure, China Telecom has provided stable network support for Chinese enterprises expanding overseas and also expanded its own overseas markets.



2022 年 11 月将军澳数据中心动土仪式现场 The groundbreaking ceremony for the Tseung Kwan O data center in November 2022

三. 充分融入高效节能、优势互补等要素, 坚持快速可持续发展

Fully integrate elements such as efficient energy conservation and complementary advantages, and adhere to rapid and sustainable development

在境外数据中心设备选型和建筑设计上,中国电信结合国际标准和属地要求,采用了先进的技术和理念,实现了数据中心的高效、安全和可扩展性。在数据中心的机架、网络设备等方面使用了模块化设计,根据需求灵活扩容,满足不同客户对于数据处理和存储的需求,同时减少了能源消耗和维护成本。在数据中心IT设备的选购和部署上更注重节能减排和环境保护,推动数据中心向绿色发展。

In the overseas data center equipment selection and architectural design, China Telecom combines international standards and territorial requirements. It utilizes advanced technology and concepts to achieve the data center's efficiency, security, and scalability. For the rack and network equipment, the modular design is used to flexibly expand capacity according to requirements to meet different customers' data processing and storage requirements while reducing energy consumption and maintenance costs. China Telecom pays more attention to energy saving, emission reduction and environmental protection in purchasing and deploying IT equipment and promotes the green development of data centers.

在实施途径上采取合作共建、多方协同的方式来推进数据 中心建设。中国电信通过与当地政府和企业的密切合作, 构建了开放、互联的数据中心生态体系。通过与区域的电 信运营商合作,建设了多个互联互通的数据中心,共同推 动数字经济的发展。例如,2019年11月,中国电信国际 有限公司和 Global Switch 等知名企业合作启动法兰克福北 翼数据中心的服务。类似的合作案例,形成了协同发展、 优势互补的高效的发展模式。

In the way of implementation, joint construction and multi-party coordination were adopted to promote the construction of data centers. Through close cooperation with local governments and enterprises, China Telecom has built an open and connected data center ecosystem. Through cooperation with regional telecom operators, a number of interconnected data centers have been built to jointly promote the development of the digital economy. For example, in November 2019, well-known companies such as China Telecom International Limited and Global Switch cooperated to launch the services of the Frankford North Wing data center. Similar cooperation cases have formed an efficient development model of coordinated development and complementary advantages.



2019 年 11 月中国电信启动法兰克福北翼数据中心服务 In November 2019, China Telecom launched the Frankford North Wing data center service

四. 夯实数字产业基础,促进高质量发展和企业转型

Consolidate the digital industry's foundation, promoting high-quality development and enterprise transformation

中国电信不断加大对境外数据中心的投入,推出了一系列针对不同行业、不同地区的全球化解决方案,在全球范围内布局数据中心,涉及欧洲、中东、亚太等多个热门地区。这些数据中心已成为机构、企业和个人数字化转型的基础设施之一,数据中心的收入和客户数量都不断增加,不仅创造了巨大的经济效益,也为当地产业的发展提供了积极的帮助。

China Telecom has continuously increased its investment in overseas data centers, launched a series of global solutions for different industries and regions, and laid out data centers globally, involving Europe, the Middle East, Asia Pacific and other popular areas. These data centers have become one of the infrastructures for the digital transformation of institutions, enterprises, and individuals, and the revenue and number of customers of data centers are increasing, creating substantial economic benefits and providing positive help for the development of local industries.



新加坡大成数据中心, 亚太首屈一指的全球连接枢纽

Singapore Dacheng Data Center, Asia Pacific's leading global connectivity hub



中国电信国际有限公司德国法兰克福数据中心是按照国际标准 Tier II 设计的运营商中立IDC,距离法兰克福市区和金融中心 区5.5 公里,并 1000 m² 托管空间、2000 W/m² 电源密度, 2MW IT电源接入,目标 PUE 小于1.2, 具备ISO 9001、ISO 14001、ISO 27001和ISO 50001国际认证。

大棲设有新前台和大厅,数据中心内部设置会议室、办公室和储存室。现有2个支持不同运营商的 Meet-Me-Room,实现 双管道和双路径互为备份。2022年已上线营运。

安全与运维服务,您的安全管家 中国电信国际德国法兰克福数据中心,提供高品质运维服 务和7x24x365安全监控保障。安全监控记录保留31天可供 调取查看,机房进出权限亦可按需配备。

一站式解决方案

中国电信国际提供一站式解决方案、电信咨询和外包服务, 结合广泛的高性能、弹性和安全数据组合,打造具有云连 接服务、坚实可靠的数据中心,满足您的全球业务需求。

德国法兰克福数据中心: 高标准, 一站式解决方案 Datacenter in Frankfurt, Germany: High standard, one-stop solution

高标准技术规格	
特点	内容
冷却系统	基于冷通道封闭和环形供水的节能设计
电力供应系统	持续低压柴油机及电力监控系统
光纤引入	专用管道·光纤围绕园区
数据厅规格	防火安全配置齐全



法兰克福数据中心

- · 1000平米新技术空间
- 2,000W/平米电源密度
- 2MW IT 电源
- ・ Tier III 标准设计
- 会议室, BCP 业务室, 办公室和储存室
- 2个Meet-Me-Room
- 年度目标PUE小于1.2











弥合数字鸿沟, 共筑包容性未来

Bridging the Digital Divide, Powering an Inclusive Future for All



申报机构 Applying Institution

思科(中国)有限公司

Cisco Systems,Inc.

cisco

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation /

印度、尼日利亚、刚果(布)、巴布亚新几内亚等 190个国家和地区

190 countries and regions such as India, Nigeria, Congo (Brazzaville), Papua New Guinea Ntombozuko Luning (Instructor of Learnership,南非)通过思科赞助的 Learnership 项目,利用思科网院的课 程,引导来自弱势背景、缺乏投资 自身或教育资源的学生,实现经济 赋权和自力更生

Ntombozuko Luningo (Instructor of Learnership, South Africa) guides students, coming from disadvantaged backgrounds with few resources to invest in themselves or their education, toward economic empowerment and self-reliance with the Cisco-sponsored Learnership program using the Cisco Networking Academy curriculum



在竞争日益激烈、互联互通、科技驱动 的时代,全球数字化转型进程持续深化, 数字化教育愈加关键;但也伴生出数字鸿 沟。作为践行企业社会责任的旗舰项目, 思科网院项目旨在弥合鸿沟,利用思科独 特的技术优势与创新经验,为全球各年龄 段受众提供互融适用的数字化教育机会, 赋能弱势和被边缘化人群实现公平竞争, 为人类构建更包容的未来。

In an increasingly competitive, interconnected, and technology-driven world, where the global process of digital transformation continues to deepen, a digitally informed education has become more crucial than ever before. However, it has also given rise to a digital divide. Cisco Networking Academy Program, as a flagship initiative of Cisco's social responsibility, aims to bridge the divide and provide opportunities for digitally informed education for learners of all ages in the way they learn and connect today through leveraging Cisco's unique strengths in technology and experience and seeks to empower the underserved and underrepresented to level the playing field as well create an inclusive future for all.

打造"无边界学习空间",成就职业梦想

Building classroom without boundaries, landing dream job

思科网院项目始于 1997 年,是世界运行时间最长的"IT 技能 到工作"的教育项目之一;为全球受众无偿提供由思科自主开 发的以"学习科学"理论体系为基础、行业专业知识为核心支 撑的培养 IT 技能与素养的在线课程。项目持续投入、创新,提 升课程质量、优化学习平台性能、关注学习者体验;通过独创 的与政府、学术机构和非营利组织合作的生态系统在世界范围 内运行;或直面大众提供课程。2022 年 10 月,庆祝网院成立 25 周年之际,思科宣布新目标:未来十年,网院将为 2500 万 学习者提供数字和网络安全技能培训。

Established in 1997, Cisco Networking Academy, one of the world's longestrunning IT skills-to-jobs education programs, delivers some of the most indemand digital skills with a high-quality online curriculum backed by learning science and Cisco industry expertise for learners everywhere for free. Cisco continues to innovate, invest in, and evolve learning technologies for greater opportunity to scale and personalize learning. The global program operates through an unmatched ecosystem of partnerships, including governments, academic institutions, and nonprofits, as well as direct delivery of courses to learners. In October 2022, the Cisco Networking Academy program celebrated its silver anniversary with a new goal to provide digital and cybersecurity skills training to 25 million learners over the next ten years through the Cisco Networking Academy program. 项目与全球 190 个国家的 11,800 所教育机构(包括高中、 职业学院、大学和非营利机构)和 29,300 名教师携手合作, 为教育工作者免费提供:多达 27 种语言的一流在线课程、 思科 Webex 会议系统、Cisco Packet Tracer、专业发展研 讨会和教学资源;为学习者提供行业认可的技能和认证。 自 1997 年以来,项目累计培养了 1750 万名学员,95% 的学员表示思科网院帮助他们获得了工作或教育机会。 institutions (including high schools, vocational colleges, universities, and non-profits) and 29,300 instructors in 190 countries across the globe to equip educators with free, best-in-class online curriculum in up to 27 languages, Webex for Educators, Cisco Packet Tracer, professional development seminar and teaching resources and offer learners with industry-recognized skills and certifications. Since 1997, the program has trained 17.5 million learners, with 95% of students saying that Networking Academy helped them obtain a job or educational opportunity.

190.0

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Cisco Networking Academy program partners with 11,800 education



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Agnes from Kenya built a cybersecurity career from scratch

惠及、赋能更多学习者,推进教育公平

Reaching and empowering more learners, advancing education equity

尽管教育领域面临诸多挑战和困境,但对数字技能课程的 需求持续高涨。2021年,思科网院推出了更符合大众网 络学习及媒介接触习惯的 Skills For All 免费、移动优先学 习平台,以继续扩大网院项目惠及、赋能更多学习者,进 一步推动教育公平化进程。无论学习者仅是浅尝科技领域 的奇妙,还是寻求新技能培养,亦或准备开启全新职涯, Skills for All 都是学习者公平获取顶级实用在线课程的起 点。

2022 年,优化、升级后的 Skills For All 安全技能学习内容 与路径与行业认可的全新网络安全认证保持一致,以示学 习者为从事入门级网络安全工作准备就绪。此外,网院"人 才桥"项目通过供需信息共享,将学习者与全球逾千雇主 有效连接,助力其获得就业机会,打造更完善的人才培养 生态系统。



哥伦比亚的 Jorge, 从路边小吃摊贩到 IT 分析师 Jorge of Colombia from street food vendor to IT analyst



思科网院 Skills For All 免费、移动优先学习平台 Skills for All, a free, mobile-first learning platform

Despite challenges and disruptions in the education sector, Cisco has continued to see steady growth in demand for our digital skills programs. Cisco continues to expand the Cisco Networking Academy program to reach more people how they learn and connect today.

In 2021, the Cisco Networking Academy program launched Skills for All, a free, mobile–first learning platform, further evolving equitable access to education. Whether you're curious about the tech field, seeking to develop new skills, or ready to embark on a new career path, Skills for All is your place to get started with equitable access to a top–notch, practical online curriculum. In 2022, the Cisco Networking Academy program made a deeper investment in our Skills for All Cybersecurity Learning Pathway, aligning with a new industry–recognized cybersecurity certification for learners to signal their readiness for entry–level cybersecurity roles, such as cybersecurity technician and junior cybersecurity analyst.

Further supporting learners with employment opportunities, Networking Academy's Talent Bridge program offers learners a career portal, career resources, an alumni network, and the Talent Bridge Matching Engine to connect learners to over 1000 employment partners.

鼓励女性获得数字技能,助力逐梦科技领域

Connecting Girls with Digital Skills, Paving the Path to Success in the Tech Field

项目关注被科技领域忽视和边缘化的群体,如女性、残障人 士及农村或欠发达地区居民。通过提供教育和就业机会,增 强其自适应力,助力其在科技领域中获得平等发展的机会。

Across our areas of work, the Cisco Networking Academy program is building resilience by bringing education and career connections to people who have historically been underserved and underrepresented in technology fields, including women, people with disabilities, and rural or underdeveloped areas populations worldwide.

研究表明, 女孩, 尤其是发展中国家的女孩, 比男孩更难 获得 STEM 教育机会。思科网院携手旨在解决 STEM 领 域性别差距的 Women Rock-IT 项目, 让女孩接触、了解 创业, 学习 IT 领域以及其他科技领域的女性榜样, 以点 燃女孩杨帆 IT 领域的激情。2022年, International Girls in ICT Day 通过全球在线直播,聚焦电竞, 分享玩家如何将 电竞技能转化为科技领域职业发展的动力与经验, 以帮助 女孩逐梦科技领域。自 2014年该项目启动以来, Women Rock-IT 已吸引了 200万名参与者, 其中近 87万人随后 报名学习了思科网院课程。



思科网院 Women Rock-IT 项目 The Women Rock-IT program



思科网院给予 Kutlwano 改变人生的第二次机会 Cisco Networking Academy gave Kutlwano the second chance to turn her life around

Research shows that girls, particularly in developing nations, are less likely than boys to have access to STEM education opportunities. The Women Rock–IT program, aiming to address the gender gap in STEM–related subjects, which works in tandem with Cisco Networking Academy, exposes girls to female role models in IT, entrepreneurship, and many other technology fields to ignite their passion to forge successful careers in IT. The main event of International Girls in ICT Day in 2022 was broadcast online worldwide, focusing on esports and gaming. It aimed to showcase how players can transform their skills into careers in the technology industry, inspiring girls to pursue opportunities in the IT field. Since its launch in 2014, Women Rock–IT has engaged 2 million participants, of which nearly 870,000 subsequently enrolled in Networking Academy courses.

2023年,世界持续复苏,全球脉动生生不息。思科、思 科网院将竭尽所能为大家建设一个更美好、公平和包容的 未来!

In 2023, as the world continued to open back up, we could once again experience the power of human connections. Cisco and the Cisco Networking Academy program will continue doing all we can to build a more equitable and inclusive future for everyone.

"海外中国旅游文化周"全球联动活动

China Tourism and Culture Week Overseas

2022年 中国旅游文化周 2022 CHINA TOURISM AND CULTURE WEEK



2022 年 "海外中国旅游文化周"全球联动活动海报 Post for 2022 China Tourism and Culture Week Overseas Global Event

申报机构 Applying Institution

文化和旅游部国际交流与合作局

Bureau of International Exchanges and Cooperation, Ministry of Culture and Tourism, P. R. China

世界中国文化中心 CHINA CULTURAL CENTER



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

巴基斯坦、法国、塞尔维亚、贝宁、德国等 40 个国家和地区 40 countries and regions such as Pakistan, France, Serbia, Bennin, Germany

"海外中国旅游文化周"全球联动活动创办于 2016 年, 由原"中国文化周"发展而来,是由文化和旅游部统一部 署、各海外中国文化中心和旅游办事处(下称"文化中心 和旅游办")每年年中联动举办的重要活动。

China Tourism and Culture Week global event, founded in 2016 and developed from the former China Cultural Week, is an important event directed by the Ministry of Culture and Tourism and jointly organized by overseas China Cultural Centers and China National Tourist Offices (hereinafter referred to as Culture Centers and Tourist Offices) in the middle of each year.

2022"海外中国旅游文化周"活动介绍

2022 China Tourism and Culture Week Introduction

"海外中国旅游文化周"围绕传播中华文化、推广中国旅 游这一主线,每年围绕特定主题,精心设计活动形式和内 容,面向海外民众密集推出高水平活动。2022年9月, 在文化和旅游部统一部署下,56家文化中心和旅游办在 40个国家联动举办"海外中国旅游文化周"活动,充分 发挥文化和旅游的柔性力量,围绕"非遗减贫"、"乡村 振兴"、"城市建设"、"黄河文化"、"丝路文旅"五 大主题,阐释新发展理念、全球发展倡议、人类命运共同 体理念,展示中华优秀传统文化保护传承的丰硕成果,讲 述文化和旅游助力脱贫攻坚、乡村振兴的精彩故事,展现 中国共产党领导中国人民取得的伟大成就。

China Tourism and Culture Week focuses on spreading Chinese culture and promoting Chinese tourism. Every year, it focuses on a specific theme, elaborately designs the form and content of activities, and intensively launches high-level activities for people overseas. In September 2022, under the unified deployment of the Ministry of Culture and Tourism, 56 Culture Centers and Tourist Offices organized China Tourism and Culture Week activities in 40 countries, giving full play to the flexible power of culture and tourism. The activities center on five thematic parts: intangible cultural heritage and poverty alleviation, revitalization of rural China, urban construction, Yellow River culture, and tourism and culture along the Silk Road. They help to elaborate the New Development Philosophy, Global Development Initiative, and the concept of a community of shared future for all humankind, demonstrating the fruitful achievements of the protection and inheritance of excellent traditional Chinese culture, telling wonderful stories of culture and tourism in helping poverty alleviation and rural revitalization, and showcasing the outstanding achievements made by the Chinese people under the leadership of the Communist Party of China.



活动启动仪式 Event Launching Ceremony

2022 "海外中国旅游文化周" 活动创新亮点 2022 China Tourism and Culture Week Overseas: Innovations and Highlights

2022 "海外中国旅游文化周"活动主动应对互联网、新媒体传播迅猛发展的新形势,紧跟国际传播领域移动化、 社交化、可视化的趋势,精心策划制作文化和旅游主题相 关的短视频,并上线发布中国旅游课程,全面投入脸书 (Facebook)、推特(Twitter)、优兔(YouTube)、抖 音国际版(TikTok)、影格(Instagram)、连我(Line) 等为海外受众特别是Z世代群体广泛接受的全球性或地区 性新媒体平台,借助新媒体赋能,通过线上线下相结合的 方式开展工作,构建全球传播格局,受到全球民众尤其是 年轻一代的广泛好评,在活动期间获得1亿次线上总浏览 量,成为加强国际传播力的有力抓手。 The 2022 China Tourism and Culture Week Overseas global event actively responds to the recent and rapid development of the Internet and new media communication and closely follows the trend of mobilization, socialization, and visualization in international communication, meticulously designing and producing short videos related to the themes of culture and tourism. China tourism courses are released online and posted on Facebook, Twitter, YouTube, TikTok, Instagram, Line, and other global or regional new media platforms that are widely accepted by overseas audiences, especially by Generation Z. Empowered by new media and through the combination of online and offline approaches, the event has helped to build a global communication pattern and was widely praised by the worldwide public, especially the young generation, receiving 100 million online views during the event. It has become a powerful tool for strengthening international communication power.

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河内中国文化中心-Trung tâm văn hóa Trung Quốc tại Hà Nội 发布者: Van Phat Tran **②** · 2022年9月9日 · **③**

Hoạt động trực tuyến Tuần Văn hóa Du lịch Trung Quốc 2022 (từ ngày 6 đến 12 tháng 9) đã được khởi động tại Trung tâm Văn hóa Trung Quốc Hà Nội! Mởi các bạn đón xem nội dung phong phú mỗi ngày! Ban có thể chia sẻ, bình luân và thích các bài viết của chúng tôi, cũng như hoan nghênh các bạn cùng giao lưu và để lại tin nhẫn. Bạn có thể cho chúng tôi biết số lần bạn đã tham gia chia sẻ bài đăng, nhận xét và lượt thích bằng cách để lại tin nhắn trước ngày 13 tháng 9. Những cư dân... **R**T



河内中国文化中心发布的 2022 "海外中国旅游文化周" 线上活动参与入口

Hanoi Participation Portal for Overseas China Tourism and Culture Week 2022 released by the China Cultural Center in Hanoi

2022"海外中国旅游文化周"活动 社会影响

2022 China Tourism and Culture Week Overseas: Social Impacts

"海外中国旅游文化周"以生动的故事和实践 引发了全球受众的积极关注和广泛认同。仰光 中国文化中心举办的"美丽中国"绘画比赛吸 引了众多当地民众的关注,仅此一项活动在仰 光中国文化中心脸书账号的浏览量就达到近25 万人次。

China Tourism and Culture Week has attracted active attention and wide recognition from the global audience through vivid stories and practices. The Beautiful China painting competition organized by the China Cultural Center in Yangon drew the attention of many local people, and the Facebook account of the Yangon Chinese Cultural Center for this activity alone received nearly 250,000 views. 老挝中国文化中心举办的专场直播活动向当地 民众展现了当代中国的发展成就,引发热潮, 互动数据在老挝堪称"顶流"。

The special live broadcasting organized by the China Cultural Center in Laos showcased the development achievements of contemporary China to the local people, which triggered a frenzy, and the interactive data was "top stream" in Laos.

希腊、蒙古、英国等国各级政府、文化和旅游 组织、各界友人、学者纷纷参与各文化中心和 旅游办举办的旅游文化周主题活动。

Governments at all levels, cultural and tourism organizations, friendly personnel, and scholars from all walks of life from Greece, Mongolia, and the United Kingdom participated in the themed activities organized by the culture centers and tourism offices.

白俄罗斯前文化部长斯维特洛夫表示, "中国 文化、中国智慧和共建'一带一路'倡议是中 国对世界的巨大贡献,使各国人民更深刻地认 识到推动构建人类命运共同体的重大意义。"

Boris Svetlov, former Minister of Culture of Belarus, said, "Chinese culture, Chinese wisdom, and the initiative to jointly build The Belt and Road are China's great contributions to the world, making people of all countries more deeply aware of the great significance of promoting the building of a community with a shared future for all humankind."



参加黄河主题活动的丹麦嘉宾 在哥本哈根中国文化中心欣赏西北风味美食制作 Danish guests attending the Yellow River-themed event enjoying the preparation of Northwest-style food at the Chinese Cultural Center in Copenhagen

构建中华古籍的数字网络家园 ——"中华古籍资源库"建设与服务实践案例

Building a Digital Network of Chinese Ancient Books – Chinese Ancient Books Resources Database Construction and Services

申报机构 Applying Institution

课、总量约10万部(件)。

R. FREIMINGOCKONESSAM

国家图书馆(国家古籍保护中心)

中华古籍资源库

National Library of China (China National Center for Preservation & Conservation of Ancient Books)

合制剂、目的在这次会发展和风险和加速的专用用具有器、甲基、数型文化、体积化化、内部文化、成为全体、水力水、水油、中用、全用外等。以及2019年10月1日第日

你我无意止他也必须可有我全义来来。"沈州师师拉家和苏库拉家,甚不拉家和希望拉家,算"我这些话"、"中学导相同"外亲我了苏子库说的实际一起来。沈

中国国家图书馆·中国国家数字图书馆 NATIONAL LIBRARY OF CHINA NATIONAL DIGITAL LIBRARY OF CHINA

〈案例涉及的国家和地区 、Countries and Regions Covered or Involved in the Implementation

中国、英国、美国、法国、日本 China, United Kingdom, United States of America, France, Japan 中华古籍资源库页面 Chinese Ancient Books Resources Database

古籍是传承中华文明的重要载体。国家图书馆于 2016 年正式发布"中华古籍资源库",建立了中华古籍的网络数字家园,让全世界感受到东方文化恒久弥新的魅力,在全球范围,打破时空限制,实现古籍资源的真正共享。

Ancient books are essential carriers of Chinese civilization. In 2016, the National Library of China officially released the Chinese Ancient Books Resources Database, establishing a digital network of Chinese ancient books, letting the world feel the enduring charm of oriental culture, breaking the restrictions of time and space, and realizing the sharing of ancient books resources on a global scale.

全面展示中华珍贵典籍, 实现古籍跨时空传播

Comprehensively display precious Chinese classics, realizing the dissemination of ancient books across time and space

"中华古籍资源库"资源总量超过10.3万部/件, 几乎涵盖了中华文明在流传过程中产生的各种珍贵文 献类型。

The total number of database resources exceeds 103,000 volumes/ items, covering almost all kinds of precious documents in the Chinese civilization.

通过国际数字化合作, "中华古籍资源库"走向世界, 发 布了美国哈佛大学哈佛燕京图书馆、日本东京大学东洋文 化研究所、法国国家图书馆等海外收藏机构的古籍资源 176 万拍,实现了全球中华古籍集中展示和数字化共享。法国 国家图书馆捐赠法藏敦煌遗书高清影像和"日本永青文库 捐赠汉籍"的发布,实现了捐赠者以中华古籍服务全球读 者的捐赠意愿;"中华古籍善本联合书目"数据库有助于国 际学者了解北美大学收藏中华古籍的情况。中华珍贵典籍 的国际交流合作,让全球的互联网用户共同分享, 促进网 络的文化多样性,实现了中华珍贵典籍的跨时空传播。

Through international digital cooperation, the Chinese Ancient Books Resources Database has gone abroad; it released 1.76 million shots of ancient book resources from overseas collection institutions such as the Harvard-Yenching Library, the Institute of Oriental Culture of the University of Tokyo, and the National Library of France, realizing the centralized display and digital sharing of Chinese ancient books around the world. With the release of high-definition images of the Dunhuang Documents donated by the National Library of France and the Donated Chinese Books by the Eisei Bunko Museum of Japan, the donors' willingness has been realized to serve readers worldwide. The International Union Catalogue of Chinese Rare Books database helps international scholars understand the collection of ancient Chinese books in North American universities. The international exchange and cooperation of Chinese precious ancient books allows Internet users around the world to share information and ideas, promotes the cultural diversity of the network, and realizes the dissemination of Chinese precious ancient books across time and space.



有效解决古籍藏用矛盾,改变学术研究生态

Effectively solve the contradiction between the collection and use of ancient books, change the ecology of academic research

古籍是中华民族智慧和文明成果的结晶,对古籍进行保护、 研究和利用,是传承中华文脉和传统文化的重要基础。通 过全彩影像数字化和缩微胶卷转化影像方式,"中华古籍 资源库"有效解决了古籍藏与用的矛盾,得到了业界学者 的普遍好评。多位国际著名学者表示,"中华古籍资源库" 通过网络实现古籍资源的便捷访问,读者远程阅览古籍原 文影像,节省了大量的时间、体力、精力、财力,改变了 古籍整理研究的学术生态,是一个重要的转折。同时认为, 该库所发布的古籍资源,很多是之前未曾公开过的文献, 超越了全球所有的古籍资源的数字化。近期,"国家珍贵 古籍名录知识库"、"永乐大典高清影像数据库"的发布, 更进一步提升了资源库的知识化服务水平。

Ancient books are the fruit of the wisdom and civilization achievements of the Chinese nation. The protection, research, and utilization of ancient books is an essential foundation for inheriting the Chinese context and traditional culture. Through digitalizing full–color images and transforming microfilm images, the Chinese Ancient Books Resources Database effectively solves the contradiction between the collection and use of ancient books, which has been widely praised by scholars in the community. Several internationally renowned scholars commented that the Chinese Ancient Books Resources Database provides convenient access to ancient book resources through the network and ensures readers can remotely view the original images of ancient books, saving a lot of time, strength, energy, and financial resources, and changing the academic ecology of ancient book collation and research, which is a significant turning point. Also, many of the ancient book resources released by the database are previously unpublished literature, surpassing the digitization of all ancient book resources worldwide. Recently, the release of the National Catalogue of Rare Ancient Books Knowledge Base and The Yongle DaDian High–Definitiont6 Image Database has further improved the knowledge services in this area.



发挥引领作用,带动各地联合发布古籍资源

Play a leading role in promoting the joint release of ancient book resources

国家图书馆全面提升"中华古籍资源库"访问速度,实现 免登录阅览,极大满足了社会公众对古籍资源的利用需求, 读者访问量呈几何级数上涨。

The National Library of China has comprehensively improved access to the Chinese Ancient Books Resources Database and realized login–free reading, which greatly meets the public's demand for using ancient book resources. The number of readers' visits has increased exponentially. 在"中华古籍资源库"的带动下,全国 39 家古籍收藏单 位先后 8 次参加国家古籍保护中心组织的古籍数字资源联 合发布,在线开放共享宋元善本、碑帖拓本、佛教文献、 明清古籍、民族文字古籍,以及大量地方志、家谱等贴近 各地社会文化生活需求的特色古籍资源,累计超过 2.8 万 部(件)。参加联合发布的单位覆盖面广,不仅有省级、 市和区县级公共图书馆,还有博物馆、高等院校、科研机 构等,开放共享的古籍资源皆为各机构所藏特色古籍资源。 截至目前,中国累计发布古籍及特藏数字资源超过 13 万 部(件)。

56 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

Driven by the Chinese Ancient Books Resources Database, 39 ancient books collection institutions across the country have participated in the joint release of ancient books digital resources organized by the China National Center for Preservation & Conservation of Ancient Books eight times and shared online a total of more than 28,000 volumes/items, such as Song and Yuan Dynasty rare books, rubbings, Buddhist literature, Ming and Qing Dynasty ancient books ancient books in ethnic minorities' scripts, a large number of chronicles, genealogies, and other characteristic ancient book resources. The institutions participating in the joint release cover a wide range of provincial, municipal, district, and county public libraries, museums, colleges and universities, scientific research institutions, etc. Up to now, more than 130,000 digital resources of ancient books and special collections have been released.

资源开放共享,助力中华传统文化研究

Openness and sharing of resources contribute to traditional Chinese culture research

通过新闻报道数量和相关评论来看,"中华古籍资源库" 的开放共享使很多专家、学者使用图书馆资源和服务方式 有了根本性改变,受到业界和读者广泛关注与好评。有专 家表示,"中华古籍资源库"的发布,有效缓解了古籍"藏" 和"用"之间的矛盾,平衡了古籍的文物性与文献性;有 读者表示,其在博士论文写作中,使用的 1/3 以上史料都源 自国家图书馆,其中有大量馆藏未刊的刻本、抄本,藉中 华古籍资源库得以搜集史料,真可谓是嘉惠学林。

According to the number of news reports and related comments, the open sharing of the Chinese Ancient Books Resources Database has fundamentally changed how many experts and scholars use library resources and services, which has attracted the attention of the community and readers and has been appraised by them. Some experts said that the release of the Chinese Ancient Books Resources Database has effectively alleviated the contradiction between the collection and use of ancient books and balances the character of ancient books as relics or literature, while some readers mentioned that more than 1/3 of the historical materials used in his doctoral dissertation came from the National Library of China, which has a large number of unpublished block–printed editions and transcripts that can be obtained by searching the database. Therefore, the Chinese Ancient Books Resources Database is valuable and beneficial to the public.



全国联合发布古籍数字资源 Joint Release of Digital Resources of Ancient Books



古籍全文影像页面 Image page of ancient books(full text)

"感受中国新时代"主题征文、摄影和短视频大奖赛

"Understanding China's New Era" Themed Essay, Photography and Short Video Contest



中国、美国、俄罗斯、英国等 133 个国家 / 地区 133 countries and regions such as China, United States of America, Russia, United Kingdom "感受中国新时代"主题征文、 摄影和短视频大奖赛颁奖活动 Award Ceremony of "Understanding China's New Era' Themed Essay, Photography and Short Video Contest

2022年3—11月,中共中央对外联络部《当 代世界》杂志社与中国新华新闻电视网、 中国路桥工程有限责任公司组成组委会, 联合主办"感受中国新时代"主题征文、 摄影和短视频大奖赛,国家留学基金管理 委员会秘书处协办。

From March to November 2022, the "Understanding China's New Era" Themed Essay, Photography, and Short Video Contest was jointly organized by Contemporary World Magazine under the International Department of the CPC Central Committee, China Xinhua News Network Corporation, and the China Road and Bridge Corporation, with support from the Secretariat of the China Scholarship Council.

58 网上文化交流 打造网上文化交流共享平台, 促进交流互鉴



"感受中国新时代"主题征文、摄影和短视频大奖赛 "Understanding China's New Era" Themed Essay, Photography and Short Video Contest

2022 年 11 月 22 日,由中共中央对外联络部所属 《当代世界》杂志社牵头举办的 "感受中国新时代"主题征文、摄影和短视频大奖赛 颁奖活动以线上线下相结合方式举行

Hosted by Contemporary World Magazine under the International Department of the CPC Central Committee, the Award Ceremony of "Understanding China's New Era" Themed Essay, Photography, and Short Video Contest was held online and in-person on Nov. 22, 2022

字里行间中国爱 光影交错中国情

Telling China's Stories Through Essays, Photos and Videos by International Students

本次活动旨在以"感受中国新时代"为主题,反映来华留 学生、留华毕业生对近十年来中国各方面情况的看法认 识,以亲身体验和切身感受讲述他们眼中的中国新时代, 展示可信、可爱、可敬的中国形象。本次大奖赛共收到全 国 196 所高校、来自 133 个国家来华留学生的 3688 件参 赛作品,作品内容涉及中国的社会治理、经济发展、科技 成果、人文交往等多个领域。留学生们以文章、摄影、短 视频等形式,生动讲述了自己在中国的难忘经历、精彩瞬 间和真实感悟。 perspectives and insights of international students and graduates who have studied in China over the past decade. Through their personal experiences and firsthand observations, they shared their impressions of China's new era and presented a credible, lovable, and respectable image of the country to the world. The contest received 3,688 entries from international students representing 196 universities across China and hailing from 133 countries. The submissions covered various aspects of China, including social governance, economic development, technological achievements, and people–to–people exchanges. These international students vividly narrated their unforgettable experiences, remarkable moments, and genuine reflections during their time in China through essays, photographs, short videos, and other forms.

线上线下同频共振 互学互鉴赓续友谊

Contest to Deepen Mutual Learning and Enhance Friendship

2022年11月22日,《当代世界》杂志社以线上线下相结

The event, themed "Understanding China' s New Era," aimed to capture the

Online Cultural Exchanges and Mutual Learning Building an Online Platform for Cultural Exchanges and Mutual Learning **59**



"感受中国新时代"主题征文、 摄影和短视频大奖赛颁奖活动现场 Speakers at the Award Ceremony of "Understanding China's New Era" Themed Essay, Photography, and Short Video Contest, Nov. 22, 2022

合方式牵头主办大奖赛颁奖活动,中共中央对外联络部部 长刘建超出席并致辞,相关单位负责同志以及中国高校和 外国在华留学生代表逾500人参会。中联部部长刘建超表 示,相关参赛作品体现出在华留学生对中国的深度认知和 全情投入,表达了对中国新时代伟大成就的亲身感受和理 性思考。留学生代表在感言中表示,进一步感悟到中国共 产党是为中国人民谋幸福的政党,也是为促进人类进步事 业而奋斗的政党。颁奖活动上,中外青年代表协作互动, 合作进行了书法琴艺秀、空竹表演、诗词诵读、歌曲联唱 等多种形式的才艺表演,彰显了中华传统优秀文化的独特 魅力,精彩纷呈、高潮迭起。

Hosted by Contemporary World Magazine, the Award Ceremony of "Understanding China' s New Era" Themed Essay, Photography, and Short Video Contest was held online and in–person on Nov. 22, 2022. Liu Jianchao, minister of the International Department of the CPC Central Committee, attended and addressed the award ceremony, which was attended by over 500 participants, including representatives of the organizations involved in the contest and international students in China.

Liu noted that the submitted works reflected the deep understanding and wholehearted dedication of international students studying in China. They expressed their firsthand experiences and thoughtful reflections on China's remarkable achievements in the new era. In their speeches, the international student representatives emphasized the CPC's commitment to the well–being of the Chinese people and its dedication to advancing the cause of human progress.

During the award ceremony, young representatives from China and abroad collaborated and interacted through various performances, including calligraphy, traditional Chinese musical instrument performances, diabolo displays, poetry recitations, and group singing. The performances showcased the unique charm of traditional Chinese culture and created a vibrant and uplifting atmosphere.

美美与共 同行致远

Working Together for a Shared Future

本次大奖赛及颁奖活动深化了外国留学生对共建人类命运 共同体的认同。有的留学生用文字记载参与北京冬奥会的 过程,深刻感受北京这座双奥之城的非凡魅力;有的留学 生用视频记录中国乡村的巨大变化,深刻感受中国脱贫攻 坚和乡村振兴的累累硕果;有的留学生用照片展示重走长 征路的点滴,深刻感受中国工农红军的艰苦奋斗历程。参 赛作品表现方式灵活多样,感悟体验多角度多层面,表达 了对中国的热爱、对中国成就的赞叹、对中国发展理念的 敬佩、对中国提出的各项倡议的认同和共同奋进新时代的 愿望与动力。中外青年们纷纷表示,大家一起携手向未来, 做和平发展、合作共赢理念的宣传者和践行者,为开创人 类更加美好的未来贡献青春力量。 The contest and award ceremony helped international students to better understand the concept of building a community with a shared future for humanity. Some international students documented their participation in the Beijing Winter Olympics in writing as they experienced the extraordinary charm of Beijing as a city that has hosted both the Summer and Winter Olympics. Others captured the profound changes in China' s rural areas through videos as they gained a deep understanding of the remarkable achievements in poverty alleviation and rural revitalization. Meanwhile, some students showcased their journey of retracing the Long March route through photographs as they gained a profound appreciation for the arduous struggles of the Chinese Workers' and Peasants' Red Army.

With diverse formats and multifaceted insights, they conveyed their love for China, admiration for its achievements, respect for its development philosophy, endorsement of various initiatives proposed by China, and a shared aspiration to work together in the new era. Young people from China and abroad expressed their commitment to cooperating and shaping a future characterized by peaceful development and win–win cooperation, contributing their youthful energy to creating a better world for humanity.



"感受中国新时代"主题征文、摄影和短视频大奖赛颁奖活动现场气氛热烈,中外青年代表协作互动, 进行了书法、杂技、乐器、歌曲、诗朗诵等才艺表演

Young representatives from China and abroad took part in various talent performances, including calligraphy, acrobatics, musical performances, poetry recitations, and group singing, creating a vibrant and uplifting atmosphere at the award ceremony

中国经典音乐海外传播

Overseas Dissemination of Chinese Classic Music



为提升中国音乐在世界乐坛的影响力和话语权,促进 国际交流和文化理解,上海广播电视台旗下的经典 947 广播频率从 2016 年开始与欧洲广播联盟合作,并 积极拓展与国际音乐节、名家名团的对话合作,推进 中国经典音乐的海外传播。

In order to enhance the influence and discursive power of Chinese music in the global music industry, promote international exchange and cultural understanding, Classic FM 94.7 of Shanghai Media Group has been cooperating with the European Broadcasting Union since 2016. It actively expands dialogue and cooperation with international music festivals, renowned musicians and orchestras, and promotes the overseas dissemination of Chinese classic music.


2017 "世界广播日"欧洲广播联盟年度大会和 "中国印象"音乐会于中国上海举行

"World Radio Day" European Broadcasting Union Annual Conference and "Impression of China" concert were held in Shanghai, China in 2017

听见中国音乐最新的声音,搭建国际交流对 话的平台

Hearing the latest voice of Chinese music, building a platform for international exchange and dialogue

2017 年 2 月 13 日,为庆祝欧洲广播联盟首次在欧洲以外的地区——中国上海举办"世界广播日"年度大会而特制

的"中国印象"音乐会, 欧广联向旗下 281 个成员机构发送音乐会推荐信息,并在官方平台播放特别制作的电视预告片,这也成为中国大陆首场通过欧广联面向全欧洲进行音视频直播的古典音乐会,获得 24 家欧广联成员台播出。

On February 13, 2017, to celebrate the annual World Radio Day conference of the European Broadcasting Union held in Shanghai, China, outside of Europe for the first time, a special "Impression of China" concert was organized. The European Broadcasting Union sent concert recommendations to its 281 member organizations and played a specially produced TV trailer on its official platform. This became the first classical music concert in mainland China to be broadcasted live across Europe through the European Broadcasting Union, with 24 member stations broadcasting it.

2022 年 7 月至 11 月,《947 爱乐厅 空中夏季音乐节》 全媒体系列节目是中国传媒首次最及时、广泛、深入地呈 现跨越 16 个国家 44 个夏季音乐节的 200 多场音乐会, 超 60 位中外音乐家录制专访视频参与,足迹遍及欧、美、 澳、亚四大洲,制作的音视频节目在国际音乐节、经纪公 司官网与音乐家社交媒体发布,视频直播总观看量达 160 万 +。22 场中国现场音乐会在欧洲盛夏之际播出,辐射 19 个国家和地区,覆盖超 3 亿国际受众。

From July to November 2022, the "947 Philharmonic Hall • Air Summer Music Festival "full-media series program was the first time for Chinese media to present more than 200 concerts from 44 summer music festivals in 16 countries in a timely, extensive and in-depth manner. Over 60 Chinese and foreign musicians participated in recorded interviews, with their footprints covering Europe, America, Australia and Asia. The produced audio and video programs were released on international music festivals, artist management company official websites, and musicians' social media platforms. The total live views of the video broadcasts reached over 1.6 million. 22 live music concerts in China were broadcast during the European summer, reaching 19 countries and regions, and covering an audience of over 300 million international viewers.

սվՈխ

《经典 947 空中音乐节》 通过音视频播出的重要的欧美音乐节

Important European and American music festivals broadcast through audio and video on "Classical FM 94.7 Music Festival On Air"



全媒体多元方式的呈现,经典艺术与中国人 文精神的传播

Diverse multimedia presentations, and dissemination of classical art and Chinese humanistic spirit

经典 947 以立足上海、放眼世界的格调,将最鲜活的音乐 动态、最热的音乐现场通过音视频转播、直播连线、短视 频、短音频、艺术家越洋访谈、国际广播推荐、多平台热 点发布等多元呈现方式,传播到世界各国更广阔的人群。

Classic FM 94.7, with its base in Shanghai and a global perspective, disseminates the most vibrant music dynamics and hottest music scenes to a broader audience around the world through various forms of multimedia presentations such as audio and video broadcast, live connections, short videos and audios, cross–board interviews with artists, international radio recommendations, and multi–platform hot topic releases.

2020 年"用音乐温暖世界——世界地球日 12 小时特别直播"和"贝多芬在中国——纪念贝多芬诞辰 250 周年 16 小时马拉松音乐会",全球近 20 个国家的乐团、剧院和200 多位音乐家在电波与网络相遇,共同呈现规模空前的

线上音乐会。形式多样的现场演奏,珍贵的音视频史料, 音乐家、学者、乐评人、策划人、乐迷等多视角讲述,上 海广播跨频率直播,多平台线上线下互动,中外名家名团 跨时空视频对话,全方位展现中外文化交流的最新硕果与 人文力量,引发全球爱乐者留言10余万条。其中,60多 位音乐家以"云录音"接力演奏埃尔加《爱的致意》,表 达了人类命运与共的共同心愿。

In 2020, the "Warming the World with Music-12-hour Special Live Broadcast for Earth Day" and "Beethoven in China-16-hour Marathon Concert Commemorating Beethoven's 250th Birthday" brought together orchestras, theatres and over 200 musicians from nearly 20 countries to present an unprecedented online music concert where radio waves and the Internet converged. Various forms of live performances, precious audio and video materials, perspectives from musicians, scholars, music critics, planners and fans, live broadcasts across multiple frequencies by Shanghai Radio, interactive online and offline platforms, cross-temporal and crossspace video dialogues between Chinese and foreign renowned musicians and orchestras, comprehensively showcased the latest achievements and humanistic power of cultural exchanges between China and foreign countries, and sparked over 100,000 messages from global music lovers. Among them, more than 60 musicians relayed their performances of Elgar's "Salut d' amour" through "cloud recording", expressing the common aspiration of humanity's shared future.



全媒体时代用多元呈现方式传播中国经典音乐 Use multiple presentation methods to disseminate Chinese classic music in the all-media era



经典 947 携手百位音乐家领跑"贝多芬诞辰日", 向全球音视频同步直播"贝多芬在中国 ----纪念贝多芬诞辰 250 周年 16 小时马拉松音乐会"

Classical FM 94.7 joined hands with hundreds of musicians in the "Beethoven's Birthday" event and broadcast "Beethoven in China: 16-Hour Marathon Concert in commemoration of the 250th anniversary of Beethoven's Birth" with audio and video to the global world

打造古典音乐文化品牌,彰显中国音乐、传媒的国际影响力

Build a classical music cultural brand to showcase the international influence of Chinese music and media

经典 947 为优质古典音乐资源的传播架设高效的交流平 台,实现盛况空前的"空中音乐巡礼",在记录中国之声 响彻世界乐坛的高光时刻、展现中国音乐人精神风貌的同 时,进一步促进世界重要音乐活动的国际交流,提升中国 音乐传媒的国际影响力,努力打造古典音乐文化品牌,彰 显中国文化的对外辐射力和吸引力,向世界呈现一个生动 立体的中国。

Classic FM 94.7 serves as an efficient communication platform for the dissemination of high-quality classical music resources, realizing an unprecedented "airborne music tour". While recording the glorious moments when the voice of China resounds in the world of music and showcasing the spirit and style of Chinese musicians, it further promotes international exchanges in important music events worldwide, enhances the international influence of Chinese music media, and strives to create a classical music cultural brand, highlighting the external radiation and attractiveness of Chinese culture, presenting a vivid and three–dimensional China to the world.

欧洲广播联盟播出中国音乐会超 200 场次,涉及 4 大洲近 30 个国家和地区,平均每周触达率超 1000 万受众。

The European Broadcasting Union has broadcasted over 200 Chinese concerts, involving nearly 30 countries and regions across 4 continents, with an average weekly reach of over 10 million audiences.

"中国经典音乐海外传播"项目不仅获评中国正能量"五 个一百"网络精品、中央网信办"中国好故事"地方网络 国际传播精品、国家广播电视总局"中华文化广播电视传 播工程"重点项目、长三角广播电视媒体融合优秀案例、 上海市"中华文化走出去"专项、上海广播电视台艺术人 文发展基金会专项等业界认可与高度关注,还得到海内外 音乐节和比赛官网、海外音乐家个人社交网络、国际经纪 公司官方账号、乐团媒体矩阵等平台联合发布与口碑传播。 The "Overseas Dissemination of Chinese Classic Music" project has not only been recognized and highly regarded in the industry, such as being selected as one of the "Five One Hundred" positive energy network products in China, a local networks international communication product in the "China Good Stories" project by the Cyberspace Administration of China, a key project in the "Chinese Culture Broadcasting and Television Communication Project" by the National Radio and Television Administration, an excellent case of media integration in the Yangtze River Delta region, a special project in the "Going Global with Chinese Culture" initiative by Shanghai, and a special project by the Arts and Humanities Development Foundation of Shanghai Media Group, but it has also been jointly released and spread by platforms such as official websites of international music festivals and competitions, personal social networks of overseas musicians, official accounts of international talent agencies, and orchestra media matrix.



2022 年,欧洲广播联盟播出经典 947 传送的 中国音乐会实况的国家和地区

Countries and regions where the European Broadcasting Union broadcast live Chinese concerts transmitted by Classical FM 94.7 in 2022

中国经典音乐国际传播在海外各大社交平台 与官方合作渠道被推荐发布

International dissemination of Chinese classic music has been recommended on major overseas social platforms and official cooperation channels

"大爱无国界"国际义卖活动

"Love Knows No Borders" International Charity Sale



"大爱无国界"国际义卖活动线上主会场(数乡宝藏旗舰店)

Digital Country Treasures Flagship Store-online venue of "Love Knows No Borders" International Charity Sale

"大爱无国界"是 2009 年由外交部长夫人和各驻华外交代表机构共同发起的一项国际 义卖活动,迄今已举办 14 届,活动也已成为中外朋友交流、传递和发扬和衷共济、团 结互助的"大爱精神"的平台,产生了广泛、积极的社会影响。

"Love knows no borders" is an international charity event launched by the wife of the foreign minister of China and diplomatic missions in China in 2009. It has been held for 14 times and has become a platform for Chinese and foreign friends to exchange, transmit, and promote the "spirit of love" of harmony, solidarity, and mutual assistance. The event has also become a platform for Chinese and foreign friends to communicate, convey, and carry forward the "spirit of great love" and solidarity and has had a wide and positive social impact.

40多国共献爱心,展现大爱精神

More than 40 countries share the love and show the spirit of great love

2020年开始,受疫情影响,义卖活动的线下 举办遇到困难,阿里巴巴集团提供云义卖解决 方案,连续支持三年,不但解决了活动面临的 挑战,也让活动的影响力得到了进一步的拓展。 2023年1月17日-2月13日,第14届"大 爱无国界——温暖成长路"活动在天猫"数乡 宝藏旗舰店"主会场进行,并继续在淘宝直播 "央视新闻"直播间开展直播带货活动,共筹 集来自41个国家、欧盟、3个国际组织捐赠 的义卖商品5万余件。2月8日晚,来自印度 尼西亚、南非、卢旺达、乌兹别克斯坦、西班 牙、泰国、爱尔兰、意大利等国的外交官们齐 聚直播间,推介自己国家的特色好货,吸引了 近80万人次观看。线上义卖活动整体持续近 1个月,吸引千万消费者关注。

In 2020, due to the pandemic, it was challenging to organize offline sales activities, so Alibaba Group provided a cloud charity sale solution for three consecutive years, which not only solved the challenges faced but also allowed the activities to expand their influence further. From January 17th to February 13th, 2023, the 14th "Love Knows No Borders-Showered with Love" was held at the main venue of Tmall's "Digital Country Treasure Flagship Store" and continued to conduct live streaming on Taobao's "CCTV News" live streaming room, which raised a total of more than 50,000 pieces of charity goods donated by 41 countries, the European Union, and three international organizations. On the evening of February 8, diplomats from Indonesia, South Africa, Rwanda, Uzbekistan, Spain, Thailand, Ireland, Italy, and other countries gathered in the live-streaming room to promote their country's special goods, attracting nearly 800,000 people to watch. The online charity sale activity lasted for almost one month and attracted the attention of millions of consumers.



线上义卖主会场 各国商品展示

The main venue of the online charity sale displayed the goods of various countries



卢旺达驻华大使直播带货 The Rwandan Ambassador in the live

streaming

68 网上文化交流 打造网上文化交流共享平台, 促进交流互鉴



数字化"公益宝贝"产品设置 A showcase of "Goods for Good"

数字化解决方案为活动注入新活力

Digital solutions breathe new life into events

2020年,受疫情影响,义卖活动无法在线下举办。阿里巴巴集团以淘宝、天猫等 电商平台,以及阿里巴巴公益基金会的"公益宝贝"产品的数字化、平台化的特点, 同时通过菜鸟提供物流服务,为活动提供了整套云义卖解决方案,同时创造性推 出了配有同传的外交使节公益直播带货新亮点,为"大爱无国界"注入新的活力, 也为各国宣传文化、旅游和特色产品提供了新的平台,受到热烈追捧。同时各国 驻华使节也亲身感受到了电商直播"秒空"的巨大威力,对于中国数字经济发展 支持各国经贸往来、助力乡村振兴的实践予以了高度赞赏。

In 2020, due to the pandemic, the charity sale could not be organized offline. Alibaba Group has provided a complete set of cloud charity sale solutions for the event on Taobao, Tmall, and other e-commerce platforms, as well as the digitization and phantomization of the Alibaba Foundation's "Goods for Good" products and the logistics services provided by Cainiao, while creatively launching new highlights of charity live streaming by diplomats equipped with simultaneous interpreters. It injected new vitality into "Love Knows no Borders" and provided a new platform for countries to publicize their culture, tourism, and distinguished products, which was warmly sought after. At the same time, diplomats also personally felt the incredible power of the live streaming of e-commerce and highly appreciated the development of China's digital economy to support economic and trade exchanges between countries and help rural revitalization.

大爱破圈,吸引更多关注

"Love Knows no Borders" attracts more and more attention

第 14 届义卖活动获得善款近 60 万元,并帮助云南省金平县、麻栗坡县等帮扶县 的农产品、民族工艺品等实现 10 多万元销售额。义卖所得善款被用于支持改造、 新建云南省金平县和麻栗坡县 100 所农村寄宿制中小学校的浴室,解决当地近 2 万名师生洗澡缺乏场地和热水的问题,提供温暖的生活保障和卫生保障。但更为 重要的是,这一活动给了许许多多阿里巴巴普通员工首次参与的机会,给了许许 多多各国在淘宝天猫平台上的商家首次参与的机会,给了许许多多全国各地消费 者首次参与到这一原来只在北京线下举办的活动中的机会,通过互联网和爱把世 界各国联系在一起,真正展现出人类命运共同体的理念。 The 14th charity sales event received nearly 600,000 RMB and helped to realize more than 100,000 RMB in sales of agricultural products and ethnic handicrafts in counties of Yunnan Province, such as Jinping and Malipo. The proceeds from the sale were used to support the renovation and construction of bathrooms in 100 rural boarding primary and secondary schools in Jinping and Malipo counties in Yunnan Province, solving the problem of lack of space and hot water for nearly 20,000 teachers and students to take a bath, and providing warmth and hygiene protection. More importantly, this event gave many ordinary Alibaba staff, many merchants on Taobao's and Tmall platform, and many consumers from all over the country for the first time to participate in this event, held initially offline in Beijing. It connected the countries of the world through the Internet and love and truly demonstrated the concept of "a Community with a Shared Future for Mankind."



阿里巴巴集团员工参与志愿服务 Alibaba staff participating in volunteer service

《看中国》新媒体传播平台项目

A Glimpse of China: a Project on New Media Platforms



《看中国》新媒体传播平台 A Glimpse of China: New Media Platform

申报机构 Applying Institution

中共中央对外联络部新闻办公室

Information Office of the International Department of the CPC Central Committee

其他参与机构 Other participating organizations

四达时代集团 StarTimes Group



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation >

马拉维、尼日利亚、坦桑尼亚、 肯尼亚等 49 个撒哈拉以南非洲国家

49 sub-Saharan African countries such as Malawi, Nigeria, Tanzania, Kenya

为对非介绍中国共产党带领中国人民取得 的伟大成就,促进中非网络文化交流与文 明互鉴,增进中非人民相知相亲,中联部 新闻办与四达时代集团合作开展《看中国》 新媒体传播平台项目,提供中国和中共最 新权威信息。

To introduce the outstanding achievements made by the Chinese people under the leadership of the CPC, promote China–Africa cyber cultural exchanges, and enhance friendship between the Chinese and African peoples, the Information Office of the International Department of the CPC Central Committee has been cooperating with StarTimes Group to carry out "A Glimpse of China," a project on new media platforms, providing the latest authoritative information about China and the CPC.

依托三大平台, 打造非洲"中国之窗""中共之窗"

Three Platforms to Create a "Window to China" and a "Window to the CPC" in Africa

项目以视频为主要表现形式,依托四达时代客户端 Startimes ON《看中国》英、法语短视频专区,自办数字 电视频道《看中国》英、法语专题电视节目,以及19个 非洲国家 Facebook 主页等三大平台对非播出投放,以生 动活泼的方式讲述中国共产党执政为民的理念与成就,推 介中华优秀传统文化。截至2023年6月,项目围绕中国 式现代化、建党百年、全球文明倡议、"一带一路"、北 京冬奥等累计推出19期电视节目,覆盖非洲37国1600 万个家庭,总收看量达1621.6万。《看中国》短视频专 区面向非洲近50国发布中非友好交往合作和中国政治外 交、经贸投资、历史人文等相关短视频1203条,总点击 量达4932万。四达时代在非十余国的Facebook 账号共 发布《看中国》推广帖文150篇、总触达用户110.3万, 互动率达 5.3%。

The project is mainly promoted through videos broadcast to Africa on three major platforms: "A Glimpse of China" English and French short videos on the StarTimes ON app, "A Glimpse of China" English and French TV specials on self-operated digital TV stations, as well as Facebook homepages for 19 African countries. The videos explain the philosophy and achievements of the CPC in exercising power in the interests of the people and promoting Chinese traditional culture in a lively way. Until June 2023, 19 TV programs have been launched, covering topics of the 20th CPC National Congress, Chinese modernization, the centenary of the founding of the CPC, the Global Civilization Initiative, the Belt and Road Initiative, and the Beijing Olympic Winter Games, etc., reaching 16 million households in 37 African countries and a total of 16.2 million views. The run of "A Glimpse of China" short videos consists of 1203 short videos on China-Africa friendship and cooperation, as well as the diplomacy, trade and investments, history and humanities of China, etc., with a total of 49.3 million views. StarTimes' Facebook accounts in more than 10 African countries have published 150 posts promoting the program, reaching 1.1 million users, and the interaction rate achieved 5.3%.



《看中国》英语、法语专题电视节目 A Glimpse of China: TV Programs (in English and French)

三个"相结合"为对非传播提质增效

Three Combined Pairs Giving Flight to Communication Between China and Africa

一是传统媒体与新兴媒体相结合。依托非洲电视广泛受众的同时积极开拓青年人关注的新媒体和 Facebook 等社交 媒体传播阵地, "大屏 + 小屏"联动实现涉党涉华信息在 非真正落地传播。二是权威报道与百姓故事相结合。将凸 显中国共产党治国理政思想理念的时政新闻报道与展现思 想理念具体实践、丰硕成果的百姓鲜活故事相结合,让关 注中国、中共的非洲受众"解渴"的同时感到"好喝"。 三是非洲面孔与中国声音相结合。邀请在非具有较高知名 度、曾参演央视春晚节目的加蓬籍主持人宝拉主持电视节 目,并对非近十国政党政要、留学生等进行专题采访,以 当地民众熟悉的面孔讲述中国发展成就、中共执政经验, 发出非洲民众听得懂、听得进的中国声音,真正拉近中非 人民距离。

Firstly, we've combined traditional media and new media. While relying on the wide African viewership of StarTimes TV channels, we are also actively exploring new media and social media like Facebook, which are immensely popular among younger demographics. Such a combination of big screens and small screens effectively disseminates information related to the CPC and China in Africa. Secondly, authoritative news reports are published alongside everyday stories. We not only report current news highlighting the ideology and philosophy of governance of the CPC but also tell stories of ordinary people, demonstrating the concrete practices and success of the ideals of the CPC. Thus, we successfully satisfied the curiosity of African audiences interested in China and the CPC while providing them an enjoyable viewing experience. Thirdly, there is the combination of African faces and Chinese voices. We' ve invited Gabonese host Paula, who is well-known in Africa and has appeared in the CCTV Spring Festival Gala, to host the TV program. We' ve conducted a series of interviews with political party dignitaries and international students from nearly ten African countries. This ensures that the stories of China's development, achievements, and the experience of the CPC in governance are told to the locals by people with familiar faces and that the voice of China is conveyed in a manner that the African people understand and appreciate. Such is how we can truly bring the Chinese and African peoples closer together.



架起中非友好桥梁, 传播效果引发国际广泛关注

The Program has Attracted Wide International Attention and Coverage

近3年来,《看中国》新媒体传播平台累计触达超 6660 万人,成为中国展示中华优秀传统文化、经济社会成就的 良好平台,同时也有力推动国际社会特别是非洲社会对中 国共产党执政理念和中国特色社会主义道路理论制度的了 解、理解和认同。海外网友纷纷留言表示,"了解到非洲 和中国之间长期以来的友好交流,各方面的务实合作正在 发展"、"感受到了中国人民的精神面貌和中国的璀璨文 化,对中国有了更清晰的认识"、"节目清晰展示了中国 历史遗迹,中国在过去几十年的各项创新举措及成就"等 等。此外,《看中国》项目推出受到了国际特别是非洲媒 体的广泛关注。刚果(金)国家电视台、赞比亚 Liquid Ice 电视台等传统媒体,尼日利亚 Nigeria News Abroad、肯尼 亚 GhettoRadio、乌干达 PMLDaily、卢旺达 KT Press、美 国 China-Africa Project 等网络媒体,以及坦桑尼亚 Sam Misago、Bongo5.com 等社交媒体网红账号转载或播发评

论性报道《<看中国>:展示令人耳目一新的现代社会》《< 看中国>在 Startimes ON 上受到青年群体的欢迎》等。

In the past three years, A Glimpse of China has reached an audience of over 66.6 million viewers and has become an influential platform to showcase traditional Chinese culture and China's economic and social achievements. The program has successfully promoted the comprehension and acknowledgment of the governance philosophy of the CPC and the path, theories, and system of socialism with Chinese characteristics in the international community, especially the African community. Overseas netizens have commented, " I've learned about long-term friendly exchanges between Africa and China and their extensive ongoing collaboration", " I gained insights into Chinese people and their illustrious culture and I feel I know China better", "The program vividly illustrated China's historical heritage, innovations, and achievements in the past decades." Furthermore, A Glimpse of China has attracted wide international attention since its launch, especially from African media. Reports like "A Glimpse of China, enjoying popularity among the youth with the StarTimes ON app" and "A Glimpse of China: Showing a Refreshing Modern Society" were shared and discussed by traditional media, including National Television of Congo (Kinshasa), Liquid Ice Television of Zambia, and digital media platforms, including News Abroad from Nigeria, Ghetto Radio from Kenya, PML Daily from Uganda, KT Press from Rwanda, and The China-Africa Project from America. Social media influencers and businesses, such as Sam Misago from Tanzania and Bongo5, also participated in the discussion.



构建数字职教背景下的"一带一路"教育命运共同体

Building a "Belt and Road" Education Community with a Shared Future in the Context of Digital Vocational Education



2020 届校企订单班学生通过线上培训在印尼 oss 公司就业

Graduates from the Class of 2020 School-Enterprise Order Program were employed at OSS Company in Indonesia through online training (申报机构 Applying Institution)

无锡职业技术学院 Wuxi Institute of Technology



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

孟加拉国、不丹、柬埔寨、中国、 印度尼西亚等 10 个国家和地区 10 countries and regions such as Bangladesh, Bhutan, Cambodia, China, Indonesia

当前数字技术正深刻影响人类社会发展各领域, 数字技术与教育的融合能够让世界各国学生享受 数字教育带来的成果,加强人文交流、分享知识、 提升人才培养水平、促进经济社会转型发展,构 建"一带一路"教育命运共同体。

Currently, digital technology is profoundly affecting the development of human society in various fields. The integration of digital technology and education enables students from different countries to enjoy the fruits of digital education, strengthen humanistic exchanges, share knowledge, enhance the level of talent cultivation, promote the transformation and development of the economy and society, and build a shared "Belt and Road" educational community with a Shared Future.

"互联网+职业教育",打造面向"一带一路" 区域国际教育金品牌

"Internet + Vocational Education" to create a golden brand of international education for the "Belt and Road" region

近年来,无锡职业技术学院高度重视在教育数字化背景下 的对外交流与合作,先后与美国、澳大利亚、爱尔兰等 国家举办了8个中外合作办学项目及机构,培养近10000 名具有国际视野的技能人才,招收了60多个国家和地区 的 2000 余名各类留学生来校学习,分别与江苏德龙镍业 有限公司、浙江华立集团成立无锡职业技术学院一德龙印 尼学院、泰国罗勇机电学院等海外分校,与马来西亚管理 与科学大学、印尼特里莎克迪教育集团共建汉语中心,来 开展"中文+技能"培训达17万人每日。利用数字教学 资源库和虚拟仿真平台开展"中文+技能"培训,依托学 校"中国 – 东盟教师培训发展中心"完成了180名东盟高 校教师培训,实施"中文+技能"订单式培养,近三年累 计为德龙工业园输送 142 名"知华友华"的技能型员工, 通过资源共享、标准研发、技术服务与文化交流等活动, 实现了"园-企-校"产教国际合作共同体与职业教育国 际化协同发展的聚合效应。

In recent years, Wuxi Institute of Technology (WXIT) attaches great importance to foreign exchanges and cooperation in the context of education digitization and has successively organized eight international cooperative educational projects and joint programs with the United States, Australia, Ireland, and other countries, cultivating nearly 10,000 skilled personnel with a global perspective, and enrolling more than 2,000 international students from more than 60 countries and regions to study on campus. WXIT established overseas branches such as Wuxi Institute of Technology-Delong Indonesia College and Rayong Mechatronics College, Thailand, with Jiangsu Delong Nickel Industry Co. Ltd. and Zhejiang Huali Group, established Chinese language centers with the University of Management and Science Malaysia and Trisakti Education Group in Indonesia, and carried out "Chinese + Skills" training for 170,000 people per day. WXIT uses a digital teaching resource library and virtual simulation platform to carry out "Chinese + Skills" training, relying on the school's "China-ASEAN Teacher Training and Development Center" to complete

the training of 180 ASEAN university teachers and implement the "Chinese + Skills" training programs. With the "Chinese + Skills" order–based training, 142 skilled employees who know China and are friendly to China have been sent to Delong Industrial Park in the past three years. Through resource sharing, standard research and development, technical services, and cultural exchanges, we have realized the convergence effect of the "Park–Enterprise–Institute" community of international cooperation in industry and education and the synergistic development of the internationalization of vocational education.



学校与江苏德龙镍业有限公司的第三批 订单班留学生获得毕业证书

The third batch of international students from the School partnered with Jiangsu Delong Nickel Industry Co., Ltd. received their graduation certificates

夯实数字基础设施,打造国际数字教育平台, 建设优质数字资源

Strengthen digital infrastructure, create an international digital education platform, and build quality digital resources

学院通过夯实数字基础设施,建设优质数字资源,打造互 联互通的优质数字资源"供水池"。全面升级与"一带一 路"国家基础网络,实现学校"双万兆"宽带国际国内互 联,建设"一大四小"五个虚拟仿真实训中心,服务实训 教学全流程,建设10个专业70余门课虚拟实训仿真资源, 实现情景式学习,通过优质数字资源,提升来华留学生及 中外合作办学机构学生数字化信息素养。依托"信息技术+ 课程"模式,学校在线学习资源中心提供给包括"一带一路" 沿线国家留学生在内的全课程信息化资源。目前已建课程 1342门,每月在线开展教学活动数达万余次,实现自主学习、 个性化学习,提升学生高效学习能力和数字素养。

WXIT has built an interconnected pool of high-quality digital resources by consolidating digital infrastructure and building high-quality digital resources. It has comprehensively upgraded the fundamental network with the "Belt and Road" countries with high-speed, stable, low-latency, realized the school's "double 10,000-megabit" broadband international and domestic interconnections, built many IPv6 applications of digital resources, constructed "one big, four small" five virtual simulation training centers, served the whole process of practical training and teaching. created a set of "distance learning, Intelligent management, teaching guality evaluation." In addition, more than 70 virtual training simulation resources for ten majors are constructed to realize situated learning, and the digital information literacy of international students and Chinese-foreign cooperative educational institutions is improved through high-guality digital resources. Relying on the "Information Technology + Curriculum" model, WXIT's Online Learning Resource Center provides full-course information resources for international students from countries along the Belt and Road. Currently, 1,342 courses have been developed, and more than 10,000 teaching activities are carried out online monthly to achieve independent and personalized learning and improve students' efficient learning ability and digital literacy.



Wuxi Vocational and Technical College's Data Center

教育数字化国际合作结硕果, 打造"一带一路"教育数字"软"联通

International cooperation on education digitization bears fruit, creating a "soft" connection for education on the Belt and Road

学院将优势办学资源和企业优势产业资源相融合,通过优 质教学资源"池"和教育国际化能力"链",打造"留学 锡职"精品工程,探索出招收、培养、实习、就业一条龙 的"订单式"校企合作海外人才培养模式,同时把海外分 校打造成为集学历教育、技能培训、技术服务、人文交流 "四位一体"的海外综合性职业教育办学机构,推动无锡 职业技术学院"教育国际化方案"不断升级。学校先后获 得"互联网+"创新创业大赛国际赛道铜奖,世界职业院 校与技术大学联盟(WFCP)应用研究与创新金奖,蝉联全 国高职院校国际影响力50强,教育数字化提升"一带一路" 国家教育质量和普惠化、均等化、优质化水平,促进"人 人皆学、处处能学、时时可学"教育命运共同体。

WXIT integrates the advantageous school-running resources with the practical industrial resources of enterprises and creates the "Study in WXIT" project through the "pool" of high-quality teaching resources and the "chain" of internationalization ability of education. The boutique project explores the "order-class" institute-enterprise cooperation overseas talent cultivation mode of one-stop recruitment, cultivation, internship, and employment. "At the same time, WXIT will build the overseas branch campuses into four-inone overseas comprehensive vocational education institutions integrating academic education, skills training, technical service, and humanistic exchange, provide all-round services for the cultivation of technical and skilled talents in overseas Chinese enterprises, realize the interaction and organic integration of international teaching standards, international teaching resources and international education capabilities, promote and upgrade "WXIT's Education Internationalization Solution" to the next level, WXIT has won the bronze medal of the international track of "Internet+" Innovation and Entrepreneurship Competition, the gold medal of award of excellence of the World Federation of Colleges and Polytechnics (WFCP) in Applied Research and Innovation, and has been ranked as one of the top 50 TVET institutions in China in terms of international influence. The digitalization of education has provided a strong impetus for transforming public services in education, improved the quality of education in the "Belt and Road" countries and the

level of universality, equalization, and quality, and promoted "education for all." It will enhance the quality of education in the "Belt and Road" countries and promote the education community with a Shared Future, which means "learning is available for everyone, everywhere, every time."



留学生利用数字资源开展交互式学习 International students utilized digital resources for interactive learning



世界职业院校与技术大学联盟 (WFCP) 应用研究与创新金奖 The World Federation of Colleges and Polytechnics (WFCP) awarded the Gold Prize for Applied Research and Innovation

78 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

让甲骨文以数字化形式回归殷墟

Bringing Oracle Bone Inscriptions to the Yin Ruins in Digital Form



殷契文渊 - 甲骨文大数据平台 Oracle Bone Inscriptions Information Processing Lab

申报机构 Applying Institution

中国社会科学院考古研究所 甲骨文信息处理教育部重点实验室 腾讯 SSV 数字文化实验室

Institute of Archaeology, Chinese Academy of Social Sciences Oracle Bone Inscriptions Information Processing Lab Digital Culture Lab, Sustainable Social Value Org, Tencent



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

英国、美国、俄罗斯、韩国等 10 个国家和地区 10 countries and regions such as United Kingdom, United States of America, Russia, Republic of Korea 甲骨文是迄今为止中国发现的年代最早的成 熟文字系统。殷墟出土的近16万片甲骨文分 散收藏于世界各地近200家机构中,以"物 理形式"回归殷墟几无可能,为促进中华文 化传播、增进文明交流互鉴,建设甲骨文数 字化互联网平台,让甲骨文以数字化形式回 归殷墟是最佳选择。

Oracle bone script is the earliest mature writing system discovered in China. Nearly 160,000 pieces of oracle bone inscriptions excavated from the Yin Ruins are scattered in almost 200 institutions worldwide. The physical return of these inscriptions to the Yin Ruins is practically impossible. To promote the dissemination of Chinese culture, enhance cultural exchanges, and build a digital internet platform for oracle bone script, returning oracle bone inscriptions to the Yin Ruins in digital form is the best choice.

数字化平台聚合、连接中外, 古代文明焕发新机

Digitization Platform Unites and Connects Ancient Civilizations, Sparking a Renaissance

甲骨文数字化工程是一项不同国家、不同组织和机构共同 完成的大型国际化项目,共创团队与加拿大英属哥伦比亚 大学、美国芝加哥大学、英国杜伦大学、英国剑桥大学等 知名高校及研究机构初步达到合作机制,共同推动此项工 程的顺利进行。在甲骨学全球领军人物宋镇豪先生指导下, 中国社会科学院考古研究所、安阳师范学院、腾讯 SSV 数字文化实验室深度共创,以甲骨文信息处理教育部重点 实验室主导建设的当今最大型、全免费的甲骨文资源共享 平台——"殷契文渊"为基础,全面分析各类型甲骨实物 及文字的特点,形成甲骨采集、建模、存储、展示、共享 的标准规范和数字工具箱,初步实现了甲骨文数字化工程 的试点建模。

The Oracle Bone Script Digitization Project is a significant international initiative that brings together different countries, organizations, and institutions. Collaborative teams have established initial partnerships with renowned institutions such as the University of British Columbia in Canada, the University of Chicago in the United States, Durham University in the United Kingdom, and the University of Cambridge. These partnerships collectively drive the smooth progress of the project.

Under the guidance of Mr. Song Zhenhao, a leading figure in oracle bone studies, deep collaborations have been established between the Institute of Archaeology at the Chinese Academy of Social Sciences, Anyang Normal University, and Tencent's SSV Digital Culture Laboratory. Together, they have developed today's most prominent and entirely free oracle bone resource–sharing platform, "Yin Qi Wen Yuan." This platform serves as the foundation for the project and is led by the Key Laboratory of Oracle Bone Information Processing of the Ministry of Education. The project comprehensively analyzes the characteristics of various oracle bone artifacts and inscriptions, establishing standard specifications and a digital toolbox for oracle bone collection, modeling, storage, display, and sharing. It represents the initial implementation of the Oracle Bone Script Digitization Project.



与剑桥大学交流甲骨文三维建模技术 Exchange with the University of Cambridge on Oracle Bone Script Three-Dimensional Modeling Technology

新兴计算机和互联网科技助力, 不断提升创新性

Empowered by Emerging Computer and Internet Technologies, Continuously Enhancing Innovation

最大程度地保存甲骨及其承载文字的原始面貌,是甲骨文 数字化工程实现永续保存与传承的目标。以三维建模、微 痕增强、人工智能等技术为基础的"甲骨文全信息模型" 将突破传统甲骨文研究对拓片、摹本、照片的依赖,使在 看清甲骨文字的同时,还能看到笔画叠压、墨书、涂改等 其他原来看不到的相关信息,为甲骨研究特别是查重及缀 合研究带来革命性的变革。

The primary goal of the Oracle Bone Script Digitization Project is to preserve and pass on the original appearance of oracle bones and the texts they bear to ensure their sustainable preservation and inheritance. The "Oracle Bone Script Full Information Model," based on technologies such as 3D modeling, micro–mark enhancement, and artificial intelligence, will break free from the traditional reliance on rubbings, imitations, and photographs in oracle bone script research. This innovative approach shows researchers more details in oracle bone inscriptions, such as stroke overlays, ink traces, and revisions, revolutionizing oracle bone studies, particularly in homologous oracle bone inscriptions detection and shattered oracle bone re–join.



甲骨文全信息数字模型 Comprehensive Digital Model of Oracle Bone Script

项目团队将会协调中国甲骨收藏单位,尽快立项甲骨文数 字化采集、建模技术规范,公布相关国家标准或推荐标准。 这样一项以计算机技术和互联网为基础的大型文化工程, 无论是在新兴科技领域,还是在世界古代文明研究领域中 都具有开创性意义。 The project team will collaborate with Chinese institutions that house oracle bone collections to promptly establish standards for oracle bone script digitization and modeling techniques, and then publish relevant national or recommended standards. This large–scale cultural project, built upon computer technology and the internet, holds pioneering significance not only in emerging technologies but also in the research of ancient civilizations worldwide.

开放、公益、属于人类共同财富的数字化平台

An Open, Non–Profit, and Human Heritage Digital Platform

专业性、创新性之外,公益性也是甲骨文数字化工程所秉持的主要理念之一。只有全民的持续关注与参与,古代文明才能 在当下焕发生机与活力,团队开发的"了不起的甲骨文"微信小程序是"让甲骨文活起来"探索之一。"共享理念、权威 发布、信息公开、高效便捷、智能互动"理念,是甲骨文数字化工程在开放性和公共性方面的原则保障。甲骨文数字化工 程不仅可以实现散落世界各地的殷墟甲骨以全新的科技形式回归故里,同时还能有效推动世界范围内甲骨文学术研究的高 效互动与分享,让全世界各国热爱甲骨文、喜爱中国古代文明的普通民众都能参与其中,使得中华文明同样也是世界文明 的优秀文化遗产得到更加广泛的传播,实现共享精神财富的愿景。 Beyond its expertise and innovation, the Oracle Bone Script Digitization Project holds a core belief in public welfare. Only with the continuous attention and participation of the public can this ancient civilization thrive in the present. The "Incredible Oracle Bones" WeChat mini-program developed by the team is one of the initiatives to bring the oracle bone script to life. The principles of "shared ideas, authoritative publication, information transparency, efficiency, and intelligent interaction" form the foundation of the project's openness and public accessibility. The Oracle Bone Script Digitization Project enables oracle bones from the Yin ruins, scattered around the world, to return to their homeland in a new technological form and facilitates efficient global interaction and sharing in the field of oracle bone script research. This way, ordinary people around the world interested in oracle bone script and ancient Chinese civilization can participate, spreading the excellent cultural heritage of Chinese civilization to a broader audience and realizing the vision of sharing the wealth of cultural heritage.

甲骨文活化与传播的新探索

New Explorations in Reviving and Disseminating Oracle Bone Script

团队依据"殷契文渊"甲骨文大数据平台开发的"甲骨文 广播体操"是"让甲骨文活起来"的探索之二。甲骨文广 播体操全操共9节内容,使用19个甲骨文,将古文字、音乐、 舞蹈、体育等多学科融合创新,给古老的甲骨文字赋予新 的生命力,让甲骨文走进了大众视野,达到了文化性、趣 味性、训练性一体的目标,使甲骨文绝学不绝、冷门不冷、 代有传承。

The "Oracle Bone Script Broadcast Gymnastics," developed by the team based on the "Yin Qi Wen Yuan" Oracle Bone Script Big Data Platform, is the second exploration in the initiative to "bring oracle bone script to life." The Oracle Bone Script Broadcast Gymnastics consists of nine sections, using 19 oracle bone script characters, and creatively integrates various disciplines such as ancient writing, music, dance, and sports. This innovation breathes new life into the ancient oracle bone script, bringing it into the public sight. It simultaneously achieves cultural, entertaining, and instructional goals, ensuring that oracle bone script remains widely accessible and passed down through the generations.



丝绸之路数字图书馆

The Silk Road Digital Library



2018 年 5 月, 丝绸之路国际图书馆联盟正式成立 The Silk Road International Library Alliance (SRILA) was formally established in May 2018

申报机构 Applying Institution

国家图书馆

National Library of China



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

亚美尼亚、白俄罗斯、孟加拉国、 文莱等 36 个国家和地区 36 countries and regions such as Armenia, Belarus, Bangladesh, Brunei 国家图书馆在文化和旅游部指导下,为丝绸 之路国际图书馆联盟搭建"丝绸之路数字图 书馆"(简称"丝路数图")。丝路数图集"一 带一路"主题文献资源展示、业界交流资讯 发布等功能于一体,推动成员机构优秀资源 的共建共享,促进各国文化交流互鉴。

Under the guidance of the Chinese Ministry of Culture and Tourism, the National Library of China (NLC) has constructed the "Silk Road Digital Library" (SRDL) website for the Silk Road International Library Alliance (SRILA). The SRDL integrates functions of the Belt & Road Initiative (BRI) thematic literature resources display and industry exchange information dissemination. It facilitates the co-construction and the sharing of valuable resources among member institutions and promotes cultural exchange and mutual learning among nations woldwide.

立足图书馆界专业优势,面 向全球提供资源与资讯服务

Provide digital resources and information services worldwide through professional librarianship advantages

作为一个国际数字图书馆项目, 丝路 数图以专题网站形式,为联盟全球 36 个国家的 42 家成员机构提供基于 互联网的数字资源和业界资讯服务。 项目立足国际图书馆界专业领域, 围 绕古今丝绸之路和"一带一路"重 大倡议等主题,发布展示了数字化 珍贵古籍、电子图书、音视频、图片、 线上展览等主题资源,并定期更新发 布全球各成员机构的相关新闻资讯。 日前国家图书馆已组织两期联盟馆 员线上培训班,邀请来自中国、越南、 新加坡、沙特阿拉伯和俄罗斯8家 成员机构的专家授课,并将全部课 程视频在网站上专栏发布,促进成 员机构员工的信息素养和业务能力 提升。



丝绸之路国际图书馆联盟现有成员机构 Both the domestic and international member institutions of the SRILA

As an international digital library project, the SRDL is a thematic website providing internet–based digital resources and industry information services to 42 member institutions from 36 countries within the SRILA. Anchored in the professional realm of international librarianship, the project focuses on themes like the historical and contemporary Silk Road and the BRI. It showcases digitalized rare ancient books, modern e–books, audiovisual resources, images, and online exhibitions while consistently updating and publishing news from member institutions worldwide. The NLC has conducted two rounds of online training courses for SRILA librarians. Experts or senior librarians from eight member institutions, including China, Vietnam, Singapore, Saudi Arabia, and Russia, were invited to provide training courses. The complete course videos have been published in a dedicated section on the SRDL, aimed at enhancing the information literacy and professional competence of librarians across member institutions.



联盟第二期线上培训班授课视频在丝路数图网站上发布 The 2nd online training course videos were published on the SRDL website



One-click Chinese/English switch on the resource detail page

重视网站功能实现,提升互联网传播效应

Maximize Internet dissemination effect by optimizing functions of the website

丝路数图作为中国首个丝绸之路文化主题的国际图书馆界 交流互鉴项目,国家图书馆将专业优势与网站服务特点相 结合,以数字资源彰显丝路文明特色,以资讯增进联盟成 员相互了解,以培训视频提升馆员专业技能。借助该网站 在国际图书馆界弘扬丝路精神,讲好中国故事。此外,专 题网站还在功能细节中紧扣主题进行开发:页面元素设计 体现了项目创新性和国际化特色;网站适配各类移动终端 设备;同时为保障项目国际化服务效果,包括页面文字、 元数据信息和视频字幕在内的全站内容均以中英双语呈 现。专题网站为全球用户提供全站内容中/英文一键切换 浏览功能,设置支持中英双语的全站内容检索功能,还在 资源或资讯详情页面增设国际主流社交媒体分享按钮。

As China's first international library exchange and mutual learning project based on the cultural theme of the Silk Road, the SRDL combines the professional advantages of librarianship with the features of website services. It highlights the characteristics of civilizations along the Silk Road with digital resources, enhances mutual understanding among SRILA members with news information, and upgrades the professional skills of librarians with training course videos. Hence, the SRDL promotes the Spirit of the Silk Road and tells China's stories well in the global library community. In addition, the construction of the thematic website was closely aligned with this theme in the details of its functions. The design of page elements reflects the project's innovation and international character. The website is optimized for various mobile devices. Moreover, the entire website content, including page text, metadata information, and video subtitles, is presented in English and Chinese to ensure global service efficiency. The website provides a one-click function for users overseas to switch between English and Chinese content throughout the site. It incorporates a comprehensive content retrieval function supporting both languages. Moreover, it provides social media sharing buttons for popular international SNS platforms on resource or news detail pages.

依托联盟国际合作机制,发挥平台在人文交流领域作用

Promote cultural exchange in the global library community based on the mechanism of the SRILA

国家图书馆充分履行对外文化交流职能,开展国际图书馆 交流合作,对实现"一带一路"重大倡议下的"民心相通" 目标具有重要意义。丝路数图努力实现联盟各成员机构优 质资源的共建共享,由项目实施带动联盟内部其他各项业 务交流,增进联盟各国成员机构彼此间相互了解,为汇聚 更多来自国外图书馆的优质资源打下牢固基础。国家图书 馆在构建人类命运共同体理念指引下,致力在国际图书馆 界推动不同文明交流对话,将丝路数图建设成全球图书馆 界美美与共的世界文明百花园。 The NLC fulfills its role in international cultural exchanges by engaging in international library cooperation, which holds significant importance in achieving the "people–to–people connectivity" goal under the BRI. The SRDL strives to accomplish the co–construction and sharing of valuable resources among member institutions of the SRILA. The project's implementation stimulates various business exchanges within the Alliance, enhancing mutual understanding among member institutions from different countries and establishing a solid foundation for gathering more high– quality resources from overseas libraries. Guided by the concept of building a community with a shared future for Mankind, the NLC is dedicated to promoting dialogue and exchange between different civilizations in the international library community. The aim is to develop SRDL into a world garden of civilizations where the global library community can share the beauty of diverse cultures.

丝绸之路国际图书馆联盟论坛会议现场 The conference site for the SRILA Forum





国家图书馆依托联盟机制举办东南亚图书馆员研修班 The National Library of China organizes a Southeast Asian Librarians Workshop based on the alliance mechanism

86 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

用影像记录时代,借网络走向世界 —— "扎西德勒"西藏网络影像节

Recording The Times with Images and Going to the World Through the Internet – "Tashi Delek" Xizang Internet Photography & Video Festival



"扎西德勒"第三届西藏网络影像节概念海报 The Third "Tashi Delek" Xizang's Internet Photography & Video Festival Concept Poster

"扎西德勒"西藏网络影像节以大美西藏、幸福西藏、和谐西藏为视觉和听觉出口,以时代议题凝 聚精神力量,将伟大奇迹浓缩在影像里,润物无声,讲好西藏故事,传播西藏好声音。

The "Tashi Delek" Xizang' s Internet Photography & Video Festival has set the themes of visual and auditory feasts: Beautiful Xizang, Happy Xizang and Harmonious Xizang. Combining the spiritual strength with contemporary issues, great achievements shown by photos and videos have been publicized, which helps to tell attractive stories and spread positive personalities and deeds of Xizang.

遇见西藏,扎西德勒

Meeting Xizang • Tashi Delek

2020年以来,西藏先后举办三届网络影像节,依托人民网、 新华网等媒体机构的强大传播矩阵,并在其10余个外文 频道,脸书、推特、优兔等全球性社交媒体以及多语种权 威传播平台发布全球征集公告,多平台贯通,最大范围拓 宽作品来源,评选全球优质涉藏影像作品,致力于搭建网 络国际传播新平台、讲好西藏故事新阵地、展示西藏形象 新窗口。

Since 2020, Xizang has successively held three Internet Photography & Video Festivals. The festivals have not only cooperated with prestigious media institutions like People's Daily Online and Xinhua News Agency, but also issued notices of collecting global works on more than 10 foreign–language channels, worldwide social media platforms such as Facebook, Twitter, YouTube and other authoritative multi–lingual communication platforms. Through the diversified platforms, the festivals have expanded the source of submitted works to the greatest extent as possible to select high–quality photos and videos with the theme of Xizang globally, which has presented the aims of the festivals: constructing a new platform for online international communication, spreading positive personalities and deeds of Xizang and showing an attractive image of Xizang.

三年间,共征集全球涉藏影像作品 14.2 万余件,总阅读 量达 13.96 亿次。第二届西藏网络影像节荣获"中国好故事" 网络国际传播精品奖。第三届西藏网络影像节收到英国、 芬兰等地的网友投稿作品 1571 件,其中图片《天湖纳木错》 《南迦巴瓦峰》及短视频《世界屋脊进入"复兴号"高铁 时代》《扎什伦布寺游记》等国际网友投稿作品获奖。 Over the past three years, a total of over 142,000 photos and videos related to Xizang have been collected worldwide, with total clicking & reading times of 1.396 billion. Among the three festivals held, the second Xizang Internet Photography & Video Festival has won the "China Good Story" International Network Communication Excellence Award. Furthermore, the third Xizang Internet Photography & Video Festival has received 1,571 submissions from netizens of the U.K., Finland and other countries. Of all these high–quality works, the photos "Namtso Lake" and "Nancha Barwa" as well as the short videos "The Roof of the World Enters the Era of the Renaissance High Speed Rail" and "Journey to the Tashilhunpo Monastery" have won awards.



国际网友投稿作品《天湖纳木错》 "Heavenly Namtso" From A International Netizen

以影像为媒,讲好西藏故事

Using Photos and Videos as the Mediums to Tell Attractive Stories of Xizang

西藏网络影像节设置原创图片、短视频、H5、网络歌曲、微电影等单元,用技术创新赋能文化传播,通过全球互联网平台 全方位发起征集,为全球关心西藏、热爱西藏的网友提供展示自我、表达喜爱的人文交流平台,为向往西藏、未曾到过西藏 的网友提供认识西藏、了解西藏、爱上西藏的网络传播平台,让身处世界各地的网友足不出户品味西藏的美景、文化及动人 的故事,留下超越时空的记忆。

88 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

西藏网络影像节以影像作品征集为基础,积极拓宽传播领 域,通过开展"遇见西藏·扎西德勒"网络国际传播活动, 举办"你好,新西藏"圆桌对话,在脸书、推特、优兔等 全球性社交媒体平台展播优质作品,着力打通从策划、征 集到评选、展播、推广的全链条,扩大传播半径,延长传 播周期,释放更深层次的传播价值,把真实、立体、全面 的西藏介绍给世界,面向全球网友讲好西藏故事,传播西 藏好声音。

The Xizang Internet Photography & Video Festival welcomes the submission of works on the aspects of original images, short videos, H5, Internet songs and micro–films, aiming to combine cultural dissemination with technological innovation. Through various global internet platforms, it initiates a worldwide collection to construct the following high–quality



海外媒体报道截图 Screenshots of Overseas Media' Report

让西藏走向世界,让世界了解西藏

Let Xizang Be Internationally Recognized and Let the World Understand Xizang



online platforms for netizens to know more about Xizang: a cultural exchange platform for people who care about and love Xizang to showcase themselves and express their love, a communication platform for people who yearn for Xizang and have never been to Xizang before to know, understand and fall in love with it, a platform for people from all over the world to appreciate the beauty, splendid culture and attractive stories as well as form a long–lasting positive memory of Xizang without leaving their homes.

Based on collecting photos and videos worldwide, the Xizang Internet Photography & Video Festival has actively expanded the field of communication. It has not only held the "Meeting Xizang • Tashi Delek" online international communication activity and the "Hello, New Xizang" round-table conference, but also utilized global social media platforms such as Facebook, Twitter and YouTube to present high-quality works. Efforts have been made to perfect the aspects of planning, collection, selection, exhibition and promotion, aiming to expand the timing and range of Xizang's cultural spread. Under the influence, not only can profound cultural value of Xizang be released, but also the global introduction of Xizang can be realized in a real, three–dimensional and comprehensive way, helping to tell attractive stories and spread positive personalities and deeds of Xizang to the netizens worldwide.

西藏凭借独特的高原风光、民族文化和巨大的发展成就, 受到全球广泛关注。西藏网络影像节的举办为西藏走向世界、世界了解西藏提供了重要窗口。第三届西藏网络影像 节历时9个月,共收到作品8.28万件,活动资讯及作品 展播全网阅读量达到8亿次,覆盖美国、加拿大、俄罗斯 等100多个国家和地区,涵盖中、英、日、法、西、俄、阿、韩、 德、葡等多个语种,在韩联社、日本 Record-China、哈 萨克斯坦通讯社、南非非洲时报等70余个国家和地区的 媒体落地传播,国际传播阅读量超过3.5亿次,真正形成 了具有一定影响力的涉藏网络国际传播品牌。

Xizang has received great attention worldwide for its unique plateau scenery, ethnic culture and tremendous development achievements. The conducting of the Xizang Internet Photography & Video Festival provides a precious opportunity for Xizang to be internationally recognized and obtain a more comprehensive understanding from other countries. The third Xizang Internet Photography & Video Festival lasted for 9 months and received 82,800 works. The related information and works exhibition had reading times of 800 million on the network, covering more than 100 countries and regions such as the United States, Canada, Russia, etc. Moreover, multiple languages like Chinese, English, Japanese, French, Spanish, Russian, Arabic, Korean, German and Portuguese have been used to broadcast the news of the festival on the media of over 70 countries and regions like Yonhap news agency of Korea, Japan's Record China, Kazakhstan News Agency Media, the South African Times etc., realizing the international reading times of over 350 million and forming an influential international communication brand of Xizang.



优质作品《奔向新生活》 Note: "Running To A New Life" Of High Quality



优质作品《天上宫殿》 "Heavenly Potala Palace" Of High Quality



优质作品《网红打卡点》 "Internet-famous Spot" Of High Quality

Manjula Sheth सपर ऐकसलसटेड डागा इज डागा सपर ऐकसलसटेड ओके 發 回复 隐藏 发消息 查看翻译 4天 ♥ 超级纷纷 Steve Rice Manny incredible unique earth style situations everywhere in the whole country. 赞回复隐藏发消息4天 @ #503\$91# Jan Maurits Pieter Vlasbloem What a beauty!! Incredible pictures , really showing the diversity of China's landscapes 👌 🎳 🎳 🞀 發回复 隐藏发清息 4天 Summerrose Flores 赞回复 隐藏 发消息 4天 ⊕ 超级粉丝 Sofiah Teow Beautiful places 赞回复隐藏发清息 4天

海外社交媒体网友留言截图 Screenshot Of Comments From Overseas Social Media Users

中国 - 阿拉伯国家短视频大赛

China-Arab Video Competition



支持单位: 中国国家广播电视总局 主办单位: (同联首)中同卫视 中青丝路(北京)传媒有限公司 阿布扎比传媒集团 Awaan促换网系

首届中国 - 阿拉伯国家短视频大赛 1st China-Arab Video Competition 〔申报机构 Applying Institution 〕

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



条例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

阿尔及利亚、巴林、中国、 科摩罗等 22 个国家和地区 22 countries and regions such as Algeria, Bahrain, China, Comoros

构建各国、各民族文明成果展示平台,推动各种文化 交流、学术往来、人才交流、知识分享、媒体合作等。

Establishing platforms for displaying achievements in civilizations of all countries and people, promoting online cultural exchanges, academic communication, people-to-people exchanges, knowledge sharing, and media cooperation.



首届中阿短视频大赛基本情况

Basic information of the 1st China–Arab Video Competition

为发挥新媒体传播优势,促进中阿文明交流互鉴和视听产 业合作,2021年12月6日,在国家广播电视总局和阿拉 伯国家广播联盟的指导下,首届中国 – 阿拉伯国家短视频 大赛在全球社交媒体平台正式启动。大赛由中阿卫视具体 承办,以"友谊和希望"为主题,聚焦文化、生活、旅游、 科技、经贸五大领域,面向中阿各国青年征集原创短视频 作品,旨在深化中阿青年视听交流,共同讲好中阿友好故事。

To give full play to the advantages of new media communication and promote cultural exchanges and mutual learning between China and Arabian countries as well as audio–visual industry cooperation, on December 6th, 2021, under the guidance of the National Radio and Television Administration and the Arab States Broadcasting Union, the 1st China–Arab Video Competition was officially launched on social media platforms worldwide. Under the theme of "Friendship and Hope," the contest mainly focuses on the five fields of culture, life, tourism, technology, and commerce. It aims to collect original video works for Chinese and Arabian youth, deepen audio– visual exchanges between them, and jointly tell stories of China–Arab friendship.



参赛作品题材广泛、内容丰富,全方位、多领域展示中阿友好交往

The entries have a wide range of themes and various content, showing China–Arab friendly exchanges in all–round and multi–field

本次大赛,共有来自中国、阿联酋、沙特、埃及、约旦、 摩洛哥、黎巴嫩、苏丹、也门等十多个国家的青年代表选 送作品 1600 余条,网络投票总数超过 100 万人次。参赛 作品的题材涵盖广泛,既有旅居各阿拉伯国家的华人华侨、 留学生、海外务工人员的海外生活体悟,也有长期在中国 学习、工作、创业的阿拉伯各国商人、职员的美好经历, 还包括阿拉伯人用唱汉语歌、开设自媒体方式宣传推介中 国的自发行动,以及中国企业在阿拉伯国家参与抗疫斗争 的感人故事。 More than 1,600 entries were submitted by youth representatives from more than ten countries, including China, the UAE, Saudi Arabia, Egypt, Jordan, Morocco, Lebanon, Sudan, and Yemen, and more than 1 million votes were cast online. The subjects of the entries range widely, including the life experiences of overseas Chinese, students and workers in Arabian countries, the experiences of businessmen and employees from Arabian countries who have studied, worked, and started businesses in China for a long time, and the Arabian people who promote China by singing Chinese songs and opening self-media. As well as the touching stories of Chinese enterprises participating in the fight against COVID–19 in Arab countries.

(fab) 中国一阿拉伯国家国际短视频大会

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首届中国 - 阿拉伯国家短视频大赛参赛作品 The 1st China-Arab Video Competition Entries



首届中阿短视频大赛走进大学 The 1st China-Arab Video Competition "Into Universities"

首届中阿短视频大赛走进埃及、阿联酋 The 1st China-Arab Video Competition

积极开展线上线下配套交流活动,创新开展 新媒体国际传播

Launch online and offline supporting communication activities, and innovate new media for international communication

大赛期间,共配套组织6场线上线下的"走进高校"系列 青年交流活动,邀请中阿11所高校参加。其中包括北京 大学、北京外国语大学、北京第二外国语大学、北京语言 大学、迪拜美国大学、阿联酋大学、阿布扎比大学、摩洛 哥穆罕默德五世大学、埃及苏伊士运河大学、伊拉克萨拉 赫丁大学、沙特国王科技大学等,共有500余人参加活动。 此外,主办方将参与比赛的中阿青年组织起来,建立"中 阿短视频创作训练营",由中阿卫视担任"短视频创作辅 导员",搭建起中阿青年日常交流的桥梁。

Six online and offline "Into Universities" series of youth exchange activities were organized during the competition, and 11 Chinese and Arabian universities were invited to participate. More than 500 participants from Peking University, Beijing Foreign Studies University, Beijing International Studies University, Beijing Language and Culture University, American University of Dubai, United Arab Emirates University, University of ABU Dhabi, Mohammed V University of Morocco, Suez Canal University of Egypt, Salahuddin University of Iraq and King Saudi University of Science and Technology participated in the event. In addition, the host will organize the Chinese and Arabian youth participating in the competition to set up a "China–Arab video creation training camp," with Arab Satellite TV serving as the "video creation instructor," building a bridge for daily exchanges between Chinese and Arabian youth.



服务元首外交,配合首届中阿峰会举办大赛 颁奖典礼,营造良好舆论氛围

Launched at the sideline of China–Arab States Summit, creating a favourable atmosphere for China–Arab States cooperation and friendship

为积极配合首届中阿峰会,营造良好舆论氛围,于2022 年12月举办首届中阿短视频大赛颁奖典礼。来自摩洛哥 歌手迪娜的作品《唱越山海,爱跨两洲》摘得特等奖桂冠, 《小洋人》《我看这十年》《一个中国馆志愿者的中文故 事》等10部作品分获一二三等奖。时任国家广播电视总 局副局长乐玉成、阿联酋驻华大使扎希里、沙特驻华大使 哈勒比、约旦驻华大使胡萨姆出席活动,并为获奖选手颁 奖。获奖作品分别在中阿卫视电视频道和中阿社交媒体平 台播出,取得了良好反响。

The first China–Arab Video Competition award ceremony was held in December 2022, just a few days before the opening of the China– Arab States Summit. Moroccan singer Dina's work "Singing across the mountains and Oceans, Love across Continents" won the special prize, and ten entries, including "Little Foreigner," "This Decade In My Eyes," and "The Chinese Story of a Volunteer in the China Exhibition Center" won the first, second and third prizes. Le Yucheng, the then vice minister of the National Radio and Television Administration, UAE Ambassador to China Zahiri, Saudi Ambassador Khalebi, and Jordanian Ambassador Husam, attended the event and presented awards to the winners. The winning projects were broadcast on China–Arab TV channels and China–Arab social media platforms and received a good response.



一等奖获得者方浩明(伊拉克) First Prize winner ALOBAIDI AMEEN(Iraq)



首届中国 - 阿拉伯国家短视频大赛颁奖现场 The 1st China-Arab Video Competition Award presentation ceremony

"电亮中土,'碳'梦未来" 聚焦"Z世代", 共话中土跨文化融合故事

"GO Green For Future" Cross-Cultural Activities of Generation Z between China and Türkiye



State Power Investment Corporation Huanqiu.com

其他参与机构 Other participating organizations

北京尤努斯埃姆雷土耳其文化中心 上海大学土耳其研究中心 土耳其伊兹密尔经济大学

Beijing Yunus Emre Turkish Cultural Center Center for Turkish Studies of Shanghai University Izmir University of Economics





YUNUS EMRE

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

土耳其、中国 Türkiye, China 国家电投企业开放日活动 "Go Green For Future" SPIC Open Day

"电亮中土,'碳'梦未来"

"电亮中土,'碳'梦未来"跨文化系 列活动,面向中、土两国"Z世代"青 年,为中土两国青年搭建分享绿色生活 方式、探索低碳美好生活的平台,以讲 好能源企业服务低碳转型的良好实践 和"Z世代"青年奋力追梦的动人故事。

"Go Green for Future" is a cross-cultural series of activities aimed at the "Z generation" youth from China and Türkiye. It provides a platform for young people from both countries to share green lifestyle practices and explore a low-carbon and beautiful life. The activities aim to showcase the good practices of energy companies in serving the low-carbon transition and the inspiring stories of the "Z generation" youth pursuing their dreams.

活动形式新颖丰富,打造跨文化活动标杆

Creating a Cross-cultural Event Benchmark with Innovative and Rich Formats

"电亮中土,'碳'梦未来"跨文化系列活动,以"绿色"和"梦想" 为主线贯穿全程,先后推出"来吧!碳想家"中土青年摄影 大赛、"来吧!追光者"摄影作品云展播以及"来吧!追梦人" 中土青年脱口秀大会等一系列广受"Z世代"青年欢迎的活动, 活动聚合政界、学界、企业界、媒体界等不同圈层人群的能量, 搭建多元对话平台,获得中国驻土耳其大使馆、北京土耳其 文化中心、上海大学土耳其研究中心、土耳其伊兹密尔经济 大学的大力支持。

The activities revolve around themes of "sustainable future" and "dream chasing_o" It has successfully launched a series of activities widely we loomed by the "Z generation" youth, including the "Go! Green Thinker" Sino–Turkish Gen Z Photography Competition, "Go! Light Catcher" Sino–Turkish Online Photography Exhibition, and the "Go! Dream Chaser" Sino–Turkish Gen Z Talk Show. The activities combine the energy of different sectors, such as politics, academia, business, and media, providing a platform for diverse dialogues. They have received strong support from the Chinese Embassy in Türkiye, the Beijing Turkish Cultural Center, the Shanghai University Turkish Studies Center, and the Izmir University of Economics in Türkiye.



"来吧! 碳想家"中土青年摄影大赛报名海报 "Go! Green Thinker" Sino-Turkish Gen Z Photography Competition-registration poster

对接中土双视角,"组合拳式"输出可持续发展合作故事

A Dual Perspective Story on Sino–Turkish Collaboration for Sustainable Development

为加强中、土两国"乙世代"青年参与度,活动采用乙言乙语、乙玩法,流程设计到传播过程,节奏紧凑、环环相扣。

In order to increase the participation of "Generation Z" youth from China and Türkiye, the activities are designed and the content is disseminated, taking into account and combining the preferences of the Generation Z youth. The activities are fast–paced and interconnected.

96 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

以摄影大赛为例,在主题设计上,以"来吧!碳想家"为主题,设置"电亮未来""绿色印记""多彩文化""环保卫士"四个作品单元,迎合"气候变化""环境保护""生物多样性" 以及"文化融合"等"Z世代"青年关注的热点议题;在形式 设计上,把握国际传播领域移动化、社交化、可视化的趋势, 在乐于接受和易于理解上下功夫,鼓励参赛者参与比赛的同 时,在社交媒体上分享作品,参与相关话题讨论,最大程度 激发"Z世代"群体的参与热情;在环节设计上,为了不断强 化受众的记忆点,保证活动参与持续性,推出"来吧!追光者" 摄影作品云展播,选取优秀摄影作品在社交媒体上进行展示, 注重讲好故事,以"小而美"的故事展现影像背后青年对"可 持续发展"和"绿色未来"的关注和思考,将活动带向高潮。



Taking the photography contest as an example, in terms of theme design, it focuses on the theme "Go! Green Thinker" and sets up four categories: "Power the Future," "Green Mark," "Cultural Diversity," and "Guardians." These categories cater to the hot topics of "climate change," "environmental protection," "biodiversity," and "cultural integration" that the "Z generation" youth are concerned about. Regarding format design, it grasps the trends of mobility, socialization, and visualization in international communication. It emphasizes being easily accepted and understood, encouraging participants to share their works on social media and engage in related discussions, thus maximizing the participation enthusiasm of the "Z generation" group. In segment design, to continuously reinforce the audience's memory points and ensure sustained participation in the activities, the online exhibition of outstanding photography works, named " Go! Light Catcher," is launched. Selected excellent works are showcased on social media, focusing on telling compelling stories. Through these "small but beautiful" stories, the attention and reflections of young people on "sustainable development" and "green future" behind the images are presented, bringing the activities to a climax.



"来吧! 追光者"摄影作品云展播内容展示 "Go! Light Catcher" Sino-Turkish Online Photography Exhibition

以"Z世代"为桥梁,多种形式共话"绿色" 与"融合"

Building Bridges with Generation Z: Diverse Conversations on "Green" and "Integration"

通过摄影大赛、青年演说等形式,吸引了众多中土青年 的积极参与,大赛启动后一个月内收获 200 余人投稿共 1018 份精彩作品。其中不乏获得过国际性赛事奖项的专 业摄影师、博主大V。活动还受到了中土留学生群体的热 烈关注和好评。"通过参加这次比赛我感受到了国家对环 保理念的宣传和重视,我作为一个青年大学生,更会贴合 实际去践行环保理念,并且借助自媒体平台宣传环保。" 高校学生韦苏南不仅投稿了自己拍摄的一组环保主题作 品,还在专访中表达了自己对此次活动的积极看法及对环 保的思考。来自清华大学核能专业土耳其研究生 Zeynep Sena Nas 表示: "绿色能源意义重大,作为清华大学的 一名研究生,我很高兴参加了'来吧!追梦人'中土青年 脱口秀,有机会谈一谈我作为"Z世代"对绿色能源发展 的看法。" Through forms such as photography contests and youth speeches, it has attracted active participation from numerous young people in China and Türkiye. Within a month of the contest launch, more than 200 participants submitted 1018 outstanding works. Among them are professional photographers and social media celebrities who have won international awards. The event has also received enthusiastic attention and praise from the Chinese and Turkish students studying abroad community. "By participating in this competition, I have felt the countries' promotion and emphasis on environmental protection concepts. As a university student, I will actively practice environmental protection concepts in line with reality and promote them through social media platforms," said Wei Sunan, a college student. He submitted a series of environmental-themed works he photographed and expressed his positive views on the event and his thoughts on environmental protection. Zeynep Sena Nas, a Turkish graduate student majoring in nuclear energy at Tsinghua University, said, "Green energy is of great significance. As a graduate student at Tsinghua University, I am delighted to participate in the "Go! Dream Chaser" Sino-Turkish Gen Z Talk Show and have the opportunity to discuss my views on green energy development as a member of Generation Z."



推特平台部分参赛者投稿作品 Partial submissions from participants on Twitter "来吧! 追梦人"中土青年脱口秀大会 -土耳其的清华大学核能专业研究生 Zeynep Sena Nas 发言截图 "Go! Dream Chaser" Sino-Turkish Gen Z Talk Show-Zeynep Sena Nas, a Turkish graduate student majoring in nuclear energy at Tsinghua University
汇集多领域强阵容嘉宾,实现高潮迭起传播浪潮

Bringing together a strong lineup of guests from various fields to achieve a continuous surge in the spread of influence

活动收官仪式上,重磅嘉宾给予高度评价。中国驻土耳其大使馆称此次活动无论对于两国青年、还是企业都非常有意义。 北京土耳其文化中心主任塔伊风·卡尔坎表示,本次活动不仅加强了两国之间的经济联系,更通过促进文化交流把两国 人民的目光聚焦在了"气候变化"这一全球性的问题,提升了其他国家对于全球可持续发展的关注,对中国"3060"双 碳目标的关注,这对凝聚绿色发展共识、促进中土两国深化多领域合作具有重要意义。活动收获包括央视、新华社、《中 国日报》、土耳其阿纳多卢通讯社、NTV等超过 20 家中土主流媒体报道。今日世界报将新闻放置于头条版面。

At the event's closing ceremony, the heavyweight guests gave high praise. The Chinese Embassy in Türkiye stated that this event is of great significance to the two countries youth and business community. Tayfun Kalkan, the director of the Beijing Yunus Emre Cultural Center, said that this event not only strengthened the economic ties between the two countries but also focused the attention of the people of both countries on the global issue of "climate change" by promoting cultural exchanges. It has also increased the awareness of other countries of international sustainable development and the Chinese "3060" dual–carbon target. It is significant to consolidate the consensus on green development and promote deepening cooperation in various fields bet ween China and Türkiye. The event received coverage from over 20 mainstream media outlets in China and Türkiye, including CCTV, Xinhua News Agency, China Daily, Anadolu Agency, and NTV. Also, Today's World News placed the news on the front page.



活动收官仪式现场截图 The closing ceremony of the event

哔哩哔哩以纪录片出海推动网上文化交流

Bilibili Advances Online Cultural Exchange Through the Development of Overseas Business with Documentaries



哔哩哔哩纪录片基于优质内容生态的国 际联合出品

Bilibili's international co-produced documentaries, based on its quality content ecosystem and strategy

致力于成为世界文明交流互鉴的重要媒介、对外讲 好中国故事的平台载体。以纪录片出海推动网上文 化交流,加强中国形象和中华文化的传播,创作诠 释好中华优秀传统文化和当代中国价值观的优秀作 品,提升文化创造力。

Billibili is committed to becoming a significant medium for the exchange and mutual learning of world civilizations and a platform for telling China' s stories to the world. Billibili leverages documentaries to promote online cultural exchange, strengthens the dissemination of China's image and culture, creates excellent works that interpret the amazing traditional Chinese culture and contemporary Chinese values and enhances cultural creativity. It opens a new chapter of China–style modernization and opening up to the outside world.

积极与知名机构联合出品,开拓国际化播出 渠道

Bilibili actively cooperates with renowned broadcasters and production teams and explores international distribution

哔哩哔哩(以下简称"B站")与央视、华纳兄弟探索集团、BBC Studios、迪士尼等多个国际顶级厂牌建立合作, 推出多款口碑之作。如,2020年与BBC Studios 达成战略 合作,双方在多部重磅纪录片(如《绿色星球》《王朝2》《求 偶游戏》等)中展开合作,并筹备制作更多讲述中国文化 的纪录片,深度挖掘中国故事背后的文化背景和文化价值。

Bilibili has established cooperation with China Media GroupWarner Bros. Discovery Inc., BBC Studios, Disney, and many other top domestic and international brands, launching several acclaimed works. For instance, with BBC Studios, the two sides collaborated on several heavyweight documentaries (such as "The Green Planet," "Dynasties 2" and "The Mating Game") and are preparing to produce more documentaries about Chinese culture, profoundly exploring the cultural background and values behind Chinese stories.

截止 2023 年 3 月, B 站已将 20 部、195 集纪录片发行至 全球上百个国家和区域。其中,与美国史密森尼频道以及 德国电视二台联合出品的历史类纪录片《史诗女武将・妇 好》,在半岛电视台、德法公共电视台等多家世界主流媒 体播出,播出覆盖美国、加拿大、墨西哥等美洲国家与地 区,德国、法国、意大利、奥地利、瑞士等欧洲国家与地 区,以及伊朗、伊拉克、苏丹、埃及等中东国家与地区。

As of March 2023, Bilibili had released 20 documentaries with 195 episodes in hundreds of countries and regions worldwide. Among them, the historical documentary "Epic Women Warrior – Fu Hao," produced jointly with the Smithsonian Channel and ZDF, was broadcast on mainstream media such as AL Jazeeraand ARTE and covered countries in the Americas, Europe, the Middle East, and other regions.



《绿色星球》 The Green Planet



《史诗女武将·妇好》 Epic Women Warrior - Fu Hao

创新采用年轻化的语态表达,用精品内容讲 好中国故事,将国际成熟 IP 做本土化融合

Bilibili adopts a youthful tone to express itself innovatively, tells China's story with quality content, and adapts international mature IP to local culture

B 站纪录片"由互联网平台驱动""面向网生用户制作""注 重观众的互动体验与传播性",在制作中,不断打破创作 局限,尝试更多题材风格、叙事模式、视听语言,尝试更 具实验性和先锋性的设定,从而寻找知识性、娱乐性和传 播性的最大公约数。

Bilibili documentary series, driven by internet platforms and produced for NetGen users, prioritizes audience interaction and virality. It consistently breaks creative norms for production, experimenting with a broader range of themes, styles, storytelling, and audio–visual languages. It seeks to incorporate more experimental and avant–garde elements to maximize its informativeness, entertainment value, and outreach.



例如纪录片《舞台上的中国》,是以艺术名家与千禧一代 年轻观众的视角,探究中国传统舞台艺术如何与当代表演 有机结合;再如纪录片《未来漫游指南》是由中国作家刘 慈欣亲自参与讲述的第一部科幻 + 科普系列纪录片;又如 根据国际成熟 IP 打造的纪录片《决胜荒野之华夏秘境》, 以求生专家的视角,在展示求生知识和探险家精神的同时, 带领全球观众领略中国最美的景致,呈现中国生态多样性 保护成果。

For example, "China on Stage" in the 2022 National Intangible Cultural Heritage "Selection Recommending List" focused on traditional Chinese stage art, such as vocal music, dance, instrumental music, and theatre. Through the perspective of stage art masters and millennial audiences, it explored how traditional Chinese stage art organically integrates with contemporary cultural and social contexts, demonstrating its inexhaustible vitality.

"Rendezvous with the Future," a three-part, 50-minute science-fiction and future science documentary series produced by BBC Science Unit for Bilibili, is the first science-fiction and future science documentary series featuring the world-famous Chinese Sci-Fi writer Liu Cixin as the primary contributor and narrator, combining the most forward-thinking science and the Sci-Fi stories from Liu's works and blurring the boundaries between Sci-fi and reality.

"First Man Out with Ed Stafford," Warner Bros. Discovery's top-notch IP featuring the world's top survival expert and adventurer Ed Stafford, has formed a unique content eco-system around survivalists and bushcrafts on Bilibili. Based on the observation and analysis of the viewing habits and interests of the users, Bilibili coproduces with Warner Bros. Discovery on "First Man Out: China," bringing this IP to China, leading global audiences to experience China's most beautiful yet treacherous terrains, presenting China's diverse landscapes and ecological protection achievements through the perspective of survival experts, tense yet joyful race, life-saving bushcraft skills, and optimistic adventurer spirit.

持续为社会公众提供丰富、优质的纪录片

Bilibili keeps providing rich and high-quality documentaries for the public

作为中国最大的纪录片观看平台之一,2022年,约1.6亿 用户在B站看纪录片,累计观看时长达1.88亿小时。纪 录片已成为B站第二大专业内容品类。同时,为了更好地 服务全国劳动者和青年人,自2022年起,B站将每年五 月第一周定为"bilibili纪录片开放周",将站内优质纪录 片作品对公众开放,免费观看。

In 2022, about 160 million users watched documentaries on Bilibili, with a cumulative viewing time of 188 million hours, making the documentary the second–largest occupationally generated content category on Bilibili. "Bilibili Documentary Open Week" is held annually in the first week of May, starting in 2022.



哔哩哔哩纪录片开放周 Bilibili Documentary Open Week



哔哩哔哩纪录片发布会 Bilibili Documentary Release Conference

在今年开放周期间,B站共开放3572部优质纪录片于公众 免费观看。同期,还举办了第二届纪录片发布会,对外发 布了36部纪录片作品,包括与Warner Bros. Discovery、 BBC Studios等纪录片厂牌合作的巨制《单挑荒野》 《亘古文明》等,题材涵盖美食、自然、医疗等领域。

In 2023, 3572 high-quality documentaries were available for public free viewing. The "Bilibili Documentary Release Conference" in 2023 announced the release of 36 documentaries, including the premium series like "Marooned with Ed Stafford" and "Ancient Powers," coproduced with overseas documentary brands such as Warner Bros. Discovery and BBC Studios, covering genres such as science, wildlife, culture, etc.

此外,B 站还推出"探照灯计划"与"恒星计划",前者 是针对纪实内容的提案征集计划,后者是与全球专业机构 深度合作,打造专业、深度的优质纪录片。

Bilibili also launched the "Searchlight Program" and "Stellar Program," which collaborate deeply with professional organizations at home and abroad to continuously develop innovative and diversified content to enhance the influence of professional organizations and create inspirational, captivating, and high–quality documentaries.

国家大剧院线上系列演出

The Online Series of Performances by the National Center for the Performing Arts (NCPA)

申报机构 Applying Institution

国家大剧院



National Centre for the Performing Arts

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

美国、加拿大、英国、法国等 175 个国家和地区 175 countries and regions such as United States of America, Canada, United Kingdom, France



艺术 + 科技——一座有温度的"云端"剧院 Art + Technology—A Warm "Cloud" Theatre

2020 年初,新冠肺炎疫情突然爆发,全球表演艺术行 业进入寒冬。国家大剧院发挥国家文化平台作用,在 危机中育先机、于变局中开新局,在线上推出抗疫文 艺作品,以此慰藉心灵、鼓舞士气、增强信心,并自 同年4月11日起,每周六晚通过互联网向全世界观众 免费播放高品质演出,为艺术插上科技的翅膀,让艺 术点亮未来希望。

At the beginning of 2020, the sudden outbreak of the COVID–19 pandemic plunged the global performing arts industry into a winter chill. The National Center for the Performing Art (hereinafter referred to as NCPA), as a national cultural platform, seized the opportunity in the crisis and launched online anti–pandemic artistic works to comfort the soul, boost morale, and enhance confidence. Starting from April 11th of the same year, it began to broadcast high–quality performance for free to audiences worldwide every Saturday evening through the Internet, giving art the wings of technology and illuminating the hope for the future.



国家大剧院线上系列演出以四季为主题 The NCPA Online Performance Series is Themed around the Four Seasons

插上科技的翅膀,以艺术普惠全球观众

With the wings of technology, art reaches global audiences

国家大剧院线上系列演出的门类涵盖"歌乐舞剧戏",每周六晚通过 60 余个媒体平台进行直播。

The genres of the NCPA Online Series Performance cover "singing, music, dance, opera, and drama", and they are broadcasted live every Saturday evening through more than 60 media platforms.

在大剧院倾力打造下,以艺术为媒,全球艺术家携优秀作品,通过这个网络空间的艺术舞台与全球网友相见。该项目至今已播出197场,点击量超过51亿(其中全球项目22个,通过剧院和中央媒体的25个海外社交媒体账号,以9种语言覆盖全球六大洲,175个国家和地区,海外点击量超过2400万)。

With the support of NCPA artists from around the world bring their outstanding works to this online artistic stage, connecting with global netizens through the power of art. Up to now, the project has presented 197 performances with over 5.1 billion views (including 22 globally projects, covering 175 countries and regions across six continents in 9 languages and through 25 overseas social media accounts of the theater and central media.The overseas vies have exceeded 24 million).



以艺术抚慰人心, 点亮希望 Using Art to comfort the soul and illuminate hope



世界知名艺术家、机构纷纷参与, 全球观众反响热 国家大剧院线上演出播出矩阵(部分) NCPA Online Performance Broadcast Matrix (partial)

The participation of renowned artists and institutions has garnered enthusiastic response from audiences worldwide

英国皇家歌剧院、西班牙马德里皇家歌剧院、德国柏林歌 剧基金会、墨尔本交响乐团、圣保罗交响乐团等多家国际 艺术机构参与了播出;琉森音乐节、玛莎葛兰姆现代舞团、 以色列爱乐乐团、阿根廷科隆剧院等多家机构参与提供了 优质演出;捷杰耶夫、艾森巴赫、沃格勒、藤田真央、谭 盾、郎朗、杨雪菲、拉斐尔・阿吉雷、宁峰等艺术家参与 到该项目中。

Several international art institutions, including the Royal Opera House (sites in Covent Garden, London, UK), the Royal Theatre in Madrid (Teatro Real), the Berlin Opera Foundation (Stiftung Oper) in Berlin, the Melbourne Symphony Orchestra, and the São Paulo Symphony Orchestra, participated in the broadcast. Many organizations such as the Lucerne Festival, the Martha Graham Dance Company, the Israel Philharmonic Orchestra, and the Teatro Colón in Argentina provided high–quality performances. Artists such as Valery Gergiev, Christoph Eschenbach, Jan Vogler, Mao Fujita, Tan Dun, Lang Lang, Yang Xuefei, Rafael Aguirre and Ning Feng were in volved in this project.

探索表演艺术发展新方向,领航业内"云端 剧场"发展

Exploring New Directions in Performing Arts and Leading the Development of the "Cloud Theatre" in the Industry

从线下剧场演出到"云端"线上演出,这不仅是演出空间 的转换,更是艺术生产方式的改变,和创作要素的重新组 合。科技与艺术的新融合,在让艺术的传播拥有更广阔天 地的同时,也深入影响着艺术创作本身。大剧院在线上演 出中,尝试将表演搬到舞台之外,并通过 XR、AR、VR 等数字技术与表演艺术的结合创新,令线上演出展现出无 穷的创造力。项目已累计制作节目超过两万分钟。

From live performances to "cloud" online performances, this is not only a transformation of performance space, but also a change in the way artistic production and the recombination of creative elements. The new fusion of technology and art not only provides a broader platform for the dissemination of art, but also deeply influences the artistic creation itself. In the online performances of NCPA, attempts have been made to move the performing beyond the stage and to innovate by combining digital technologies such as XR, AR and VR with performing arts, showcasing infinite creativity in online performances. The project has produced over 20,000 minutes of programs.

与此同时,该项目还成功实现了全球首次舞台艺术 "8K+5G"直播、中俄两国艺术家首次云端演绎经典音乐 作品、首次举办12小时不间断直播的"线上艺术节"等 一系列首创。

At the same time, the project has successfully achieved the world's first "8K+5G" live broadcast of stage art, the first cloud interpretation of classical music by artists from China and Russia, and the first "online art festival" with12 hours of uninterrupted live streaming, among other groundbreaking initiatives..

从传统精深的中国戏曲,到传承不衰的西方经典,从满怀 期待静候大幕拉开,到随时随地划开掌上屏幕,艺术触达 的空间被无限延展。国家大剧院线上演出从策划、制作、 呈现、传播、国际交流等各方面,不断推陈出新、深耕不 倦,发展成为一种独特的演出形态,打开了舞台艺术发展 的新思路、新空间。

From the traditional and profound Chinese opera to the enduring Western classics, from eagerly awaiting the opening of the curtains to accessing art anytime and anywhere through handheld screen, the space reached by art is infinitely extended. The online performances of NCPA, from planning, production, presentation, dissemination, international exchange, and other aspects, constantly innovate and deepen, developing into a unique form of performance, opening up new ideas and spaces for the development of stage art.



舞台艺术"8K+5G"直播,科技为艺术插上翅膀 Stage Art Live Broadcast by "8K+5G", High-Tech Gives Wings to Art



让高雅艺术的藤蔓在大众心间延展

Let the Tendrils of High Art Spread in the Hearts of the Masses

人们用"余音绕梁"形容美好音乐带来的难以忘怀的审美体验。大剧院精心制作的高品质线上演出,则通过云端让艺术飘得更远、更持久。"准时和两岸三地家人一同享受视听盛宴""不愧是中国最高表演殿堂""足不出户,观 赏精彩演出"……国家大剧院线上系列演出经过三年多的持续艺术滴灌,为全球网友与各国艺术精品架起一座桥梁。 People use the phrase "the music still lingers in the air after the end of show" to describe the unforgettable aesthetic experience brought by beautiful music. The high–quality online performances elaborately produced by NCPA are made to float farther and last longer through the cloud. "Enjoying the audio–visual feast on time with family members in the Greater China region (including Hong Kong, Macao and Taiwan)." "Truly the highest performing hall in China." "Watching wonderful performances without leaving home" ... After more than three years of continuous artistic infusion, the NCPA Online Series of Performances has built a bridge between global netizens and art treasures from various countries.

108 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

为让网友更好领略其中魅力,国家大剧院为每场线上演出 精心策划艺术导赏。超过 500 人次的艺术家、主持人、专 家学者汇聚于此,引领网友更好享用中华民族文明成果, 感受世界经典佳作,让艺术与生活相融通。

In order to allow netizens to better appreciate its charm, NCPA elaborately plans artistic guidance for each online performance. More than 500 artists, hosts, experts and scholars have gathered here, leading netizens to better enjoy the achievements of Chinese civilization, experience world classics, and integrate art into ife.

在国家大剧院线上系列演出引领下,各中国院团纷纷涉足 这一领域,极大丰富网友线上演出生活。

Under guidance of the NCPA Online Series of Performances, various Chinese theatre troupes have entered this field on after another, greatly enriching the online performing life of netizens.



中国一中东欧国家创新合作智库论坛

China-CEEC Think Tank Forum on Innovation Cooperation



he 1st China-CEEC Think Tank Forum on Innovation Cooperation 百届中国-中东欧国家创新合作智库诊1

中国一中东欧国家创新合作智库论坛上中国科学技术部张广军副部长发言

Speech by Mr. Zhang Guangjun, Vice Minister of Science and Technology of the People's Republic of China, at the China-CEEC Think Tank Forum on Innovation Cooperation

申报机构 Applying Institution

中国—中东欧国家创新合作研究中心 China-CEEC Innovation Cooperation Research Center

其他参与机构 Other participating organizations

宁波市科学技术局 宁波工程学院 Ningbo Science & Technology Bureau Ningbo University of Technology





(案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

北马其顿、斯洛伐克、克罗地亚、希腊等 8 个国家和地区 8 countries and regions such as North Macedonia, Slovakia, Croatia, Greece

在中国—中东欧国家合作机制建立十周年之际,中国— 中东欧国家创新合作智库论坛以"创新驱动发展 合作 共享未来"为主题,旨在凝聚中国与中东欧国家的智 库力量,加强智库平台间交流互动,发挥智库在中国— 中东欧国家创新合作中的重要推动作用。

On the occasion of the10th anniversary of the establishment of the China– CEEC cooperation mechanism, the China–CEEC Think Tank Forum on Innovation Cooperation, with the theme of "Jointly fostering a shared future through innovation–driven growth", aims to consolidate the strength of think tanks from China and CEE countries, enhance interaction and communication among think tank platforms and strengthen the vital role of think tanks in promoting China–CEEC innovation cooperation.

交流互鉴,共商未来

Exchange for a Better Future

为进一步完善中国与中东欧国家创新合作常态化对接沟通 机制,本次论坛邀请了科技部副部长张广军、北马其顿教 育与科学部国务秘书安妮塔·特佩夫斯卡、浙江省科技厅 厅长高鹰忠、宁波市政府副市长李关定、斯洛伐克经济部 竞争力司司长托马斯·卡库拉为论坛致辞。来自中国、克 罗地亚、希腊、匈牙利、北马其顿、波兰、塞尔维亚、斯 洛伐克、斯洛文尼亚等国家的 13 位专家围绕中国与中东 欧国家创新合作相关话题进行对话交流。中东欧国家驻华 使领馆、中国驻中东欧国家使领馆、政府相关部门、智库 机构和青年科技人才代表通过线上线下方式参会。与会嘉 宾一致表示,中国—中东欧国家合作机制为推动各国创新 开放和全球科技创新合作做出了重要支撑,中东欧各国愿 同中国继续开展广泛而深入的创新合作与交流。

To further improve the regular matchmaking and communication mechanism of innovation cooperation between China and CEE countries, this forum invited Mr. Zhang Guangjun, Vice Minister of Science and Technology of the People's Republic of China, Ms. Aneta Trpevska, State Secretary in the Ministry of Education and Science of Republic of North Macedonia, Mr. Gao Yingzhong, Director General of Zhejiang Provincial Science and Technology Department, Mr. Li Guanding, Vice Mayor of Ningbo Municipal People's Government and Mr. Tomas Kakula, General Director of the Competitiveness Section at the Ministry of Economy of the Slovak Republic to deliver speeches for the forum. 13 experts from countries including China, Croatia, Greece, Hungary, North Macedonia, Poland, Serbia, Slovakia, and Slovenia engaged in dialogues on topics related to innovation cooperation between China and CEE countries. Representatives from embassies and consulates of CEE countries in China, Chinese embassies and consulates in CEE countries, relevant government departments, think tanks and young science and technology talents participated in the online and offline forum. All guests agreed that the China-CEEC cooperation mechanism provides essential support for promoting the opening up of innovation and global cooperation in science, technology, and innovation, and CEE countries are willing to continue to carry out extensive and in-depth innovation cooperation and exchanges with China.



中国一中东欧国家创新合作智库论坛现场听众 Audience at China-CEEC Think Tank Forum on Innovation Cooperation

献真知灼见,谋合作大计

Offer Profound Insights to Seek Cooperation

近年来,中欧关系包括中国与中东欧国家关系面临不少挑战,中美战略竞争、俄乌冲突均增大了中欧合作的难度。 尽管存在分歧,但中国一中东欧国家相互之间必须保持对 话和接触。双方智库亟需加强交流,更好地了解双方的真 实态度和想法,增信释疑,并为解决问题提供思路和建议。 因此,本次论坛邀请了中国社会科学院欧洲研究所所长冯 仲平、克罗地亚萨格勒布创新中心负责人弗兰•塞尼奇、 北马其顿圣基里尔•麦托迪大学教授达姆•迪米特洛夫斯 基、中国一中东欧国家创新合作研究中心负责人费小琛为 论坛做主旨报告。与会专家针对《智库交流对中国—中东 欧合作至关重要》《中国与中东欧国家数字化创新合作的 思考》《中国与中东欧国家绿色能源创新合作展望》以及 《中国与中东欧国家创新合作现状与发展思考》等主题作 演讲,为中国—中东欧国家智库对话架起沟通的桥梁。



Audience at China-CEEC Think Tank Forum on Innovation Cooperation



In recent years, China-EU relations have faced several challenges, including relations between China and CEE countries. China-US strategic competition and the Russia-Ukraine conflict have increased the difficulty of China-EU cooperation. Despite the differences, China and CEE countries should maintain exchange with each other. It's urgent for think tanks on both sides to strengthen exchanges to better understand the real attitudes and thoughts, increase trust dispel doubts, and provide ideas and suggestions for solving problems. Therefore, Feng Zhongping, Director and Researcher of the Institute of European Studies of Chinese Academy of Social Sciences (China), Frane Sesnic, Chief Executive Officer of Zagreb Innovation Centre (Croatia), Dame Dimitrovski, Professor of the Ss. Cyril and Methodius University in Skopje (North Macedonia) and Fei Xiaochen, Head of the China-CEEC Innovation Cooperation Research Center, have been invited to deliver keynote speeches for the forum. Experts delivered speeches on the topics of "Think Tank Exchanges are Crucial to China-CEEC Cooperation," "Reflections on Digital Innovation Cooperation between China and CEECs," "Prospects of Innovation Cooperation in Green Energy between China and CEE countries," and "The Status Quo and Future Prospects of Innovation Cooperation between China and CEE countries." which built a bridge of communication between think tanks from China and CEE countries.

洞察趋势,前瞻未来

Insight into the Trend, Plan for the Future

本次论坛集聚了十几位专家学者开展访谈对话,对中国— 中东欧国家创新合作的现状、困难点、数字化与绿色化的 创新合作、智库网络建设几个关键问题进行的全面、精准 分析。经讨论,与会专家一致认为,中国与中东欧国家创 新合作需求更迫切、中国与中东欧国家创新合作方向更明 确、中国与中东欧国家创新合作路径更清晰。基于此,与 会专家提出要梳理创新合作资源,开展创新合作研究;积 极推进创新要素流动,建设开放创新生态;联合实施研发 项目,共克关键技术难题;强化智库交流合作,加快智库 网络建设。本次论坛吸引到了多个国家的高端智库及专家 学者参会,沟通交流、互学共建,共同为推进中国与中东 欧国家创新合作建言献策、贡献智慧。为各方共同推进中 国—中东欧国家创新合作智库联盟组建、推动中国与中东 欧国家创新合作迈向新征程提供了重要智力支持。

A dozen experts and scholars gathered at the forum. They exchanged their in-depth ideas on several critical issues, including the current situation and difficulties of China-CEEC innovation cooperation, the digitization and green development of innovation cooperation, and the construction of a think tank network. Experts agreed that the demand for China-CEEC innovation cooperation is more urgent, and the direction and the path of the cooperation become clearer. To this end, the experts proposed to sort out innovation cooperation resources, carry out innovation cooperation research, actively promote the flow of innovation factors, build an open innovation ecosystem, work together to implement R&D projects and solve critical technological problems, strengthen the exchange and cooperation of think tanks as well as accelerate the construction of think tank network. The forum attracted high-end think tanks and scholars from many countries to exchange ideas, promote mutual learning, and jointly provide suggestions and contribute wisdom to promote China-CEEC innovation cooperation. They also offer essential intellectual support for jointly establishing the China-CEEC Innovation Cooperation Think Tank Alliance and embarking on a new journey of China-CEEC innovation cooperation.



中国一中东欧国家创新合作智库论坛 高端对话环节 High-end Dialogue Session at the China-CEEC Think Tank Forum on Innovation Cooperation



中国一中东欧国家创新合作智库论坛 高端对话环节嘉宾发言 Guest Speakers at the High-end Dialogue Session of the China-CEEC Think Tank Forum on Innovation Cooperation

InnoCentive 开放创新平台推动多国科技创新与文化交流

InnoCentive Opens Innovation Platforms to Promote Technological Innovation and Cultural Exchange Among Multiple Countries

申报机构 Applying Institution

InnoCentive

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

INNOCENTIVE[®]

加拿大、比利时、中国、德国、美国、西班牙 Canada, Belgium, China, Germany, United States of America, Spain

INNOCENTIVE



InnoCentive 构建寻找科研解决方案的典型模式 InnoCentive builds a typical model for exploration of solutions through scientific research

InnoCentive 由美国制药企业礼来公司的 3 名科学家筹备建立,名称取自"Innovation"(创新)与"Incentive"(激励)两词,依托平台背后强大的专业资源和合作伙伴,现在 InnoCentive 已经成为由数百万科研精英参与的全球性网络。

InnoCentive was founded by three scientists from the American pharmaceutical company – Eli Lilly. The name combines "Innovation" and "Incentive". Supported by professional resources and strong partners, InnoCentive has established a global network of millions of research experts.

InnoCentive: 搭建"答案寻求者" 与"问题解决者"之间的桥梁

InnoCentive: Building connection between "problem seekers" and "problem solvers"

InnoCentive 利用网络智囊团的形式来寻求解决企业在研发过程 中遇到的难题。它倡导的"开放式创新"商业模式和"与顾客 一起创造独特未来"全新管理理念,是全球第一家以激励为基 础促进全球性科学研究的电子商务公司,它主要通过互联网悬 赏寻求科研解决方案。在网站上,全球任何国家领先公司(寻 求者)可以提出其所需解决的科学挑战,而到网站注册的世界 各地科学家(解决者)可以为这些挑战提供答案并有机会赢得 奖金。该网站在全球的"聪明脑袋"和大公司的研发部门之间 架起了一座直接沟通的桥,对科学家和商家都有好处。目前, 已经有来自 200 个国家的近 40 万人注册成为 InnoCentive 的 Solver,其中 60% 以上拥有硕士及以上学位,是各自领域的专 业人士。

InnoCentive has becom a pioneer in the field of open innovation, advocating for a new management concept of "creating a unique future with customers". As the world's first e-commerce company to promote global scientific research through incentives, InnoCentive utilizes the power of crowdsourcing to address complex challenges faced by businesses during their research and development processes. Through its website, companies from around the world (problem seekers) can post scientific challenges they need solutions for, while scientists (problem solvers) registered on the platform can submit their answers and have the opportunity to win cash rewards. This platform serves as a direct communication bridge between "brilliant minds" worldwide and corporate R&D departments, benefiting both scientists and businesses. Currently InnoCentive has over 400,000 registered Solvers from 200 countries, with over 60% holding a master's degrees or higher, making them experts in their respective fields.



Challenges of issues posted on the official website

InnoCentive 的具体模式

The operation mode of InnoCentive

InnoCentive 让公司签约成为"寻求者",在一个保密 的互联网信息交流平台上张贴挑战,其中每项挑战都 包括详细说明和相关要求、截止日期,以及为最佳解 决方案提供的奖金额,而张贴挑战的"寻求者"公司 的名称及相关信息将得到完全保密。世界各地的科学 家都有资格在该网站注册为"解决者"。解决者可访问 和评估挑战,并且通过安全网上递交程序递交解决方案。 在保护知识产权方面,Solver 在参加挑战之前,需要与 InnoCentive 签订"解决者协议",然后获知包括奖金 设置、方案提交时间、审评时间、解决方案具体要求 等具体信息,同时还需签订保密协议与知识产权转让 协议,从而确保 Seeker 的机密信息不被泄露。在解决 方案被提交后,需要获得提供者的短期授权,用于对提交 解决方案的评估,如果方案被选中,提供者将获得奖金, 并将知识产权转移给 Seeker,如果没有被选中,则将知 识产权返回。通过严格的知识产权保护措施,InnoCentive 的知识产权转移成功率超过 99%。

InnoCentive allows companies to sign up as 'seekers' and post challenges on a confidential internet platform, each challenge including detailed discriptions, requirements, deadlines, and prize amounts for the best solution. The name and information of the 'seekers' company posting the challenge are kept completely confidential. Scientists from around the world are eligible to register as 'solvers' on the website. Solvers can access and evaluate the challenges and submit their solutions securely online. In terms of protecting intellectual property, Solvers are required to sign a "Solver Agreement" with InnoCentive before participating in challenge. They then receive specific information including prize settings, submission deadline, evaluation timeline, and specific requirements for the solutions. They also need to sign confidentiality and intellectual property transfer agreements to ensure the confidentiality of the Seeker's information. After the solutions are submitted, short-term licenses are obtained from the provider for evaluating the submitted solutions. If a solution is selected, the provider receives the prize and transfers the intellectual property to the seeker. If not selected, the intellectual property is returned. With strict intellectual property protection measures, InnoCentive has a success rate of 99% in transferring intellectual property.



清洁水成功案例 Successful cases of "clean water"

InnoCentive 的全球影响力

Global Influence of InnoCentive

InnoCentive 是一家让合适的人站在合适的问题面前成为 可能的公司。InnoCentive 将其全球客户的覆盖范围扩大 到全球,形成了50多万个问题解决者网络,拥有2000年 财富榜名单中的客户、当地和国家初创企业到非营利的人 道主义者。对于 InnoCentive 的团队来说,没有什么问题 太大或太小而无法解决。通 InnoCentive 解决的挑战的影 响不容低估。一些成功的挑战案例包括: 它与"人类家园" 的合作伙伴关系使全球获得清洁水的机会增加,改造了高 危房屋的地基以抵御白然灾害,并改造了建筑物以将携带 疟疾的蚊子进入的机会减少 80% 以上。通过 InnoCentive 解决的挑战还为国防人员提供了遏制和摧毁叙利亚有毒化 学武器储存的手段。阿拉斯加威廉王子湾埃克森瓦尔迪兹 石油泄漏 20 年后, 在创新解决方案的帮助下, 清理工作 加快了速度。获胜的解决方案来自一个没有石油或开采经 验的人,但他在建筑行业学到了技术,极大地提高了石油 清理的速度和深度。

InnoCentive is a company that makes it possible for the right people to stand in front of the right problems. With its global reach, InnoCentive has formed a network of over 500000 problem solvers, ranging from Fortune 2000 clients to local and national startups to non-profit humanitarians. For InnoCentive's team, no problem is too big or too small to tackle. The impact of the challenges solved through InnoCentive cannot be underestimated. Some successful challenge cases include increasing access to clean water alobally through partnership with "Habitat for Humanity", retrofitting highrisk homes to withstand natural disasters, and reducing the chance of malaria-carrying mosquitoes entering buildings by over 80%. Challenges solved through InnoCentive have also provided means to contain and destroy stored toxic chemical weapons in Syria for defense personnel. Twenty years after the Exxon Valdez oil spill in Prince William Sound, Alaska, cleanup efforts were accelerated with the help of innovative solutions. The winning solution came from someone with no experience in oil or mining but had technical knowledge from the construction industry, greatly improving the speed and depth of oil cleaning.

"网络平台 + 数字资源" 成为推广中国农业职业教育和优秀传统文化新模式

"Network Platform + Digital Resources" Has Become a New Model for Exporting China's Experience in Agricultural Science and Education and Disseminating the Excellent Traditional Culture



11回初気子文句文加互張子文配子回目忌 Contributing Chinese Wisdom in the International Exchange and Mutual Learning of Digital Civilization

运用职业教育数字化发展成果,依托国家智慧教育公 共服务平台,采用"网络平台+数字资源"模式向"一 带一路"国家输出优质农业职业教育教师、开放课程 和农业信息资源,共享农业科技创新成果,传播中华 优秀传统文化。 Utilizing the achievements in digitalization of vocational education, relying on the public service platform of national smart education and adopting the model of "Network Platform + Digital Resources," top teaching resources in agricultural vocational education are exported to the "Belt and Road" countries, openly sharing courses and agricultural information resources, mutually sharing the achievements in agricultural science and technology innovation, and disseminating the excellent traditional Chinese culture.

数字教育为 "一带一路"国际农业合作注入新动力

Digital education has injected new impetus into the international agricultural cooperation among the Belt and Road countries

自 2017 年以来, 苏州农业职业技术学院面向刚果(布)、 印度尼西亚、马来西亚、泰国等"一带一路"沿线国家积 极开展"中文+职业技能"培训项目, 带动农业新品种、 新技术、新模式推广与应用, 在促进当地农民增产致富方 面取得显著成效。2021 年在刚果(布)黑角市政府和苏 州市政府的支持下建设了中刚地方农业远程科教网络教学 公益平台。该平台集农业职业教育成果展示、农耕文化与 农业技术推广为一体, 依托国家智慧教育公共服务平台课 程资源, 通过 5G 网络、实景模拟、音频讲解、AR、VR 等多种技术手段, 打破时空和地域限制,聚焦中国在数字 资源农业成果展示、技术技能培训援助、线上案例研究交 流, 启发更多"一带一路"国家以中国数字教育资源驱动 当地的农业转型升级。



2021 年中刚地方农业远程科教服务中心成立 In 2021, the China-Congo local agriculture remote science and education service center was built



通过数字教育资源共同促进农业国际合作与发展 International agriculture cooperation and development were jointly promoted through digital educational resources

Since 2017, Suzhou Polytechnic Institute of Agriculture has actively carried out the "Chinese + Vocational Skills" training program for the "Belt and Road" countries such as Congo, Indonesia, Malaysia, and Thailand, actuating the promotion and application of new agricultural varieties, technologies and models, and making remarkable achievements in upgrading the production and wealth of local farmers. In 2021, the China-Congo local agriculture remote science and education network teaching platform was built under the sponsorship of the Municipality of Pointe-Noire, Brazzaville Congo and Suzhou Municipality, integrating the exhibition of achievements in agricultural vocational education and the promotion of both the farming culture and the agricultural technology. Relying the course resources on the public service platform of national smart education and through 5G network, real scene simulation, audio explanation, AR, VR, and other technical means, the platform breaks through the restrictions in time, space, and territory, focusing on exhibition of China's agricultural achievements in form of digital resources, offering assistance and training in technology and technical skills, conducting online case studies and exchanges, and enlightening more "Belt and Road" countries to drive the transformation and upgrading of their local agriculture with China's digital education resources.

数字化转型激发职业教育新动能

Digital transformation creates a new momentum in vocational education

学校持续推进教育数字化转型, 鼓励教师 运用国家职业教育智慧教育平台资源开展 线上线下教学、异地同步教学和沉浸式虚 拟仿真教学。学校主持建设了"江南园林 文化及造园技艺传承与创新"、"畜禽智 能化养殖"2个国家级教学资源库,开发了 17 门课程双语数字化教学资源。以苏州园 林为地域特色,将中国先进的农业生产技 术、优秀的传统农耕文化、经典的古典园 林造园技艺等元素融入课程资源,利用数 字化手段打造集自主选课、智能配课、资 源整合、**首播**互动、评价反馈等功能干一 体的"云课堂"平台,面向刚果(布)、 印度尼西亚、马来西亚、泰国等"一带一路" 沿线国家推广新兴技术、优质品种及职业 教育资源。通过促进职业教育教学资源开 放共享,不断扩大农业国际化人才培养、 国际交流合作、对外输出中国农业职教经 验的数字化教育受益人群。



The school successively promotes the digital transformation of education and encourages teaching faculties to exploit the resources of the national smart platform of vocational education to carry out online and offline lectures, remote synchronous teaching, and immersive virtual simulation training. The school has presided over the construction of two national teaching resource banks, including "Inheritance and Innovation of Jiangnan Garden Culture and Gardening Techniques" and "Intelligent Breeding of Livestock and Poultries," and has developed the bilingual digital teaching resources for 17 courses. With the regional characteristics of Suzhou Gardens, it integrates China's advanced agricultural production technology, excellent traditional farming culture, classical gardening techniques of ancient Chinese gardens and other elements into the course resources, and makes good use of digital means in building a "cloud classroom" platform, consolidating the functions of independent course selection, intelligent course allocation, resource integration, live interaction, evaluation and feedback, and thus disseminating the newly emerging technologies, high–quality varieties and vocational education resources to the "Belt and Road" countries, such as Congo, Indonesia, Malaysia and Thailand. By promoting the opening and sharing of vocational education and teaching resources, we will continue to accelerate the cultivation of international agricultural talents, deepen international exchanges and cooperation, and export China's agricultural vocational education. Experience and expand the related beneficiaries of digital education.

以开放的姿态与世界共同构建和分享中国教 育数字化转型成果

With an opening mindset, we will jointly construct and share the digital transformation achievements of China's education with the world

学校积极参与推进苏州与刚果(布)黑角市的友好城市共建,利用国家智慧教育公共服务平台,建设虚拟仿真实训课程和数字化专业教学资源库,开展工单式远程农业技术培训,共同发布技术标准43项。开设农业技术骨干培训班,年培训刚果(布)当地政府官员、技术人员以及职业农民200余人次;向当地数十家农业企业和众多农户提供田间"云诊断"、线上"云培训"、农技"云指导",数字化赋能当地农民增产致富。



The school actively participates in and promotes the joint construction of sister cities between Suzhou and Noire, Congo (Brazzaville), utilizes the national smart education public service platform, builds the virtual simulation training courses and the digital professional teaching resource bank, carries out the job–order remote agricultural technology training, and jointly publishes 43 technical standards. Agricultural technology backbone training courses have been launched, training more than 200 local government officials, technicians, and professional farmers in Congo (Brazzaville) every year. It has provided dozens of local agricultural enterprises and large numbers of farmers with "cloud diagnosis," online "cloud training," and "cloud guidance" on agricultural technology, and digitally empowered local farmers to increase production and become rich.



学校以"网络平台+数字资源"模式面 向印度尼西亚、马来西亚、泰国等国培 训高素质技术技能人才500余人次,形 成一批富有"苏农"特色的数字化双语 培训资源,开放共享给土耳其、老挝、 越南、柬埔寨等10个"一带一路"沿 线国家。

With the "network platform + digital resources" model, the school has trained more than 500 high– quality technical talents for the benefit of Indonesia, Malaysia, Thailand, and other countries, forming a batch of digital bilingual training resources with "Sunong" features, which are opened to and shared with ten "Belt and Road" countries such as Türkiye, Laos, Vietnam, Cambodia.

以"文"化人, 数字技术让海外新生代感受中华文化魅力

Using "culture" to influence people --- digital technology profoundly impresses the overseas new generations with the charm of Chinese culture

苏州农业职业技术学院多次代表国家赴海外建设中国园 林,2016"中国华园"获得世界园艺博览会"国际园艺生 产者协会大奖"、2022年"中国竹园"获得荷兰世园会 组委会室外展园铜奖和最佳体验奖。运用中西合璧的设计 手法,传承中国传统园林的经典造园技艺,融入源远流长 的中国花文化和园林文化,突出中国特色花卉植物,彰显 绿色发展理念,散播绿色的希望。融合数字孪生、人工智 能现代科技元素,以中国式浪漫深度展示中国文化、生动 讲述中国故事,贡献中国方案。

Suzhou Polytechnic Institute of Agriculture has represented the country in constructing Chinese gardens many times, with the "China Huayuan Garden" winning the "International Horticultural Producers Association Award" of the World Horticultural Expo in 2016 and the "China Bamboo Garden" obtaining the Outdoor Exhibition Garden Bronze Award and the Best Experience Award of the organizing committee of the Netherlands World Horticultural Expo. Adopting the design technique of combining Chinese and Western elements, it inherits the classical gardening techniques of traditional Chinese gardens, integrates the time–honored Chinese flower culture and garden culture, highlights the Chinese characteristics of flowers and plants, manifests the concept of green development, and spreads the hope of green. Digital and modern science and technology elements of artificial intelligence are integrated, showcasing Chinese stories, and contributing to Chinese solutions.



"中国竹园" 绽放 2022 荷兰世园会 The "China Bamboo Garden" blooms at the 2022 Dutch Expo



中国门西里和机器八为)大研答 生动讲述中国故事 AI robots in "China Bamboo Garden" vividly tell tourists the Chinese stories

"走读中国"中外网络媒体交流项目

"TRAVELOGUE OF CHINA" International Media Communication Activity



"走读中国"启动仪式外国记者和嘉宾合影 "TRAVELOGUE OF CHINA" Launch Ceremony Group Photo of Foreign Reporters and Guests

申报机构 Applying Institution

I示I求网 Huangiu.com



其他参与机构 Other participating organizations

中国公共外交协会(联合主办)、山东省互 联网信息办公室、青岛市互联网信息办公室、 中共潍坊市委宣传部、中共济宁市委宣传部、 上合示范区管委会、青岛新闻网

China Public Diplomacy Association (co-host), Shandong Province Internet Information Office, Qingdao Internet Information Office, CPC Weifang Municipal Party Committee Publicity Department, CPC Jining Municipal Party Committee Publicity Department, Administrative Committee of SCODA (China–SCO Local Economic and Trade Cooperation Demonstration Area), Qingdao News



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation 》

阿富汗、柬埔寨、孟加拉国、中国、 印度尼西亚等 19 个国家和地区

19 countries and regions such as Afghanistan, Cambodia, Bangladesh, China, Indonesia

122 网上文化交流 打造网上文化交流共享平台,促进交流互鉴

国之交在于民相亲,民相亲在于心相通,媒体在其中 扮演着重要的"链接"作用。"走读中国"邀请外国 记者走进中国各个城市,了解当地的经济发展和文化 传承,切身感受中国城市高质量发展脉动,向本国读 者讲述真实中国。 The relation between countries lies in its people, and the relation between people in the shared common concepts, during which media plays a vital "linking" role. "TRAVELOGUE OF CHINA" invites foreign reporters to visit different Chinese cities to learn about the local economic development and cultural inheritance, experience the high–quality development of Chinese cities, and unveil authentic China to their readers.

对标多边外交重点设计行程,18 国记者深 度感知中国发展

Reporters from 18 Countries Learn about the Development of China along the Route Designed for Key Multilateral Diplomacy

5月22日至5月26日,来自哈萨克斯坦、印度尼西亚、 马来西亚等18个国家的约30名媒体记者走进青岛、潍坊、 济宁三个中国城市,感受中国农业、中国制造和中国文化 的高质量发展。

From May 22 to 26, nearly 30 reporters from 18 countries, including Kazakhstan, Indonesia, and Malaysia, visited Qingdao, Weifang, and Jining to gain a keen understanding of the high–quality development of China's agriculture, manufacturing, and culture.

本次参与交流活动的记者中,部分刚刚结束"中国—中亚 峰会"采访行程,而峰会是建交31年来,六国元首首次 以实体形式举办峰会。峰会期间中国同中亚五国达成系列 合作共识,其中包括"推动落实中国-中亚产业与投资合 作青岛倡议"。活动特意设置青岛行程,考察上合示范区 成果、观摩啤酒制造工业、"试乘"最新款智能列车,请 刚刚参与峰会的外媒记者切实体验落地实践,并通过参与 交流记者的报道,让相关国家民众深切感知多边务实合作 的蓬勃生命力。 Some reporters had just finished their interview at the China–Central Asia Summit, the first summit held offline by the heads of six countries over 31 years since the establishment of diplomatic relations. During the Summit, China and five countries in Central Asia reached a consensus on a series of cooperation, including the "Qingdao Initiative Promoting the Industrial and Investment Cooperation between China and Central Asia." The event especially included a visit to Qingdao to allow foreign reporters who just participated in the Summit to inspect the practices of the SCODA results, visit the beer manufacturing industrial base, and "take a trial ride" on the latest smart train. In addition, their reports are expected to convey the energetic vitality of multi–lateral practical cooperation to the public in relevant countries.

乌兹别克斯坦记者 试乘最新款复兴号高铁 并进行采访

A reporter from Uzbekistan experiences the latest Fuxing HSR and makes an interview





外国记者走进尼山圣境 感受孔子文化 Foreign reporters visit Nishan Mounta to learn about the culture of Confusion

规避固有印象城市设置交流行程, 趣味体验 引发共鸣

Circumventing Stereotypical City–Setting and Exchange Itineraries. Novel Design of Route Brings Novel Experiences

此次活动选择中国文化的重要发祥地——山东省,邀请记 者们深入感知不同城市的魅力。交流日程对标中国与记者 所在国务实合作较为密集的领域。以农业议题为例,活动 邀请记者们走进"蔬菜集装箱"选种育苗、体验菜博会, 与专家、农户面对面,深入基层体会"从一颗种子"到"一 桌好饭"全流程。此外,走访中还设置"从一颗种子看中 国农业现代化发展"主题座谈,探讨中国特色合作社、农 业技术、农民收入等话题,引发多国记者对中国技术、中 国助农政策的赞叹,有记者现场呼吁自己国家效仿。 This event invited reporters to Shandong Province, the significant cradle of Chinese culture, to experience the charm of different cities. Exchange activities mainly focused on areas where China and the countries of reporters had practical cooperation. Take agriculture as an example; the event invited reporters to the "vegetable container" to select seeds, raise seedlings, and experience the vegetable expo. In addition, the reporters also conducted face–to–face interviews with experts and farmers and learned about the entire process from "seed" to "food" at the grassroots. Besides, a special meeting themed "View China's Agricultural Modernization from a Seed," was held during the visit to explore diverse topics, including China's featured cooperatives, agricultural technology, and farmers' incomes. Foreign reporters all spoke highly of China's technology and agricultural policies; some even called on their countries to learn from China on the spot.

活动期间,结合各国互联网中与中国文化相关热点话题,穿插体验胶州秧歌、冰糖葫芦制作、樱桃采摘、放飞传统风筝等环节, 还在高铁行程中设计"高铁上比赛竖硬币"挑战赛,通过趣味方式邀请外媒记者体验中国高铁的性能和中国制造的质量, 在趣味中了解真实中国。

During the event, given the hot topics related to Chinese culture on other countries' Internet, special activities were arranged, including experiencing the Jiaozhou Yongko Dance, making Sugar–coated Haws, picking cherries, and flying traditional kites. Furthermore, a "Coin–Erecting" challenge took place on HSR, where foreign reporters were invited to experience the performance of China's HSR and the quality of Chinese manufacture, which allowed them to learn about the real China in a leisured manner.



外国记者学习胶州秧歌 Foreign reporters learn about the Jiaozhou Yongko Dance



外国记者团 观摩冰糖葫芦制作 Foreign reporter delegation watches the making of Sugar-coated Haws

多国记者期待长效沟通与联系, 活动撬动务实合作契机

A Much–anticipated Long Effective Mechanism for Communication and Exchange to be Established with Opportunities for Practical Cooperation

据统计,本活动在全球范围形成传播 7000 余万人覆盖, 参与交流活动的外国记者累计通过所在媒体和社交媒体渠 道展示所见所闻累计约 150 篇次,并在后续问卷中表达希 望再次参加活动,走进中国其他城市,了解中国更多不同 的领域,并建议增加活动时长,有更多时间进行深入报道, 同时希望与环球网建立长期媒体联系。

According to relevant statistics, this event reached over 70 million people worldwide. Approximately 150 articles were published by participating foreign reporters via their entities and social media channels to express what they have seen and heard. In subsequent questionnaires, these reporters also conveyed their wishes to participate in the event again, visit other Chinese cities, and learn about different fields of China. They also suggested that the event should last longer to allow more time for them to conduct in–depth reporting and expressed their wishes to establish a long–term media contact with Huanqiu.com.

除媒体间交流合作外,本次活动为中外务实合作架起了沟 通桥梁。尼泊尔记者推荐本国机构前往潍坊寿光就蔬菜标 准与蔬菜种植展开学习交流。哈萨克斯坦记者在东方影都 现场介绍哈萨克斯坦导演和影视基地合作。这既是中外交 互式采访互动的成功案例,也是对外讲述中国故事形象、 生动的示范。

In addition to the exchanges and cooperation between media, this event set up a communication bridge for practical cooperation between China and other countries. For instance, Nepal reporters recommended their authorities go to Shouguang of Weifang to learn about the standards and cultivation of vegetables. Kazakhstan reporters introduced Kazakhstan directors to cooperate with Qingdao Oriental Movie Metropolis at its site. These serve as successful cases for interactive interviews between China and foreign countries and vivid demonstrations of telling Chinese stories to the world.



哈萨克斯坦哈巴尔—24 电视台现场直播 Live broadcast by Khabar 24 of Kazakhstan

Hi tech agriculture project in Weifang benefits local farmers, boosts market supply in China





A supermarket in the Danha standard facility vegetable faming demonstration park project. under the "One Village, One operated by Shouquang Benduct" statement of the Strength American

> all the containers can be had el role model in a harmonassi all can be containers can be ha merval at any time, regardless of geographical or climatic and the containers of geographical or climatic containers.



s jointly prested by shandong cyetable s, f.d. wirde the comprising

market supply in China



Atomato greenhouse at the Darne standard to farming demonstration park project. made of new materials, seen, greenhouses with sliding Each pamods and performated solar designed to

> visitors and featured reader experts agricultural systems, a light getable about those vegetable decorration Centre, nimulated sounds of reaturpantry's and statuce of animals an immediate demonstration of the status of the s

> > foreign varieties of vegetables lasse been exhibited at the fair.
> > This year, over 400 y new varieties, 100 new neckhologies and some 80 er advanced planting models

builtnesses from more than 50 countries and regions to as well as 32 Chrinese provinces, manicipalities and autonomous regions. Through this revealing trip

(1) was we learnt a great deal about size of modern farming and the use lant and of advanced technologies , which in agriculture in Weifang, we ever Shandong province.

老挝《万象时报》整版报道潍坊走访 Vientiane Times of Laos covers the visit to Weifang on a full-page

以色列 INNONATION 创新国度跨境平台

Israel INNONATION Cross Border Platform



INNONATION 创新国度国际合作版图 Domains of the INNONATION International cooperation covers

申报机构 Applying Institution

INNONATION(创新国度)

INNONATION

〈案例涉及的国家和地区 、Countries and Regions Covered or Involved in the Implementation

中国、以色列 China, Israel

INNONATION(创新国度)是一个主要面向中国 – 以 色列创新与投资合作的跨境平台,通过其开发的一系 列工具、方法论和优质内容来实现跨国界的价值创造, 促成中国和以色列的商业对接机会,构建全球创新生 态。 INNONATION is a cross-border platform primarily focused on innovation and investment cooperation between China and Israel. It aims to create value across national borders by utilizing a series of tools, methodologies, and high-quality content, facilitating business connections between China and Israel, and building a global innovation ecosystem.

INNONATION(创新国度)的 跨国境平台建设

Construction of border platform by INNONATION

INNONATION (创新国度)是以色列英飞尼迪集团创立的。 英飞尼迪集团 (Infinity Group) 成立于 1993 年,致力于在跨 境投资领域加强以色列创新与中国市场之间的联系。在英 飞尼迪取得成功的背景下,团队开始创立 INNONATION(创 新国度),源植以色列,在以色列特拉维夫设有办公室, 拥有以色列强大的商业网络,紧密联系以色列各大名校以 及研发机构旨在通过共同建立创新平台,将不同的创新文 化紧密联系在一起,通过开发一系列工具、方法论和优质 有趣的内容来实现跨国界的价值创造。平台汇集了中以两 国人民智慧和资本,已成为中以两国经贸合作的重要桥梁, 并依据此平台建设,拓展国际科技交流合作。

INNONATION was founded by the Infinity Group of Israel. Infinity Group, established in 1993, is dedicated to strengthening the connection between Israeli innovational product and the Chinese market in the field of cross-border investment. The project of INNONATION (Innovation Nation) was built on the success of Infinity Group. Rooted in Israel, with an office in Tel Aviv, INNONATION has a strong business network in Israel. It aims to bring together different innovation clutures by establisi a collaborative innovation platform and developing a series of tools, methodology, and high-quality and interesting content to creat valure across national borders. The platform gathers the wisdom and capital both China and Israel, and has become an important bridge for economic and trade cooperation between the two countries. Based on this platform, it espands international scientific and technological exchanges and cooperation.



INNONATION 跨境合作方法论

Methodology applied by INNONATION for Cross border Cooperation

INNONATION 的核心优势是一套行之有效的、用以全面提 升跨境合作的方法论。该方法论已经植根于 INNONATION 的日常业务,并由此创造了一系列的实用工具和资源, 通过资源整合应用大大缩短市场进入的时间,提高成 功几率并获取高标准成果。Powerhouse 动力空间是 INNONATION 创新生态系统的重要元素,旨在构建跨境 生态聚合体系,聚集跨境业务方面的各类专业人士和专业 机构,是跨境商业活动的驱动器。

128 网上文化交流 打造网上文化交流共享平台,促进交流互鉴



Powerhouse 动力空间示意图 Diagram of Powerhouse

INNONATION' s core advantage lies in its effective methodology for enhancing cross–border cooperation. This methodology has been deeply rooting in INNONATION' s daily operations and has led to the creation of practical tools and resources. By integrating and applying these resources, INNONATION significantly shortens the time required to enter the market, increases the chances of success, and achieves high–standard results. Powerhouse, a dynamic space, is an important element of INNONATION' s innovation ecosystem. It aims to build a cross–border ecosystem aggregation system, gathering various professionals and institutions in cross–border business activities, and serving as a driver for cross–border commercial activities.

INNONATION 创造了一个鼓励私人企业与政府部门合作 的空间,让商业领袖与政府代表在此聚集。每一家动力 空间都拥有线下办公场所,入驻动力空间的机构将享受 INNONATION 提供的全球商业数据库使用、行政管理服 务、法律咨询、活动策划与执行、PR 及市场宣传、商务 关系网络、路演及 B2B、跨境商务方法论培训等多方面 的服务。

INNONATION has created a space that encourages collaboration between private enterprises and government departments, bring together business leaders and government representatives. Each Powerhouse space has physical office locations, and the organizations the join the Powerhouse will benefit from INNONATION's global business database, administrative management services, legal consulting, event planning and execution, PR and marketing, business relationship networks, roadshows and B2B activities, as well as training in cross-border business methodologies.

INNONATION 的跨境商务合作

INNONATION's Cooperation on Cross border Business

INNONATION 搭建的 Smart Match 跨境智能匹配数据分析 平台,也称 Innovation AI,是 INNONATION 的技术平台及 技术引擎,助力 INNONATION 的各个运营实体,并开放 给所有对跨境投资、跨境商业合作有需求的用户。Smart Match 进行跨境商务合作、引进海外优质科技项目主要包 含三个方面:搜寻与挖掘、智能推荐、商务对接。Smart Match 利用大数据引擎,实时更新多维度的公司信息和商 业讯息,以其独有的智能分析匹配逻辑,帮助用户快速了 解相关市场、深度挖掘跨境投资和商业机会,发现潜在海 外项目。平台同时匹配有中国、以色列及其他国家的线下 专业项目团队,能够实施追踪项目进展,助力海外优质科 技企业落地。



Smart Match 智能跨境平台 Smart Match Intelligent cross-border platform

The Smart Match cross-border intelligent matching and data analysis platform, also known as Innovation AI, built by INNONATION, is the technological platform and engine the supports INNONATION' s, various operational entities and is open to all users with a need for cross-border investment and business cooperation. Smart Match facilitates cross-border business cooperation and introduction of high-guality overseas technology projects through three main aspects: search and exploration, intelligent recommendations, and business matchmaking. Smart Match utilizes a big data engine to continuously update multi-dimensional company information and business intelligence. With its unique intelligent analysis and matching logic, it helps users quickly understand relevant markets, deeply explore cross-border investment and business opportunities, and discover potential overseas projects. The platform also facilitates the matching of offline professional project teams from China, Israel, and other countries, allowing for the seamless execution and monitoring of project progress, thereby facilitating the successful establishment of high-quality overseas technology enterprises.



全球互通教学平台实例: 创新与技术商业化专业人士培训(佐治亚理工学院)

Global Connectivity Teaching Platform Example: Innovation and Technology Commercialization Professional Training (Georgia Institute of Technology)



创新与技术商业化专业人士培训,简称 ITCP 培 训,以培养一批国际化视野、有能力从事科技成 果转化的专业人士为宗旨,通过一整套完善的知 识体系与评估体系,使用数字化平台进行授课, 形成区域乃至全球范围内的创新力量。

Training (abbreviated as ITCP Training) aims to cultivate a group of professionals with an international perspective and the ability to engage in technology transfer. Through a comprehensive knowledge system and evaluation systems, using digital platforms

创新与技术商业化专业人士培训,全面了解 技术转移全链条服务过程,培养区域乃至全 球范围内的创新力量

ITCP training aims to develop a comprehensive understanding of the entire process of thechnology transfer and cultivate innovation forces at the regional and global levels

创新与技术商业化专业人士 (Innovation and Technology Commercialization Professional) 培训, 简称 ITCP 培训, 是以培养一批具有国际化视野并且有能力从事技术转移与 科技成果转化的专业人士为宗旨,通过一整套完善的知识 体系与评估体系,使参训学员全面了解技术转移全链条服 务过程,赋能其深度参与创新生态体系策略规划,提升其 作为技术转移成果转化从业人员应该具备的市场分析、职 业判断以及项目管理等相关专业能力,进而提升所在机构 创新与技术商业化的质量与效益、形成区域乃至全球范围 内的创新力量。培训以全球互通的互联网平台为授课场地, 联络全球技术商业化人才,统一授课,为技术转移培养国 际化视野的专业人才。ITCP 培训致力干帮助对国际技术 转移行业感兴趣的人员,更全面的了解技术转移全链条服 务体系,深度参与创新生态体系策略规划,提升技术转移 成果转化从业人员应具备的市场分析、职业判断以及项目 管理等能力。



ITCP 课程内容展示 ITCP course content presentation

ITCP training, short for Innovation and Technology Commercialization Professional training, aims to cultivate professionals with an international perspective and the ability to engage in technology transfer and commercialization of scientific and technological achievement. Through a comprehensive knowledge system and evaluation systems, it enable trainees to have a comprehensive understanding of the entire process of technology transfer, empowering them to participate deeply in the strategic planning of the innovation ecosystem. It enhances their professional capabilities in market analysis, professional judgment, and project management, which are essential for professionals in technology transfer and commercialization. This, in turn, improves the quality and effectiveness of innovation and technology commercialization in their organizations and forms a force of innovation at the regional and even global level. The training takes place on a globally connected internet platform, connecting global technology commercialization talents and providing unified teaching to cultivate professionals with an international perspective in technology transfer. ITCP training is committed to helping individuals interested in the international technology transfer industry gain a more comprehensive understanding of the entire process of technology transfer, enabling them to participate deeply in the strategic planning of the innovation ecosystem and enhancing their abilities in market analysis, professional judgment, and project management as professionals in technology transfer and commercialization.

创新与技术商业化专业人士培训,多元化教学培养学员建立知识体系与具备实际操作能力

Training for professionals in Innovation and Technology Commercialization aims to cultivate a diverse learning environment that enables students to establish a knowledge system and develop practical skills

创新与技术商业化课程的创新之处在于结合了线下和在线教学的方式,丰富多样的教学方法,以及与孵化器和投资机构的 深度合作。通过这些创新举措,创业者能够获得更贴近实际的学习体验,同时可以直接与投资机构对接,提高项目的商业 化潜力和成功率。

The innovation in the curriculum of Innovation and Technology Commercialization lies in the combination of offline and online teaching methods, diverse teaching approaches, and deep collaboration with incubators and investment institutions. Through these innovative measures, entrepreneurs can gain a more practical learning experience and directly connect with investment institutions, thereby enhancing the commercial potential and success rate of their projects.

创新与技术商业化培训应注重实践操作,通过真实的案例 分析和模拟演练,让学员亲身参与到技术商业化的过程中, 提升他们的实际操作和解决问题的能力。创新与技术商业 化培训可以与科研机构、企业孵化器、投资机构等进行合 作,充分利用各方资源,提供更广泛的学习机会和实践平 台。通过合作,可以为学员提供专业导师指导、项目孵化 支持、创业资金等,加速技术商业化过程。 Training in innovation and technology commercialization should focus on practical operations. By analyzing real case studies and conducting simulated exercises, students can actively participate in the process of technology commercialization, thereby improving their practical skills and problem–solving abilities. Collaboration with research institutions, corporate incubators, and investment institutions can provide a wider range of learning opportunities and practical platforms. Through such collaboration, professional mentors can provide guidance, project incubation support, and entrepreneurial funding to accelerate the process of technology commercialization for students.



创新与技术商业化专业人士培训,全球互通 的线上教学平台实践

Professional training for Innovation and Technology Commercialization: Practicing a globally interconnected online teaching platform

开放共享的学习平台: 互联网的发展为信息的开放和共享 提供了广阔的平台, 创新与技术商业化培训可以利用互联 网平台建立开放共享的学习资源库, 为更多的人提供学习 机会。通过在线课程、研讨会等形式, 将优质的培训内容 向全球范围内的学员分享, 促进知识的传播和交流。

An open and shared learning platform: The development of the Internet provides a broad platform for the open and shared access to information. Training programs for innovation and technology commercialization training can utilize the Internet platform to establish an open and shared learning resource library, providing learning opportunities for more people. Through online courses, seminars, and other forms, high–quality training content can be shared with students worldwide, promoting the dissemination and exchange of knowledge.

跨越地域限制的合作机制: 互联网使得地理距离不再是合作的障碍,创新与技术商业化培训可以借助互联网建立跨国合作机制。通过联合各国的科研机构、企业孵化器和投资机构,共同开展培训计划,为创业者提供跨国界的创新资源和市场拓展机会,促进互联网命运共同体的形成。

Collaborative mechanisms that transcend geographical limitations: The Internet eliminates geographic distance as a barrier to collaboration. Training programs for innovation and technology commercialization can leverage the Internet to establish cross-border cooperation mechanisms. By collaborating with research institutions, business incubators, and investment organizations from different countries, joint training programs can be conducted, providing entrepreneurs with cross-border access to innovative resources and market expansion opportunities, and promoting the formation of an Internet community with shared future.



ITCP 数字化平台展示 ITCP Digital platform display








算网融合 联通世界 赋能全球数字经济创新发展

Computing and Network Convergence Connecting the World Empower the Innovative Development of the Global Digital Economy



互联网质量监测系统 Internet quality monitoring system

申报机构 Applying Institution

中国联通国际有限公司

China Unicom Global Limited



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

菲律宾、韩国、柬埔寨、 马来西亚等9个国家和地区

9 countries and regions such as Philippines, Republic of Korea, Cambodia, Malaysia

2021 年中国联通规划在全球部署 边缘云节点,逐步实现各 POP 节 点的云化,赋能数字化转型。同年 计划在全球各 CUII 节点部署探针 系统用于监测网络质量。基于边缘 云能力和 CUII 探针功能进行有机 的组合,提供端到端的增值服务。

China Unicom plans to deploy edge cloud nodes globally starting in 2021, gradually realizing the cloud capability of each POP node and empowering digital transformation. The same year, probe systems were designed to be deployed at CUII nodes worldwide for network quality monitoring. By integrating edge cloud capabilities and CUII probe functions, we provide end-to-end value-added services and empower the development of the digital economy.

全球布局,赋能资源效能提升

Global layout, enabling resource efficiency improvement

边缘云项目初期规划建设中国台北、巴基斯坦卡拉奇、泰 国曼谷、菲律宾马尼拉、马来西亚吉隆坡、日本东京、德 国法兰克福、柬埔寨金边、荷兰阿姆斯特丹、印度尼西亚 雅加达、越南胡志明市、越南河内、韩国首尔、缅甸仰光、 南非约翰内斯堡这15个节点。同时利用前期建设的香港、 美国洛杉矶、美国纽约、新加坡、英国伦敦节点云资源进 行改造优化,在全球范围内,统一边缘云技术架构,实现 统一管理、统一维护、统一运营的一体化资源能力。

The edge cloud project was initially deployed in 15 countries or regions including Taipei, China; Karachi, Pakistan; Bangkok, Thailand; Manila, Philippines; Kuala Lumpur, Malaysia; Tokyo, Japan; Frankfurt, Germany; Phnom Penh, Cambodia; Amsterdam, Netherlands; Jakarta, Indonesia; Ho Chi Minh City, Vietnam; Hanoi, Vietnam; Seoul, South Korea; Yangon, Myanmar; and Johannesburg, South Africa. Also, the cloud resources of the nodes in Hong Kong, Los Angeles, New York, Singapore, and London are transformed and optimized to unify the technical architecture of edge cloud on a global scale and achieve integrated scheduling of network architecture, technology stack, management and operation, and resource efficiency improvement to achieve optimal TCO.



实时监测,赋能用户感知

Real-time monitoring, empowering user perception

CUII 探针系统提供基于全 IP、端到端、真实访问与仿真访 问、用户感知评价服务方面的增值类服务,支持单页面网 页监测、DNS 监测、PING 监测、Trace 监测、WEB 全页 面浏览监测服务,视频业务监测。连用遍布全球的监测点, 实时监测网络质量、网站性能、可用性等用户体验指标。 通过强大的报表及专业咨询服务,让用户准确掌握网站的 运行状况。

CUII probe system provides value-added services based on all-IP, endto-end, actual and simulated access, and user-perception evaluation services, and it supports single-page webpage monitoring, DNS monitoring, PING monitoring, Trace monitoring, WEB full-page browsing monitoring, and video service monitoring. It utilizes the edge cloud capability to deploy monitoring points worldwide to monitor user experience metrics such as network quality, website performance, and availability. Also, users can accurately grasp the operational status of the website through powerful reports and professional consulting services.

结合边缘云底座能力,以及其与互联网、CUII 网络(AS9929) 互联的特性,天然具备部署探针功能的基础条件。CUII 探 针系统部署后,各项指标与参数均与规划方案一致。

Given the capabilities of the edge cloud base and its interconnection with the Internet and CUII network (AS9929), it naturally has the conditions for deploying the probe function. After the CUII probe system was deployed, all indicators and parameters were consistent with the planning scheme.

降本增效, 赋能数字化转型

Reduce costs and increase efficiency, enabling digital transformation

基于边缘云能力,已完成菲律宾马尼拉、韩国首尔、柬埔 寨金边、马来西亚吉隆坡、日本东京、中国台北、越南河内、 缅甸仰光、印尼雅加达这9个节点的探针应用部署,其他 节点正在陆续部署中。目前已实现全球300+个节点打通, 提供全球的监测服务。探针系统在边缘云上的成功部署, 对后期其他应用的部署带来了深刻的借鉴和参考意义。目 前已计划在边缘云上的剩余资源中继续部署 looking glass 系统和其他内外部应用,有效避免为一个应用部署一套资 源的浪费情况,实现资源复用最大化;在管理和运营层面 也实现了统一。

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CUII-MARITIN	0.00	0.00	0.00	0.00		0.00	0.00		0.00

Real-time monitoring of network quality



Based on edge cloud capabilities, probe application deployment has been completed in nine nodes: Manila in the Philippines, Seoul in South Korea, Phnom Penh in Cambodia, Kuala Lumpur in Malaysia, Tokyo in Japan, Taipei in China, Hanoi in Vietnam, Yangon in Myanmar, and Jakarta in Indonesia. Other nodes are being deployed one after another. At present, more than 300 nodes around the world have been connected to provide global monitoring services. The successful deployment of the probe system on the edge cloud has brought profound reference and reference significance to the later deployment of other applications. It is currently planned to continue to deploy the looking glass system and other internal and external applications with the remaining resources on the edge cloud, effectively avoiding the waste of deploying a set of resources for a single application and maximizing resource reuse; it has also been unified at the management and operation levels.

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中国联通将继续朝数字化转型方向演进,为公司业务增长和发展赋能,提升客户感知。

China Unicom will continue to evolve in the direction of digital transformation, empower the company's business growth and development, and enhance customer perception.

IBM 可持续计算解决方案 携手共创可持续未来

IBM Sustainable Computing Solution to Co-Create Sustainable Future





Countries and Regions Covered or Involved in the Implementation 美国、澳大利亚、巴西、法国、

印度等 41 个国家和地区

41 countries and regions such as United States of America, Australia, Brazil, France, India

IBM



IBM 可持续计算解决方案 携手共创可持续未来

IBM Sustainable Computing Solution to Co-create Sustainable Future

IBM 全栈可持续计算解决方案从企业可持续发展目标入手 制定可持续计算实施战略与路线图,以及相适应的业务架 构、应用、数据与流程,混合云与 AI 技术与平台,IT 与 环境基础设施等,最终通过全层级的可持续性,实现安全、 稳定、便捷、绿色的发展目标。

IBM Full–Stack Sustainable Computing solution starts by formulating a sustainable computing implementation strategy and roadmap based on the enterprise's sustainable development goals. This includes designing and implementing sustainable business architecture, applications, data, processes, hybrid cloud and AI technologies and platforms, and IT and environmental infrastructure. Ultimately, it aims to achieve secure, stable, convenient, and green development goals through a comprehensive sustainability approach at all levels.

携手可持续计算 实现可持续的命运共同体

Achieve a Sustainable and Shared Future with IBM Sustainable Computing Solution

过去 50 多年间, IBM 深耕 "绿色 IT"、"绿色基础设施"、"可 持续软件"、"负责计算"等领域的技术创新与产品研发, 形 成一整套数字化驱动可持续发展的硬件、软件以及服务资产及 方法论。IBM 将自身发展的经验与服务客户的最佳实践凝结 在"IBM 全栈可持续计算解决方案"中,并与中国信息通信 研究院共同发布了业界首个《可持续计算蓝皮报告》,深度阐 述了全栈可持续计算概念、技术架构、方法论与实施参考案例。 该方案从可持续发展战略开始,制定"合规、优化、重塑、引 领"四阶段可持续发展路线图,并对全栈 – 业务应用、混合 云与 AI 技术与平台、IT 基础设施、环境基础设施的近百个可 持续性量化指标进行实时监控、数据分析与展示、持续优化并 自动执行优化策略及动作。该方案已经在全球 41 个国家或地 区落地实施可持续计算解决方案,加速其达成可持续发展目标。例如,财富 500 强公司的三分之二、全球前 50 大银行中的 45 家、前 10 家保险公司中的 8 家、全球前 10 大零售商中的 7 家以及前 10 家电信公司中的 8 家都在使用 IBM 提供的高性能、高可靠、高安全及低能耗的可持续计算基础设施。IBM 为全球的企业客户提供全方面的从可持续战略制定,到业务的可持续转型、混合云与人工智能等技术平台的搭建,到可持续 IT 与环境基础设施的落地与运营的解决方案。

Over the past 50 years, IBM has been deeply dedicated to technological innovation and product development in the fields of "Green IT," "Green Infrastructure," "Sustainable Software," and "Responsible Computing." It has created a comprehensive set of advanced hardware, software, service assets, and methodologies to drive digitalization and sustainable development. IBM has consolidated its development experience and the best practices for serving clients into the "IBM Full-Stack Sustainable Computing Solution." In collaboration with the China Academy of Information and Communications Technology (CAICT), IBM has jointly published the industry's first "Sustainable Computing Blue Paper," which provides in-depth explanations of the concept, technological architecture, methodology, and implementation reference cases of full stack sustainable computing. The solution begins with a sustainable development strategy, establishes a fourstage roadmap of compliance, optimization, transformation, and leadership, and provides real-time monitoring, data analysis and visualization, continuous optimization, and automated execution of optimization strategies and actions for nearly a hundred sustainability quantification indicators across the entire stack, including business applications, hybrid cloud and AI technologies and platforms, IT infrastructure, and environmental infrastructure. This solution has already been implemented in 41 countries or regions worldwide, accelerating the achievement of sustainable development goals. For example, two-thirds of Fortune 500 companies, 45 out of the top 50 global banks, 8 out of the top 10 insurance companies, 7 out of the top 10 global retailers, and 8 out of the top 10 telecommunications companies are using IBM's high-performance, highly reliable, highly secure, and energyefficient sustainable computing infrastructure. IBM provides comprehensive solutions to global enterprise customers, ranging from sustainable strategy planning, business sustainable transformation, and building technology platforms such as hybrid cloud and artificial intelligence to implementing and operating sustainable IT and environmental infrastructure.



IBM 全栈可持续计算解决方案概览 IBM Full-stack Sustainable Computing Solution Overview



50 年来 IBM 不遗余力地践行可持续发展使命 IBM has Deeply Dedicated to Sustainable Development Mission over the Past 50 Years

数据驱动、全局最优、AI 赋能、持续优化的 IBM 全栈可持续计算方案

IBIM's Full-stack Sustainable Computing Solution: Data-driven, globally optimal, AI-enabled, and continuously optimized

通过云计算、物联网、大数据、人工智能、增强现实、多 目标、多学科优化、高性能计算等技术,IBM 全栈可持续 计算方案具有数据驱动、全局最优、AI 赋能、持续优化等 特点。该方案综合了IBM 最新的混合云与 AI 技术,高可 靠性、高性能、高安全性以及更可持续的计算与存储设备, 以及创新的可持续发展咨询、服务与交付能力。它包含了 近百项专利技术,并采用了开源开放的架构。该方案支持 企业在业务应用、数据治理、智能工作流、混合云与人工 智能技术与平台、可持续基础设施以及绿色数据中心的各 个层级和全生命周期中进行可持续规划、实施、管理和优 化。该方案可以适配企业已有的资产与投资,可以从任意 层级入手,为企业量身制定可持续发展路线图与实施方案, 助力千行百业加速实现全面的可持续发展目标。 Applying advanced technologies such as Cloud Computing, Internet of Things (IoT), big data, Artificial Intelligence (AI), Augmented Reality, multi-objective optimization, multidisciplinary optimization, and High-Performance Computing (HPC), IBM Full-stack Sustainable Computing is a data-driven, globally optimal, Al-empowered, and continuously optimized solution. This solution integrates IBM's latest hybrid cloud and AI technologies, high reliability, high performance, high security, sustainable computing and storage devices, and innovative sustainable development consulting, services, and delivery capabilities. It includes nearly a hundred patented technologies and adopts an open-source architecture. This solution supports enterprises in sustainable planning, implementation, management, and optimization across all levels and the entire lifecycle in business applications, data governance, intelligent workflows, hybrid cloud, Al technologies and platforms, sustainable infrastructure, and green data centers. It can adapt to an enterprise's existing assets and investments. It can start from any level, tailoring sustainable development roadmaps and implementation plans to help businesses across various industries accelerate achieving comprehensive sustainability goals.



IBM 与中国信息通信研究 院共同发布业界首个《可 持续计算蓝皮报告》,给 出可持续计算技术架构

IBM and the China Academy of Information and Communications Technology jointly release the industry's first 'Sustainable Computing Blue Paper,' outlining the sustainable computing technology architecture



IBM 全栈可持续计算 实施方案技术架构图

IBM Full-stack Sustainable Computing Solution Technical Architecture

IBM 全栈可持续计算解决方案使得"降本增效"与"可持续发展"二者兼得

IBM Full–Stack Sustainable Computing Solution Enables a Win–Win Situation of "Cost Reduction And Efficiency Improvement" and "Sustainable Development"

该方案加速企业战略、业务应用、混合云平台以及层层"绿 化",以全新的可持续战略思维重塑企业的数字化转型。 在中国,IBM 为百度智能云实施降本增效、安全合规的可 持续存储解决方案,功耗和碳排放节省超过 90%,运营 成本降低 80%。在美国,IBM 为花旗银行制定安全可持 续的高密度整合解决方案,将 MongoDB 工作负载整合至 IBM LinuxONE,解决服务器数量激增的问题,节能减碳 50%,性能提升 15%。在澳大利亚,IBM 为 GPT 集团提 供基于 Envizi 的系统化数据驱动的环境、社会和公司治理 (ESG)数据管理和报告方法,减少能耗和碳排放 52%, 每年节约 2000 万美元资源消耗,开辟可持续发展道路。 在沙特阿拉伯,IBM 为利雅得机场提供基于 IBM Maximo 和 Cognos Analytics 数字化机场解决方案,生产力提升

了 40%,数据洞察力增加了 50%,维护文书工作减少了

80%,为实现沙特阿拉伯 2030 愿景做出了贡献。IBM 可 持续计算解决方案让可持续发展与数字化转型有机结合, 赋能企业迈向"人与自然和谐共生的现代化"。

The solution accelerates the "greening" of enterprise strategies, business applications, and hybrid cloud platforms, reshaping enterprise digital transformation with a new sustainable strategic mindset. In China, IBM implemented a cost-effective and secure sustainable storage solution for Baidu Cloud, achieving over 90% energy and carbon emission savings and an 80% reduction in operational costs. In the United States, IBM developed a secure and sustainable high-density integration solution for Citibank. consolidating MongoDB workloads onto IBM LinuxONE, addressing the challenge of server proliferation, achieving a 50% energy reduction, and a 15% performance improvement. In Australia, IBM provided the GPT Group with a systematic, data-driven approach to environmental, social, and corporate governance (ESG) data management and reporting using Envizi, resulting in a 52% reduction in energy consumption and carbon emissions, saving \$20 million annually in resource consumption, and paving the way for sustainable development. In Saudi Arabia, IBM has provided Rivadh Airports with a digital airport solution based on IBM Maximo and Cognos Analytics. This has resulted in a 40% increase in productivity, a 50% improvement in data insights, and an 80% reduction in maintenance paperwork and has contributed to achieving Saudi Arabia's Vision 2030. IBM's sustainable computing solution integrates sustainability with digital transformation, empowering enterprises to move towards a "modern coexistence of humans and nature."

IBM 全栈可持续计算解决方案 助力千行百业实现高质量发展

IBIM Full-Stack Sustainable Computing Solution Empowers Thousands of Industries to Achieve High-Quality Development

可持续发展是全球的共识,也是国际合作的热点,是构建 "人类命运共同体"的必然选择。IBM 一直践行科技创新 推动可持续发展的理念,并将过去 50 多年自身的可持续 发展经验与技术创新,凝聚在"IBM 全栈可持续计算解决 方案"中。企业的可持续发展,不仅表现为企业持续、稳 定、健康的发展,还表现为企业发展与自然环境的改善、 社会发展的和谐统一。也就是说,企业的可持续发展既要 "独善其身",又要"兼济天下"。 Sustainable development is a global consensus and a hot topic in international cooperation. It is also an inevitable choice for building a "Community of Shared Future for Humanity." IBM has always been committed to using technological innovation to promote sustainable development. Over the past 50 years, it has accumulated sustainable development experiences and technological innovations, condensed in the "IBM Full–stack Sustainable Computing Solution." Sustainable development is not only about a company's continuous, stable, and healthy growth but also about improving the natural environment and achieving harmonious social development. In other words, corporate sustainable development requires both "self–sustainable" and "benefiting the world".





IBM 眼中的企业可持续发展——既要"独善其身"又要"兼济天下" IBM's Point of View on Enterprises' Sustainable Development: Being Self-sustainable while Benefiting the World



IBM 可持续计算成熟度模型与实施路线图

IBM Sustainable Computing Maturity Model and Implementation Roadmap



阿里巴巴数字乡村携手联合国国际贸易中心助力非洲发展中 国家数字减贫

Alibaba Digital County Partnering with International Trade Centre (ITC) to Support Digital Poverty Alleviation in African Developing Countries



携手助力非洲产品数字化升级 Working together to help digitize African products 2022 年,阿里巴巴集团和联合国国际贸易中心签署了谅解备忘录,致力于发挥双方优势,共同支持发展中国家中小微企业 参与全球数字贸易,助力数字减贫,促进可持续发展。

In 2022, Alibaba Group and the United Nations International Trade Centre signed a Memorandum of Understanding committing to leverage the strengths of both parties and jointly support the participation of micro, small, and medium enterprises (MSME)in global digital trade, contribute to digital poverty reduction, and prom ote sustainable development in developing countries.

阿里巴巴数字乡村携手国际贸易中心探索非 洲发展中国家合作及助力数字减贫模式

Alibaba Digital County partnering with International Trade Cen tre (ITC) to explore models of cooperation and digital poverty alleviation for developing countries in Africa

阿里巴巴数字乡村与联合国国际贸易中心展开合作,基于 在乡村产业振兴、农产品上行及政企合作等方面的经验, 希望把中国助力乡村振兴的经验推广到更多发展中国家。

Alibaba Digital County cooperated with the United Nations International Trade Centre (ITC) to promote China's experience in rural industry revitalization, agricultural product uploading, and government–enterprise cooperation to more developing countries. 我们希望通过三个方面的合作:对埃塞俄比亚特色产品高 山咖啡进行数字化升级,包括产品打造、供应链优化、电 商营销等板块;同时针对非洲中小企业及创业者进行电商 专题培训,让他们更了解中国市场;以及推动与非洲国家 政府官员之间的交流合作,联合探索助力非洲数字减贫模 式,促进可持续发展。

We hope to cooperate in three areas: First, digitally upgrading Ethiopia's unique product, the Ethiopian highland coffee, including product upgrading, supply chain optimization, e-commerce marketing, and other sectors. Second, conducting e-commerce thematic trainings for African small and medium-sized enterprises (SMEs) and entrepreneurs so that they can better understand the Chinese market. Third, promoting exchanges and cooperation with government officials of African countries and jointly exploring modes of assisting in poverty alleviation in Africa through digital approaches to promote sustainable development.



非洲大使及官员们参访阿里巴巴集团 The visit of African ambassadors and officials to Alibaba Group

通过特色产品数字化升级、中小企业培训、国际政企交流等板块合作。 输出中国乡村振兴经验

Share China's experience in rural revitalization through digitizing upgrading of unique products, SMEs training, and international government-enterprise communication



Helping digitize African products

基于阿里数字化助力乡村振兴的经验, 阿里数字乡村为 埃塞俄比亚高山咖啡产品打造全新包装与品牌故事、供 应链优化及线上下数字化营销规划等,提升产品数字化 销售能力。

Based on Alibaba' s experience in digital rural revitalization, Alibaba Digital County created new packaging and brand stories for Ethiopian highland coffee and came up with supply chain optimization and online and offline digital marketing planning to enhance the digital sales of the products.



(二)发展中国家中小企业培训,提升电商认知

Providing Training for Small and Medium Enterprises (SMEs) in Developing Countries to Raise E-commerce Awareness

2022 年 6 月,发起"变化中的中国市场"专题培训,阿 里闭队为来自非洲及东南亚发展中国家的 50 多家中小 企业进行业务分享,包括中国消费市场发展、消费者洞察、 农产品升级趋势等,让非洲企业更加了解中国市场。

In June 2022, the two parties launched a special training program on "Brand Positioning in the Chinese Market," during which Alibaba shared business insights on the development of China's consumer market, consumer insights, and trends in upgrading agricultural products. More than 50 SMEs from developing countries in Africa and Southeast Asia participated to gain a better understanding of the Chinese market.

(三) 推动国际政企交流, 扩大合作 Promoting International Government-Enterprise communication to Expand Cooperation

2022 年 8 月, 双方发起非洲大使座谈会, 与来自毛里求斯、 莫桑比克、马达加斯加、埃塞俄比亚、肯尼亚、赞比亚、卢旺 达、尼日利亚等八个非洲国家驻华大使及官员交流数字化助力 乡村振兴经验,及探索为非洲中小企业、农业企业制定培训计 划,促进本地电子商务发展。

In August 2022, the two parties held an African Ambassador Panel discussio n to exchange experiences on digital support for rural revitalization with amb assadors and officials from eight African countries, including Mauritius, Mo zambigue, Madagascar, Ethiopia, Kenya, Zambia, Rwanda, and Nigeria. Al ibaba also explored the development of training programs for small and mediumsized enterprises and agricultural enterprises to promote local e-commercedevelopment.

第五届上海国际进出口博览会,虹桥国际经济论坛"数字经济 开放与治理"分论坛中,阿里数字乡村联合 ITC 分享《数字化 助力乡村振兴的中国经验》。

In the sub-forum "Digital Economy Opening and Governance" of the Honggiao International Economic Forum at the 5th China International Import Expo in Shanghai held in November 2022, the Alibaba Digital County department and ITC shared China's experience in digital support for rural revitalization.



数字化助力乡村振兴的中国经验输出

China's Experience in Digital Support for Rural Revitalization is being Shared

联合国 2030 年可持续发展议程(SDGs)于 2015 年正式 出台,成为最重要的全球发展议程和共识。习近平主席 2019 年提出的全球发展倡议(GDI)是巩固 SDGs 全球共 识、加快全球落实 SDGs 的最新意愿和行动计划。我们认 为,中国的经济快速发展特别是集全社会合力助力乡村振 兴事业的行动为 SDGs 积累了有益经验,为世界提供了可 行、可复制的实践借鉴。通过对农业特色产业的生产、销 售、物流等全流程数字化,有效推动农业产业的智能化和 现代化,促进数字减贫。阿里数字乡村与 ITC 的合作案例 及成果因此得到央视、进博会、外交部、ITC 总部等媒体

及官方机构广泛传播,中国乡村振兴案例与模式得到广泛 输出,数字化助力乡村振兴的影响力也获得了明显提升。

The United Nations' 2030 Agenda for Sustainable Development (SDGs) was officially launched in 2015 and has become the most important global development agenda and consensus. Proposed in 2019 by President Xi Jinping, the Global Development Initiative is the latest will and action plan to consolidate global consensus on SDGs. China's rapid economic development, particularly its efforts to revitalize rural areas with the collective efforts of the entire society, has accumulated valuable experience in advancing SDGs and provided practical and replicable reference for the world. The cooperation cases and achievements of the Alibaba Digital County department and ITC have been widely disseminated by various media outlets and official organizations, such as CCTV, the China International Import Expo, the Ministry of Foreign Affairs, and ITC headquarters. It has enhanced the impact of digital support for rural revitalization.



德国史太白技术转移中心:打造专业技术转移数字化平台

German Steinbeis Technology Transfer Center: Creating a Digital Platform for Professional Technology Transfer



在线学习效果、证书展示 Displays of online learning effectiveness and certificate

申报机构 Applying Institution

德国史太白大学图宾根全球研究所

Steinbeis Global Institute Tubingen



其他参与机构 Other participating organizations

国际技术转移协作网络(ITTN) International Technology Transfer Network



Innovative Development of the Digital Economy

Promoting Innovative Development of **151** the Digital Economy for Common Prosperity

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、法国、美国、日本等 10 个国家和地区 10 countries and regions such as China, France, United States of America, Japan

技术转移是促进经济发展和提高国家竞争力的重要 途径,在科技成果转化需求日益增长的背景下,我 们应通过加强国际合作,吸取先进经验,构建一个 全方位、多元化的技术转移平台,形成一个更加紧 密的网络空间命运共同体。

Technology transfer is an important means to promote economic development and enhance national competitiveness. Against the backdrop of increasing demand for the transformation of scientific and technological achievements, we should strengthen international cooperation, draw on advanced experiences, and build a comprehensive and diversified technology transfer platform. This will help create a closer community of shared future in cyberspace.

数字化平台应用——人才培养

Aims of Digital Platform Application – Talent Cultivation

为加速推进科技成果转移转化人才队伍建设,培养一批具 有国际视野的技术转移专业人才,促进创新驱动发展,国 际技术转移协作网络(ITTN)于今年5-6月份,与德国史 太白大学图宾根全球研究所联合举办"德国史太白技术转 移经理人 SITTM"培训项目(以下简称"SITTM")。其中, 德国史太白大学图宾根全球研究所同时是 SITTM 培训课 程的授课单位。

To accelerate the development of talent in the field of technology transfer and promote the transformation of scientific and technological achievements, it is important to cultivate a group of technology transfer professionals with international perspectives. In order to drive innovation and collaboration, the International Technology Transfer Network (ITTN) has partnered with the Global Research Institute of the University of Stuttgart in Germany to organize the "Stuttgart Institute of Technology Transfer Managers (SITTM)" training program in May–June this year. The Global Research Institute of Stuttgart will be responsible for delivering the SITTM training courses.

德国史太白技术转移网络由一个州立的技术转移机构发展 成为国际化、全方位、综合性的技术转移网络,业务遍及 研发、咨询、培训、转移等各环节,吸引了各个领域的大 批专家学者参与,面向全球提供技术与知识转移服务。作 为史太白技术转移网络的重要一员,图宾根全球研究所可 以在教育、研发、企业等不同层面与斯泰恩拜斯下属的 900余个组织实现对接。

152 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

German Steinbeis Technology transfer Center, developed from a stateowned technology transfer institution, has become an international, comprehensive technology transfer network covering various aspects such as research and development, consulting, training, and transfer. It has attracted a large number of experts and scholars from various fields to participate and provides technology and knowledge transfer services worldwide. As an important member of the Stuttgart Technology Transfer Network, the Global Research Institute of the University of Stuttgart can connect with more than 900 affiliated organizations under Steinbeis at different levels, including education, research and development, and enterprises.



史太白技术转移数字化平台 2023 年课程开班仪式 2023 Course Opening Ceremony of STB Technology Transfer Center

国际合作数字化平台

International collaboration digital platform

德国史太白技术转移网络是德国非营利技术转移中介机构 的典型代表。经过近 50 年的发展,史太白已由一个州立 的技术转移机构发展成为国际化、全方位、综合性的技术 转移网络,业务遍及研发、咨询、培训、转移等各环节, 吸引了各个领域的大批专家学者参与,面向全球提供技术 与知识转移服务。史太白具有现代扁平化组织结构,由 6000 名专家组成,遍及 1100 家转移企业,年营业收入达 到 1.62 亿欧元。史太白技术转移经理人 SITTM,是德国 大学、工业和政府实验室知识转移和商业化从业人员的国 际专业标志。知识框架内包含整个国际技术转移的能力和 经验要求。



史太白培训证书展示 Display of SITTM training certificates

German Steinbeis Technology transfer Network is a typical representative of non-profit technology transfer intermediaries in Germany. After nearly 50 years of development, STB has evolved from a state-owned technology transfer institution into an international, comprehensive technology transfer network that covers research and development, consulting, training, and transfer services. It had attracted a large number of experts and scholars from various fields and provides technology and knowledge transfer services worldwide. Steinbeis has a modern and flat organizational structure, consisting of 6000 experts and collaborating with 1100 transfer enterprises, with an annual turnover of 162 million euros. SITTM is an international professional certification for knowledge transfer and commercialization practitioners in German universities, industrial and government laboratories. It encompasses the capabilities and experience required for international technology transfer.

史太白技术转移培训的经济效益

The Economic Benefits of Technology Transfer Training of SITTM

史太白技术转移培训的经济效益主要体现在 以下几个方面:

增加企业竞争力:通过技术转移培训,企业 可以获取先进的技术和知识,提高生产效率、 产品质量和创新能力,从而增强企业的市场 竞争力,获得更多的市场份额和利润。

The economic benefits of technology transfer training are mainly reflected in the following aspects:

Increasing competitiveness of enterprises: Through technology transfer training, companies can acquire advanced technology and knowledge, improve production efficiency, product quality, and innovation capabilities, thereby enhancing their market competitiveness, gaining more market share and profits.

降低研发成本: 技术转移培训可以帮助企业 避免重复投资和资源浪费,减少研发成本, 提高资源利用效率,使企业能够更有效地利 用有限的资源进行技术创新和产品开发。

Reducing research and development costs: Technology transfer training can help companies avoid duplicate investments and resource waste, reduce research and development costs, improve resource utilization efficiency, and enable companies to more effectively use limited resources for technological innovation and product development.

模块	培训内容描述细化	学时	讲师
支术转移介绍及挑战	对 SITTM 中级培训课程的全面介绍,帮助学员了解学 习技术转移课程的必要性以及将来需要应对的主要挑 战,具体课程要点包括: • 课程架构和沟通 • 个体转移项目的遗清 • 提安转让文件 技术转移中面临的挑战 • 内部挑战 • 外部挑战 • 德国对技术转移的看法	2	Prof. Bertram Lohmueller 史太白大学全球研究院院长 再生能源与可持续发展研究 所所长
人创意到创新	从创新这一关键维度出发,以需求则为导向解读创新技 术从其创意起点出发,到迈向市场化、商业价值转化的 关键思路与核心理念: ● 什么是创新 ● 隐藏的需求 ● 产品开发阶段之门 ● 创新五项理念	3	Prof. Bertram Lohmueller
支术转移方法	详细解读科技成果转移转化的全流程工作,尤其以寻得 关键研究资金、海内外经费资源支持的可能渠道、市场 调研方法与规避政治风险等实操经验。	5	Prof. Bertram Lohmueller
战略性的业务发展	 阐述技术商业化策略与实操方法中的的关键步骤与实用 工具: 市场营销圈 合作管理 市场发展领域 商业模型画布 	4	Prof. Bertram Lohmueller Co- trainer Dr. Alexander Petrikhin 史太白技术创新与管理高级 讲师 巴登符腾堡州技术出口学系 研究员
七项全能概念	此模块包括史太白原创的 IMLead [®] 七项全能概念 • 什么是 IMLead [®] • IMLead 的七个方向 [®] • 概念的特点和讨论七个领域:经理(首席技术官首席 技术官),个人,信息,未来,过程,敏捷性,财务和综合 思维与行动,	1.5	Prof. Bertram Lohmueller
国际技术转移与沟通	演示技巧 • 极有说服力的业务演示文稿 跨文化间的交流	3	Dr. Andreas Frost 史太白国际法与国际技术组 移专家组成员、律师 Co- Trainer Mozzh
	2大转移介绍及挑战 人创意到创新 2大转移方法 达瑞性的业务发展 二项全能概念	对SITTM 中级培训课程的全面介绍,帮助学员了解学 习技术转移课程的必要性以及将未需要应对的主要挑 战,具体课程要点包括: 。课程架构和沟道 • 个体转移项目的资清 · 进交转让文件 技术转移中面临的挑战 • 内部扰战 • 外部挑战 • 德国实技术转移的看法 人创意到创新 人创新这一关键维度出发,以需求则力导向解读创新技术从其创意起点出发,到迈向市场化、商业价值转化的 关键思路与核心理念: • 什么是创新 • 隐藏的需求 • 产品开发阶段之门 • 创新五项理念 大林转移方法 学婚期实员全、前本外经费资源支持的可能渠道、市场 调研方法与规避政治风险等实操经验。 财路性的业务发展 前述技术和业化策略与实操方法中的的关键步骤与实用 工具: • 市场营销图 • 合作管理 • 市场发展领域 • 商业模型画布 工具全能概念 · 比模块包括史太白原创的 IMLead [®] 七项全能概念 · 什么是 IMLead [®] • IMLead 的七个方向 [®] · 概念的特点和讨论七个领域: 经理 (首席技术官首席 技术官)、个人,信息,未来,过程,敏播性,财务和综合 思维生写示动。 酶時术转移去 · 被有说服力的业务演示文稿	対SITTM 中级培训课程的全面介绍、帮助学员了解学 习技术转移课程的必要性以及将来需要应对的主要挑战、具体课程要点包括: ·课程深时印泡通 •个体转移项目的澄清 ·混文转让文件 技术转移中面临的挑战 ·内部挑战 •介部挑战 ·微圈对技术转移的看法 2 人创葡这一关键维度出发,以需求则为号向解读创新技术从其创意起点出发,到迈向市场化、商业价值转化的关键思想与核心理念: ·什么是创新 • 隐藏的需求 ·产品开发阶段之门 • 创新五项理念 3 大味转移方法 ·维研装时技术转移转化的全流程工作,尤其以寻得关键研究资金、海内外经费资源支持的可能渠道、市场 调研方法与规避政治风险等实课经验。 5 咖啡性的业务发展 ·前法技术商业化策略与实操方法中的的关键步骤与实用工具: ·市场发展领域 • 商业模型圆面布 4 ·可全能概念 ·化成是 MLead * ·MLead 的七个方向 * ·概念的特点和讨论七个领域:经理 (首席技术盲首席技术盲首席 技术官). 个人,信息,未来,过程,敏捷性,财务和综合 思维与行动, ·微有说服力的业务演示文稿 1.5

加快技术进步:通过技术转移培训,企业可以及时了解到最新的技术趋势和发展动态,从而加快技术的引进和应用,推动企业的技术进步和创新,为企业的可持续发展奠定基础。

Accelerating technological progress: Through technology transfer training, companies can timely understand the latest technology trends and development dynamics, thereby accelerating the introduction and application of technology, promoting technological progress and innovation, and laying the foundation for the sustainable development of enterprises.

全球支付及清算体系建设项目

Global Payment and Settlement System Project





APEC Workshop: Going Digital to Build Resilience and Sustainable Growth in Response to COVID-19 14 April 2022

(申报机构 Applying Institution

中国工商银行股份有限公司

Industrial and Commercial Bank of China Limited



案例涉及的国家和地区

Countries and Regions Covered or Involved in the Implementation

香港、英国、俄罗斯、澳大利亚等37个国家和地区

37 countries and regions such as Hong Kong (China), United Kingdom, Russia, Australia

工银全球付构建了工行自主可控、安全便捷的全球结算服务网络, 基于工行自有系统进行客户指令传输,实现跨行支付全自动秒级处 理,助力跨国企业实现全球资金调度与管理

ICBC Global Pay has established a self-supporting, risk-controllable, safe, and convenient global settlement service network. Based on ICBC's own systems, it transmits customers' commands, realizes full-automatic second-level processing across banks, and helps transnational enterprises allocate and manage global funds

中国工商银行积极推动数字化转型发展,为满足大型 跨国企业在全球范围内安全、高效支付的核心诉求, 构建了自主可控的全球支付清算体系和"工银全球付" 综合金融服务,赋能跨国企业全球化经营,增强金融 服务实体经济能力。 ICBC actively promotes digital transformation and development. To meet large transnational enterprises' core requirement of safe and efficient payment around the world, ICBC has established a self–supporting and risk– controllable global payment and settlement system and "ICBC Global Pay" comprehensive financial services that empower transnational enterprises' global operations and strengthen the capability of the financial sector in serving the real economy.

打造全球一体化支付清算体 系和全球综合金融服务

Build an integrated global payment and settlement system and global comprehensive financial services

依托全球互联互通的核心银行系统, 工商银行构建了自主可控的全球一 体化清算平台和诵达全球的支付清 算网络,实现了50余个主流币种和 全球140多个国家和地区、7×24 小时的支付清算服务。对接近40个 国家和地区的本地清算系统,实现 境外支付全自动秒级处理,提供丰 富的汇路选择、高效的资金清算, 提升客户支付效率,服务跨境贸易 快速发展。全力推动人民币国际化 建设,工行获得了境外11家人民币 清算行、10家 CIPS 直参行资质, 并拓展了 210 家 CIPS 间参行,人民 币清算能力覆盖全球六大洲。同时, 全新打造"工银全球付"品牌,创 新了集"全球账户、全球支付、全 球发薪、全球资金、全球资产、全 球风险"六位一体的综合金融产品 服务体系,全面覆盖企业各类国际 化经营场景。



工银全球提供安全便捷的全球支付直通,以及高效的全球发薪、集中收付汇、询价购汇汇款和多渠道汇款跟踪查询等服务

ICBC Global Pay can provide safe and convenient express global payment service, efficient global payroll service, centralized exchange receipt, payment, inquiry, foreign exchange purchase and remittance, multi-channel remittance tracking, and query services

Based on its core banking system featuring global connectivity, ICBC has established a selfsupporting and risk-controllable integrated global settlement platform and a payment and settlement network with global reach, enabling ICBC to provide 24/7 payment and settlement services in more than 50 mainstream currencies across more than 140 countries and regions. By connecting to local settlement systems in nearly 40 countries and regions, ICBC has realized full-automatic secondlevel processing of overseas payment, provided rich remittance path options and efficient capital settlement, improved customer payment efficiency, and served rapid development of cross-border trade. ICBC has put forth an effort to promote RMB internationalization. ICBC has RMB clearing capability covering six continents, with 11 RMB clearing banks overseas, 10 CIPS Direct Participants, and 210 CIPS Indirect Participants. Meanwhile, ICBC has built the "ICBC Global Pay" brand and developed a "six-in-one" comprehensive financial product and service system that integrates global account service, global payment service, global payroll service, global capital service, global asset management, and global risk control, comprehensively covering all types of international operation scenarios of enterprises.

创新数字智能、安全高效的全球支付产品服务

Innovative, digital, intelligent, safe and efficient global payment products and services

工商银行规模化运用大数据、人工智能、机器学习等技术,依托企业级人工智能等技术平台, 围绕业务处理、客户服务、风险防控等领域,建立一系列智能数字模型,并创新应用"数字员工" 的业务运作新模式,显著提升了全球交易业务处理效率。在系统设计上,通过组件化研发模式, 灵活适配境外各地清算差异,建立核心稳定、便于扩展、支持灵活转换的内部标准报文体系, 以及可灵活配置和差异化定制的工作流程与业务规则,有力支撑全球支付业务快速对接与扩展。 在系统安全方面,建立全面的支付清算系统高可用技术体系,围绕支付清算业务高并发、业务 突增、跨时区强业务连续性等技术难点,基于工商银行企业级云计算 + 分布式平台,建设系统 弹性伸缩、数据零丢失、多重容错机制、快速故障切换能力,保障全球支付清算业务的 7x24 小 时不间断连续运行。

Ultimate customer experience

ICBC has built the automatic query and reply model of cross-border inter-bank payment and settlement transactions, realizing intelligent identification and query classification based on query message content and automatic reply using different reply templates. With an accuracy of over 95%, the model has improved query and reply processing efficiency.

Improve

quality and

efficiency

Efficient business operation

ICBC has built message account name and address splitting, capital nature identification and line number additional-recording models and applied them in the business processing procedures of cross-border mescage transfer, customer information completeness check, collection message entry, intelligent landing instruction line number additionalrecording, etc., realizing intelligent operation. With an accuracy of over \$2%, the models have improved the processing efficiency and quality of key business links.

Intelligent risk control

IGBC has established the customer attribute identification and compliance risk judgment model and embedded it into cross-border romittance and cross-border collection compliance processing intiks, realizing intelligent interception of illegal services such as split remittance and remittance under capital items. With an accuracy of over 99%, the model has significantly improved risk control capability of cross-border anyment business.

践行国有大行担当, 推动全球化金融服务高质量发展, 创造良好的社会经济效益

Fulfill the responsibilities of a large state-owned bank, promote high-quality development of global financial services, and create sound social and economic benefits

By applying technologies like big data, artificial intelligence, and machine learning on a large scale and making use of technology platforms such as enterprise–level AI platforms, ICBC has, centering around business processing, customer service, and risk control, established a series of intelligent digital models and creatively employed the new business operation model of "digital employees," which have significantly improved the processing efficiency of global transaction business. In system design, through the component–based R&D model, ICBC has flexibly adapted to the clearing differences between local and overseas, established an international standard message system that has a stable core, is easy to expand, and supports flexible conversion, as well as operating procedures and business rules that can be flexibly configured and customized, which have effectively supported quick connection and expansion of global payment business. In terms of system security, ICBC has established a comprehensive, high–availability technology system for the payment and settlement system. With a focus on technological difficulties in the payment and settlement business, such as high concurrency, the surge in business volume, and strong business continuity across time zones, based on its enterprise–level cloud computing + distributed platform, ICBC has built elastic expansion, zero data loss, multiple fault tolerance mechanism, and quick failover system capabilities to ensure 24/7 uninterrupted continuous operation of global payment and settlement business.

中国工商银行自主打造工银全球支付及清算体系,创新推出"工银全球付"综合金融服务,是金融服务实体经济、体现大行担当的重要举措,为推动构建网络空间命运共同体贡献了工行力量,并创造了良好的社会经济效益。目前该产品已推广至全球40个国家和地区,服务全球超过一万家企业客户,年交易金额突破3万亿元,通过创新产品弥补不发达国家或地区数字鸿沟,服务跨境贸易发展,促进全球资金互联互通,支持企业更好地参与国际经济合作。

Independently developing the global payment and settlement system and creatively launching the "ICBC Global Pay" comprehensive financial services are essential measures of ICBC to serve the real economy through finance and fulfill its responsibilities as a large bank, which have contributed ICBC's bit to the building of a cyberspace community with a shared future and created sound social and economic benefits. So far, the product has been promoted to 40 countries and regions, served over 10 thousand corporate customers worldwide, and recorded an annual transaction volume of more than RMB3 trillion. It has bridged the digital divide in underdeveloped countries or regions, served the development of cross–border trade, promoted connectivity of global funds, and supported enterprises better participating in international economic cooperation.

同业首创,多次荣获重量级奖项

The first of its kind in the industry, winning many heavyweight awards

项目成果荣获《环球金融》、《亚洲银行家》等机构颁发的《亚太区最佳人民币清算行》、《最佳支付服务银行》 《最佳资金和现金管理银行》等一系列国际奖项。

The results of the Project have won a series of international awards, including "Best RMB Clearing Bank in Asia Pacific," "Best Bank in China for Payments & Collections," and "Best Treasury & Cash Management Bank" from Global Finance, The Asian Banker, etc.

项目成果荣获《亚洲银行家》 颁发的《亚太区最佳现金管理银行》, 《环球金融》颁发的《最先进交易技术》 等国际奖项

The results of the Project have been awarded "Best RMB Clearing Bank in the Asia Pacific" by The Asian Banker and "Best Bank for State-of-the-art Trading Technology" by Global Finance





数聚上合,携手向远 ——中国—上海合作组织数字技术合作发展论坛

Together We Go Further—China-Shanghai Cooperation Organization Digital Technology Cooperation and Development Forum



中国-上海合作组织数字技术合作发展论坛 Форум по развитию и сотрудничеству в области цифровых технологий Китай-ШОС СНІМА-SHANGHAI COOPERATION ORGANIZATION DIGITAL TECHNOLOGY COOPERATION AND DEVELOPMENT FORUM

申报机构 Applying Institution

中国信息通信研究院

中国 - 上海合作组织大数据合作中心

China Academy of Information and Communications Technology China–SCO Big Data Cooperation Center

<u>CAICT</u>中国信通院



其他参与机构 Other participating organizations

上海合作组织秘书处 哈萨克斯坦国家铁路公司 巴基斯坦国民银行北京代表处 深圳北理莫斯科大学





柬埔寨数字技术研究院

Shanghai Cooperation Organization Secretariat Kazakhstan Temir Zholy (KTZ), the National Railway Company of Kazakhstan Representative Office, Beijing, National Bank of Pakistan (NBP), Shenzhen MSU–BIT University, Cambodia Academy of Digital Technology (CADT)

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

印度、哈萨克斯坦、中国等 26 个国家和地区 26 countries and regions such as India, Kazakhstan, China

为推动上海合作组织国家间开展多维度、多层次、 多种类的产业对接合作,构建多边开放合作生态, 促进各国数字技术交流,特举办年度"中国一上 海合作组织数字技术合作发展论坛"(以下简称 发展论坛)。

The annual China–Shanghai Cooperation Organization Digital Technology Cooperation and Development Forum (hereinafter referred to as the Development Forum) is organized to promote multi–dimensional, multi–level, and multi–type industrial integration and cooperation among SCO countries, build a multilateral ecosystem of open collaboration, and promote digital technology exchanges among SCO countries.

把握时代机遇,搭建国际合作新平台

Seize Opportunities of the Times and Build a New Platform for International Cooperation

发展论坛由工业和信息化部与上海合作组织秘书处共同主 办,中国信息通信研究院和克拉玛依市人民政府共同承办, 于 2023 年 5 月 23 至 24 日在新疆克拉玛依市举办。发展 论坛以"数聚上合、携手向远"为主题,来自俄罗斯、白 俄罗斯、阿塞拜疆、巴基斯坦、哈萨克斯坦、吉尔吉斯斯 坦、柬埔寨、蒙古国、缅甸、斯里兰卡、伊朗、印度的上 海合作组织国家的代表齐聚一堂,共商数字技术创新发展 之路,共谋数字经济合作机遇。发展论坛开幕式上,各方 代表共同见证"中国—上海合作组织大数据合作中心"正 式启用与"中国—上海合作组织大数据合作中心新疆分中 心"签约共建,进一步构筑上海合作组织数字领域合作共 赢的桥梁。

The Forum was co-hosted by the Ministry of Industry and Information Technology (MIIT) and the Shanghai Cooperation Organization (SCO) Secretariat and co-organized by the China Academy of Information and Communications Technology (CAICT) and the Karamay Municipal People's Government in Karamay, Xinjiang from May 23 to 24, 2023. With the theme of "Together We Go Further", representatives of SCO countries from Russia, Belarus, Azerbaijan, Pakistan, Kazakhstan, Kyrgyzstan, Cambodia, Mongolia, Myanmar, Sri Lanka, Iran, and India gathered together to discuss the development and innovation of digital technology and explore opportunities for digital economy cooperation. At the opening ceremony of the Forum, the representatives witnessed the official opening of the China– Shanghai Cooperation Organization Big Data Cooperation Center (BDC) and the signing of the China–Shanghai Cooperation Organization Big Data Cooperation Center Xinjiang Sub–Center, which will further build a bridge for win–win digital cooperation among SCO countries.

160 数字经济创新发展 推动数字经济创新发展,促进共同繁荣



锚定技术创新,探索交流发展新路径

Focus on Technological Innovation and Explore New Paths of Communication and Development

发展论坛采用"一主多分"的形式,在设置一个主论 坛的基础上,围绕数字技术重点领域,设置"上合之荣: 数字经济发展""上合之擎:大数据应用""上合之基: 数字基础设施""上合之擎:数字技术引领""上合 之碳:数字低碳""上合之美:数字文化"六大主题 分论坛,全力打造多领域、深层次的技术交流与国际 合作平台。汇聚创新成果,发展论坛聚焦数字基础设施、 数字技术融合应用、数字低碳等方面,结合上海合作 组织国家的共同关切,遴选出具有突出创新性、颠覆 性和引领性应用的优秀合作案例,发布《中国 – 上合 组织国家数字领域合作案例集(2023年)》,进一步推 动了上海合作组织国家在数字技术领域的经验共享, 深化数字技术领域合作。



The Forum takes the form of "one main forum and multiple sub–forums." Besides one main forum, six sub–forums were set up around key areas of digital technology, including Digital Economy Development, Big Data Application, Digital Infrastructure, Leading Role of Digital Technology, Digital Low–Carbon, and Digital Culture. The aim is to build a platform for multi–field and in–depth technical exchanges and international cooperation. Collecting innovative achievements, considering common concerns of SCO countries, and focusing on digital infrastructure, integrated application of digital technologies, and digital low–carbon, the Forum selected outstanding cooperation cases with extraordinarily innovative, disruptive, and leading applications. It released the Case Collection of Digital Cooperation Between China–SCO Countries (2023) to promote experience sharing further and deepen cooperation in digital technology among SCO countries.





聚焦数字赋能,开创普惠共享新生态

Focus on Digital Empowerment, Create New Inclusive and Sharing Ecology

发展论坛以专业性、前沿性、多元化、国际化吸引了来自10余个上海合作 组织国家的主管部门、驻华使领馆、科研机构、行业协会、领军企业及相 关国际组织代表参加,赢得了与会者的高度认可。《中国 – 上合组织国家 数字领域合作案例集(2023年)》的发布也有效推动了上海合作组织国家数 字领域产品、服务、应用、数字基础设施和解决方案方面经验共享,为上 海合作组织国家数字领域国际合作树立了标杆典范。本次发展论坛是认真 落实上海合作组织成员国开展元首理事会第二十二次会议的具体举措,有 助于打造普惠的基础设施体系,开辟数字经济合作新前景,弥合上海合作 组织国家之间的数字鸿沟,促进上海合作组织国家共生共荣。 With its professional, cutting–edge, diversified, and international nature, the Forum attracted representatives from competent authorities, embassies and consulates in China, scientific research institutions, industry associations, leading enterprises, and relevant international organizations from more than 10 SCO countries, winning high recognition from the participants. The publication of Case Collection of Digital Cooperation Between China–SCO Countries (2023) has also effectively promoted sharing experiences in the digital field of products, services, applications, infrastructure, and solutions, setting a benchmark for international cooperation in the digital field among SCO countries. The Forum is a concrete initiative to implement the 22nd Meeting of the Council of Heads of the Shanghai Cooperation Organization Member States, contributes to the construction of an inclusive infrastructure system, opens up new prospects for digital economy cooperation, bridges the digital divide among SCO countries, and promotes the symbiosis and co–prosperity of SCO countries.



工业互联网产业联盟

Alliance of Industrial Internet



工业互联网产业联盟自成立以来,持续致力于推动构建全球工业互联网产业生态

Since its establishment, Alliance of Industrial Internet has been committed to promoting the construction of a global industrial Internet ecology

申报机构 Applying Institution

中国信息通信研究院

China Academy of Information and Communications Technology

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation /

中国、美国、德国、日本 China, United States of America, Germany, Japan



164 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

其他参与机构 Other participating organizations

美国工业物联网联盟 (IIC) 德国电子电气工业协会 (ZVEI)- 工业 4.0 德国弗劳恩霍夫协会软件与系统工程研究所(Fraunhofer ISST) 日本工业价值链促进会(IVI) 日本边缘计算协会(Edgecross) 国际电工委员会(IEC) 中国通信标准化协会(CCSA) 华为技术有限公司(HUAWEI)

Industry IoT Consortium.

Industrial Internet Consortium (IIC) German Electrical and Electronic Manufacturers' Association–Platform Industry 4.0 Fraunhofer Society–ISST Industrial Value Chain Initiative (IVI) Edgecross Association International Electrotechnical Commission (IEC) China Communications Standards Association (CCSA) HUAWEI Technologies Co.Ltd. (HUAWEI)





工业互联网作为第四次工业革命的重要基石,对数 字经济与实体经济融合发展发挥着重要作用。2016 年,中国信息通信研究院联合全球143家单位,立 足全球视野,成立工业互联网产业联盟,积极推动 全球工业互联网产业发展。

Industrial Internet, as an important cornerstone of the fourth industrial revolution, plays an essential role in the integrated development of the digital economy and real economy. In 2016, the China Academy of Information and Communications Technology (CAICT) established the Alliance Industrial Internet (AII) to actively promote the development of the global industrial Internet from a global perspective, joining hands with 143 units worldwide.



工业互联网产业联盟(AII)和工业物联网联盟(IIC) 联合主办"工业互联网的未来"主题研讨会 All and IIC co-hosted the theme seminar "the Future of the Industrial Internet"

工业互联网产业联盟携手国际合作伙伴, 共同构建全球工业互联网产业生态

All Cooperates with International Partners to Build a Global Industrial Internet Ecosystem

工业互联网产业联盟广泛吸纳通用电气、西门子、博 世、三菱、高通、爱立信、英特尔、思爱普、施耐德 等国际企业。先后与美国工业物联网联盟、MulteFire 联盟、欧盟物联网创新联盟、5G产业自动化联盟、 日本工业价值链促进会、边缘计算协会等签订战略合 作协议,务实推动项目合作。

All has widely attracted international leading enterprises such as General Electric (GE), Siemens, Bosch, Mitsubishi, Qualcomm, Ericsson, Intel, SAP, and Schneider to join the alliance. All has successively signed strategic cooperation agreements with the US Industrial Internet of Things Alliance, MulteFire Alliance (MFA), EU Alliance for Internet of Things Innovation (AIOTI), 5G Alliance for Connected Industries and Automation(5G–ACIA), Japan Industrial Value Chain Initiative (IVI), and Edgecross Association to promote pragmatic project cooperation.

联盟设立总体组、技术与标准组、国际合作组等 30 余个工作组和特设组,通过每年工业互联网大会、每 季度工作组全会,参与举办工业互联网的未来国际研 讨会等一系列产业活动,与国际各方共同构建工业互 联网领域交流机制,积极与国际专家,围绕工业互联 网体系架构、关键技术、标准框架、产业发展等,经 常性展开研讨,加强与欧美重点研究成果的映射对接, 积极促进企业间合作。



工业互联网产业联盟与美、欧、日等多个国际组织 签署战略合作协议

AII signed the strategic cooperation agreements with many international organizations such as IIC, AIOTI, IVI and so on

All has set up more than 30 working groups and special groups, including the General Group, the Technology and Standards Group, and the International Cooperation and Development Group. All has worked with international parties to build a communication mechanism in the field of industrial Internet through annual industrial Internet conferences, quarterly working group plenary meetings, and a series of industrial activities such as the international seminar on the future of the industrial Internet. The Alliance has actively carried out regular discussions with international experts around the industrial Internet architecture, key technologies, standard framework, and industrial development, strengthening the mapping and docking with the key research achievements in Europe and the United States and actively promoting cooperation among enterprises.

工业互联网产业联盟多途径推动跨国研究和国际标准化建设, 促进全球工业互联网基础建设的互联互通

All promotes Cross–border Research and International Standardization through multiple channels and facilitates the Interconnection and interoperability of Global Industrial Internet Infrastructure

联盟推动中德双方组建中德工业互联网专家组,联合研制 并发布《中德工业互联网白皮书:实践与启示》英文版和 中文版。作为 GIO 主要成员,联合发布 GIO《行业数字平 台生态白皮书》。与德国专家基于前期工作成果展开深入 合作,围绕工业互联网信息模型、可信数据空间、工业数 字平台等开展联合研究,实践出一条创新性的国际间白皮 书指导研究的合作路径。

The member units of AII take the lead in international standardization organizations such as the International Telecommunication Union Telecommunication Sector (ITU-T) and International Electrotechnical Commission (IEC), actively promote international standardization works, and formally include the Industrial Internet into the international standard terminology database. Two international standards have been formed and issued, laying the foundations for the network interconnection and data exchanges of the global industrial Internet.

联盟成员单位牵头分别在国际电信联盟(ITU-T)、国际 电工委员会(IEC)等国际标准化组织,积极推动国际标 准化工作,将工业互联网(Industrial Internet)正式写入国 际标准术语库,已形成2项国际标准并发布,为全球工业 互联网的网络互联和数据互通奠定了基础。

All led the formation of the Sino–German Industrial Internet Expert Group and jointly developed and issued the English and Chinese versions of the Sino–German Industrial Internet White Paper:"I4.0 x Industrial Internet: Practices and Findings (2019 Edition)." As a significant member of GIO, All jointly issued GIO's "Industry Digital Platform Ecology White Paper." All carried out in–depth cooperation with German experts based on the results of previous work in aspects of industrial Internet information model, trusted data space, and industrial digital platforms, practicing an innovative cooperation path for research guided by international white papers.



中德工业互联网专家组联合发布《中德工业互联网白皮书》英文版和中文版 The Sino-German Industrial Internet expert Group has jointly issued the White Paper in English and Chinese versions



联盟成员单位牵头研制的两项国际标准已正式发布

Two international standards led by AII member units have been officially issued

工业互联网产业联盟为全球工业互联网基础 设施建设、全球数字化发展积极贡献智慧与 力量

All Actively Contributes Wisdom and Strength to The Construction of Global Industrial Internet Infrastructure and Global Digital Development

联盟汇聚全球 2500 余家成员单位,建立了较为全面的工 业互联网产业生态体系。目前联盟已发布 150 余份白皮书 及产业报告、建立 79 个测试床、遴选出 400 余个应用案例。 在联盟的推动下,成员单位中国信通院牵头开展数字金砖 任务组(DBTF)相关工作,促进信息通信技术基础设施 建设和创新技术应用,促进金砖国家数字化转型进程;华 为牵头发布全球首个包含六大工业互联场景的 TSN+OPC UA 测试床,推动工业互联网的网络设施发展;联通发布 了全球首款通用型 5G RedCap 商用模组,实现了轻量级 5G 模组的应用,促进全球 5G 在工业领域的规模化发展。 联盟立足促进产业发展,共享数字化发展领域信息、经验、 成果, 普及工业互联网知识与技术,为全球工业互联网发 展贡献智慧和力量。

168 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

All has brought together more than 2,500 member units around the world and established a comprehensive industrial Internet ecosystem. All has issued more than 150 white papers and industry reports, set up 79 test beds, and selected more than 400 application cases. Facilitated by All, the member unit China Academy of Information and Communications Technology (CAICT) has taken the lead in carrying out the work of the Digital BRICS Task Force (DBTF) to promote the construction of ICT infrastructure and the application of innovative technologies, and the application of digital transformation in BRICS countries; The member unit Huawei has taken the lead in releasing the world's first TSN+OPC UA test bed containing six industrial interconnection scenarios to promote the development of industrial Internet network facilities; The member unit China Unicom has released the world's first universal 5G RedCap commercial module, realizing the application of lightweight 5G module and promoting the scale development of global 5G in the industrial field. Based on the strategic objective of promoting industrial development, sharing information, experience, and achievements in the digital development field, and popularizing industrial Internet knowledge and technology, All has actively contributed wisdom and strength to the development of the global industrial Internet.



联盟支持承办 2022 年数字金砖论坛,中国、巴西、俄罗斯、 印度、南非等多国专家讨论共同讨论工业互联网

AII supported and hosted the 2022 Digital BRICS Forum, where experts from China, Brazil, Russia, India, South Africa, and other countries discussed the development of the Industrial Internet





联盟组织成员单位以分享、展示、研讨等多种形式积极参与国际活动

The member units of AII actively participate in international activities in various forms, such as information sharing, exhibition, and discussion

"建行全球撮合家"跨境智能撮合综合服务平台

CCB Match Plus Smart Matchmaking Platform

申报机构 Applying Institution

中国建设银行股份有限公司

China Construction Bank

中国建设银行 China Construction Bank

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、美国、德国、日本等44个国家和地区

44 countries and regions such as China, United States of America, Germany, Japan



建行全球撮合家: 让世界的另一头与梦想环环相扣 CCB Match Plus: Bring the world within reach

"建行全球撮合家"是中国建设银行搭建的开放共享生态,旨在解决跨境交易场景下信息不对称和交易成本高等痛点难点,为全球企业提供跨境商品、服务和项目的商机双语发布与智能匹配以及综合金融解决方案。

CCB Match Plus is an online platform built by China Construction Bank. It aims to alleviate information asymmetry and high transaction costs in cross–border transaction scenarios, providing global enterprises with cross– border business opportunities in merchandise, services, projects, intelligent matching, and comprehensive financial solutions.
全球商机资源,一键轻松触达

Global Resources, at the Touch of Your Hand

为促进全球经贸开放合作共赢,中国建设银行于 2019 年 在同业中率先推出 B2B 跨境智能撮合平台"建行全球撮 合家"。平台运用大数据等新兴技术,依托建设银行全球 机构网络和客户服务团队优势,充分发挥资源与服务连接 器作用,致力于通过跨境撮合业务,构建境内境外布局、 线上线下融合、金融非金融联通的全球化、智能化、综合 化跨境生态圈,解决企业在国际合作中面临的信息与服务 形态割裂、碎片化问题,推动数字经济创新发展。目前, 平台注册用户数已突破24万户,覆盖近50个国家和地区, 累计发布跨境商机数超 18万条,举办"RCEP 机遇与内 陆开放对接会"、"中欧光伏行业投资贸易云洽会"、"2022 年中马企业合作对接会"等跨境对接活动 260 余场。

China Construction Bank took the lead among its peers to promote global economic cooperation, launching the B2B cross-border intelligent matchmaking platform CCB Match Plus in 2019. Leveraging the advantages of new technologies like big data and the Bank's domestic and overseas network and service team, the platform acts as a connector of resources and services, establishing a global, intelligent, and comprehensive crossborder ecosystem with domestic and overseas layout, online and offline integration, and financial and non-financial connectivity, solving the problem of information and service fragmentation faced by enterprises in international cooperation, facilitating innovative development in the digital economy. The platform has over 240,000 registered users, covering around 50 countries and regions, with more than 180,000 cross-border business opportunities posted. So far, the platform has held over 260 cross-border cooperative events, including RCEP Opportunities for Inland China, China-Euro Photovoltaic Industry Investment and Trading Conference, and Malaysia-China B2B Business Matching Session.



第 19 届中国一东盟博览会期间,建行依托 "建行全球撮合家",与中马政府联合举办企业合作对接会 During the 19th CAEXPO, China Construction Bank co-hosted a Malaysia-China B2B Business Matching Session with Chinese and Malaysian governments via CCB Match Plus

深耕供需撮合场景,共享国际发展 机遇

The Scenario–based Comprehensive Supply and Demand Matchmaking Services Enabling Enterprises to Share International Development Opportunities

"建行全球撮合家"平台践行开放、普惠、共 享的"新金融"发展理念,整合多方资源,以 "科技+数据"搭建开放共享生态,通过分 设跨境商品、服务和项目的信息发布模板及智 能撮合规则,为全球企业提供跨境商机双语发 布,实现商机智能推送和撮合匹配,促进全面 对外开放,助力全球共享发展机遇。同时,平 台针对"一带一路"、"粤港澳大湾区"、"中 欧班列"、"跨境招商引资"等场景建设主题 专区板块,通过整合境内外、多渠道、多维度 数据资源,集中展示相关需求、商机、政策及 资讯信息,同步配套建设银行专业金融服务方 案,辅以法律服务、知识产权、财税筹划、商 标品牌等专业服务,一站式支持外贸企业拓展 国际合作。通过智能撮合与场景搭建,平台助 力中资企业"走出去",帮助境外客户开拓中 国市场,构建国际市场主体广泛参与、合作共 赢的生态平台。



CCB Match Plus platform upholds the principles of openness, inclusiveness, and shared development in the new finance concept. The platform integrates multiple resources, utilizing "technology + data" to establish an open and sharing ecosystem, providing information release of cross–border merchandise, services, and projects in both Chinese and English, intelligent and accurate matching, and comprehensive financial solutions to global enterprises. To promote comprehensive opening to the world, the platform establishes different sections related to the Belt and Road Initiative, the Greater Bay Area, the China–Europe Railway Express, and cross–border investment. CCB Match Plus integrates data resources across different channels, regions, and dimensions, showcasing relevant demands, business opportunities, policies, and information while providing integrated financial service solutions from China Construction Bank. The platform also supports the release of cross–border services to provide one–stop support to global enterprises for international cooperation. Through scenario–based intelligent matchmaking, the platform assists Chinese companies to "go global" while helping overseas enterprises explore the Chinese market, building an ecosystem where participants worldwide can achieve win–win cooperation.

发挥网络效应,赋能全球用户

A Platform that Connects and Empowers Global Users

自上线以来, "建行全球撮合家"注册用户数已突破24 万户,累计发布跨境商机数超18万条。2022年,平台举 办首届撮合节,期间举办5场专场活动,共吸引来自21 个国家和地区的近400家企业报名参加,组织200余场 一对一洽谈,达成30余项合作意向。新冠疫情期间,平 台为医疗防疫撮合开辟快捷通道,助力各国政府、医疗机 构、生产贸易企业等实现医疗防疫物资、原材料、生产线、 仓储物流等线上对接,成功撮合各类医疗防疫物资出口2 亿余件,交易金额累计约10亿元人民币。 Since its launch, the CCB Match Plus platform has accumulated over 240,000 registered users with more than 180,000 cross–border business opportunities posted. In 2022, the venue hosted its inaugural Matchmaking Festival, collaborating with 41 domestic and overseas institutions of the Group to hold five special events. These events attracted nearly 400 companies from 21 countries and regions, with over 200 one–on– one negotiations organized and more than 30 cooperation intentions achieved. During the Covid–19 pandemic period, the platform established a fast channel for medical supplies and personal protective equipment matchmaking, enabling domestic and international governments, medical institutions, and manufacturing and trading companies to meet online to negotiate over medical supplies, raw materials, production line, warehouse, and logistics, with over 5,500 pieces of supply and demand information posted, over 200 million units of medical supplies successfully exported, reaching a cumulative transaction amount of approximately 1 billion RMB.



2020 年 3 月, "建行全球撮合家"医疗防疫物资跨境撮合正式启动, 对接境内外抗疫物资供需,助力国际战疫合作

In March 2020, the CCB Match Plus Medical Sourcing Section was launched, connecting the global supply and demand helping international cooperation in the fight against COVID-19

踔厉奋发续辉煌,奋楫笃行践初心

Striving for Brilliance, Pursuit with Determination

中国建设银行致力于通过跨境撮合业务,构建境内境外布 局、线上线下融合、金融非金融联通的全球化、智能化、 综合化跨境生态圈。自平台上线以来,先后获得中国国际 服务贸易交易会 2020 全球服务示范案例、中国 – 东盟抗 疫中经济合作 2020 企业贡献奖、2020 年中国银行业金 融科技应用成果大赛三等奖、"2022 年"一带一路"媒 体合作论坛'一带一路'建设案例"奖、《亚洲银行家》 2022 中国最佳商业生态平台等荣誉奖项。未来,平台还 将不断优化资源整合能力,探索跨境贸易和投资全链条融 合发展新模式,为构建"双循环"新发展格局提供新路径 和新动力。



2022 年 8 月, "建行全球撮合家" 获评人民日报社 2022 一带一路媒体合作论坛 "一带一路"建设案例

In August 2022, CCB Match Plus was selected as a "Belt and Road" Construction Case by the People's Daily during the 2022 Belt and Road Media Cooperation Forum



Business Ecosystem Platform in China by the Asian Banker

China Construction Bank is dedicated to establishing a global, intelligent, comprehensive cross-border ecosystem with domestic and overseas layouts, online and offline integration, and financial and non-financial connectivity. Since its launch, the platform has received several prestigious awards, including the 2020 Global Service Demonstration Case Award from the China International Fair for Trade in Services, the 2020 Enterprise Contribution Award for Economic Cooperation in the Fight Against COVID-19 between China and ASEAN, the third prize in the 2020 China Banking Industry Financial Technology Application Achievement Competition, the "Belt and Road" Construction Case Award at the 2022 "Belt and Road" Media Cooperation Forum, and the 2022 Best Business Ecosystem Platform in China by Asian Banker. The CCB Match Plus platform will continue to enhance its resource integration capabilities. explore new models for the integrated development of cross-border trade, and provide new paths and momentum for establishing a "dual circulation" development pattern.

极智嘉: 智能物流机器人助力全球物流行业提升数字化、智能化水平

Geek+: Smart Logistics Robots Elevating Global Logistics to New Heights of Digitalization and Intelligence





中国、美国、德国、新加坡等 40 个国家和地区 40 countries and regions such as China, United States of America, Germany, Singapore

英国零售巨头 NEXT 通过部署 250 台极智嘉机器人, 实现仓储物流智能升级 UK retail giant NEXT achieves warehouse logistics smart upgrade with 250 Geek+ robots

随着电商等新商业模式的崛起,全球消费者对敏捷柔性物流 供应链的需求与日俱增。极智嘉"高人效、高存储、高吞吐、 高柔性"特性的全品类物流机器人产品线和解决方案,助力 全球物流行业实现智能化升级。

As new business models like e-commerce continue to rise, global consumers' demand for agile and flexible supply chain logistics proliferates. Geek+'s comprehensive line of logistics robots and solutions, known for their high efficiency, storage capacity, throughput, and flexibility, empowers the global logistics industry to achieve digital upgrades.

从中国到全球 40 多国,推动智能物 流全球规模化应用

From China to over 40 countries worldwide, promoting large-scale adoption of smart logistics

作为最早成功出海的中国物流机器人企业,极智 嘉 2017 年领先行业率先启动全球化业务,目前在 美国、德国等七个国家和地区设立了区域总部, 服务于耐克、沃尔玛、西门子、宝马、DHL等超 700家大客户。在专利、产品认证、安全、数据隐私、 当地团队、售后服务体系等方面建立了强大的海 外市场先发优势。

As one of the earliest Chinese logistics robot companies to successfully expand internationally, Geek+ initiated its global business in 2017. It has since established regional headquarters in seven countries and regions, including the United States and Germany. They serve over 700 major clients, such as Nike, Walmart, Siemens, BMW, and DHL. Geek+ has built a solid international market advantage in patents, product certifications, safety, data privacy, local teams, and after–sales service.

全球知名零售品牌客户在极智嘉物流机器人解决方案的赋 能下,仓库人员的平均劳动生产力翻三倍,库存容量提升 了40%,通过4年14次复购,全球13国项目复制,实 现了从中国到全球、从传统物流到智慧物流的全面转型。 全球锂电龙头3年21次复购超500台AMR,领航智能 制造从中国复制到全球。

With the empowerment of Geek+ logistics robot solutions, globally renowned retail brands have witnessed a threefold increase in warehouse staff productivity, a 40% increase in inventory capacity, and a successful transformation from traditional to smart logistics, as evidenced by 14 repurchases in four years and replication of projects in 13 countries worldwide. A leading lithium battery manufacturer has made 21 repurchases over three years, totaling more than 500 robots, thus extending the reach of smart manufacturing from China to international markets.



全球知名零售品牌客户在全球 13 国部署 极智嘉智能机器人方案,引领零售行业的物流智能化发展 A globally-renowned retail brand has deployed Geek+ solutions in 13 countries, leading the retail industry's transformation toward smart logistics

产品 + 技术协同创新,持续推动全球物流行 业智慧化发展

Product and technology synergies, driving ongoing Intelligence of the global logistics industry

极智嘉拥有全品类物流机器人产品线和解决方案,既包括仓储场景中的 存储、拣选和分拣的全方案能力,也包括制造场景的工业搬运机器人和 无人叉车等产品。此外,建立了行业通用的机器人本体软硬件技术平台 Matrix和机器人集群管理系统平台 RMS,保证技术产品的持续创新能力。

Geek+ boasts a comprehensive line of logistics robot products and solutions, encompassing the storage, picking, and sorting capabilities for warehouse scenarios and the materials handling robots and driverless forklifts for manufacturing scenarios. They have also established industry– standard robot core hardware and software technology platforms, namely Matrix and Robot Management System (RMS), ensuring continuous innovation in their technical products. 独创的新一代货架到人拣选方案 PopPick, 协助全球跨境电商基础设施服 务商纵腾集团, 提高拣选效率达人工作业模式的 3~4 倍, 为未来预留了 200% 的出入库能力; 协助知名跨境冷链企业墨谷供应链科技存储密度提 升 4 倍, 人效提升 4 倍, 一站式解决了存储、效率、柔性和成本无法兼 得的痛点,并获评移动机器人产业联盟双年度移动机器人创新产品奖、 物流时代周刊物流与供应链解决方案 TOP50。

Their innovative next-generation Shelf-to-Person solution, PopPick, has significantly improved picking efficiency for global cross-border e-commerce infrastructure provider ZTO Express, achieving 3–4 times the efficiency of manual labor and doubling the storage capacity for future needs. Geek+ has also assisted a well-known cross-border cold chain company, MOOGO, in achieving a fourfold increase in storage density and a fourfold increase in labor efficiency, addressing storage, efficiency, flexibility, and cost challenges simultaneously. Their achievements have earned them recognition, including the Mobile Robot Industry Alliance's Biennial Innovation Product Award and a place in the Logistics Times' Top 50 Logistics and Supply Chain Solutions.



极智嘉全品类物流机器人产品线 Geek+ comprehensive line of logistics robots

跨境冷链企业墨谷供应链科技 使用极智嘉新一代货架到人拣选方案 Cross-border cold chain company MOOGO leverages Geek+'s nextgeneration Shelf-to-Person solution

构筑数智化敏捷供应链,赋能全球数字经济 高质量发展

Building agile, data-driven supply chains, empowering high-quality global digital economy growth

极智嘉以绝对领先优势成为全球最大的仓储机器人公司, 在全球超 40 个国家拥有销售、运营和服务能力,已连续 4 年保持全球 AMR 市场份额第一,2021 年位居全球仓储 物流机器人市场的业务规模榜首,市场份额超过第二名约 1 倍。通过提供全品类物流机器人产品线及方案,提升仓 储物流与工厂物流的柔性和智能化,推动数字技术与实体 经济的深度融合。疫情期间,极智嘉 AMR 不仅助力众多 零售客户成功应对爆发的电商订单,在人力紧缺的情况下 保持仓库的高效运营,还帮助医院和医药企业实现紧急医 疗用品的无人化高效存取和无接触配送。此外,极智嘉积 极履行自身社会责任,将绿色理念贯穿到生产和交付全过 程,并赋能众多客户打造绿色供应链,实现可持续发展。



中国领先的专业体育用品企业特步与极智嘉合作完成 特步福建泉州仓智能升级,助推绿色仓储

China's leading professional sports goods company, Xtep, has partnered with Geek+ to complete the intelligent upgrade of Xtep's Fujian Quanzhou warehouse, contributing to green warehousing



极智嘉机器人可在黑暗环境中 7x24 小时工作, 助力客户实现"黑灯仓库"或"黑灯工厂"建设, 大幅降低能源消耗

Geek+ robots can operate 24/7 in lights-off environments, enabling customers to achieve "lights-off warehouses" or "lights-off factories," significantly reducing energy consumption

Geek+ has established itself as the world's largest mobile robot company for order fulfillment, with a presence in over 40 countries, maintaining the top market share in the global autonomous mobile robot market for four consecutive years. In 2021, it ranked first in business scale in the global market of mobile robots for order fulfillment, with a market share roughly double that of the second-place competitor. By offering a comprehensive line of logistics robots. Geek+ enhances the flexibility and intelligence of warehouse and factory logistics, facilitating the deep integration of digital technology and the physical economy. During the pandemic, Geek+'s AMRs helped numerous retail clients manage surging e-commerce orders and maintain efficient warehouse operations in the face of labor shortages but also facilitated the efficient and contactless storage and distribution of emergency medical supplies for hospitals and pharmaceutical companies. Furthermore, Geek+ actively fulfills its social responsibility by incorporating green principles into the production and delivery process, enabling many clients to build green supply chains and achieve sustainability.

为小微企业便捷通关,注入民生动力(民生快贷-关税保函)

Contributing Minsheng Power in Facilitating Customs Clearance for Micro and Small Enterprises (Minsheng Express Loan – Letter of Guarantee for Customs Duty)



申报机构 Applying Institution

中国民生银行股份有限公司总行交易银行部、 生态金融部

The Transaction Banking Department and the Digital Finance Innovation Department of the Head Office of China Minsheng Banking Corporation Limited



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation 」

中国、美国、韩国、越南 China, United States of America, Republic of Korea, Vietnam

民生银行"民生快贷 - 关税保函"的宣传单页 A promotional flyer of the product "Minsheng Express Loan--Letter of Guarantee for Customs Duty" of China Minsheng Bank

为提升全球贸易通关便利化水平,民生银行坚持创新驱动,运用数字化技术提升国际业务服务水平, 推出"民生快贷 – 关税保函"产品,助力小微外贸企业便捷通关。

To facilitate the customs clearance of global trade, China Minsheng Bank has steadfastly embraced the innovation-driven approach, utilized digital technology to enhance international business service capability, and launched the product of "Minsheng Express Loan – Letter of Guarantee (L/G) for Customs Duty," in a bid to help micro- and small-sized enterprises (MSEs) engaged in foreign trade to achieve quick customs clearance.

关税保函护航企业"货物通关"通途

The L/G for Customs Duty Ensures a Smooth Pathway for "Customs Clearance of Goods"

促进跨境贸易便利化是"实行高水平对外开发,促进外贸 外资稳中提质"的重要环节,提升通关的便利化水平,将 能有效促进跨境贸易更快捷、畅通开展。为此,中国民生 银行积极配合海关税款改革进程,充分发挥在进出口结算 和关税保函领域的专业优势,坚持科技引领、创新驱动, 同步推出海关税款担保保函,通过与海关总署、人民银行、 国家口岸管理办公室等单位通过电子传输系统,配合海关 进行关税保函业务全流程电子化信息传输,实现了税款担 保数据的"银行即开、海关即收、企业即用",有效提升 企业通关便利化水平。

Facilitating cross-border trade is essential to the strategy of "expanding foreign trade and attracting foreign investment at a higher level while promoting stable and high-quality development." Enhancing the convenience of customs clearance will effectively promote faster and smoother cross-border trade. Therefore, China Minsheng Bank has taken technology and innovation as the driving forces, actively followed the customs tax reform process, leveraged its professional expertise in import and export settlement and guarantee for customs duty, and concurrently launched its "L/G for Customs Duty" product. Through the electronic transmission systems in cooperation with the General Administration of Customs, the People's Bank of China, and the National Office of Port Administration, this product enables the complete electronic transmission of information in regard to the L/C for customs duty business and realizes a seamless process of "instant issuance by the Bank, immediate receipt by the customs, and immediate use by enterprises," which significantly improves the convenience of customs clearance for enterprises.



同时,为将通关便利化辐射至小微企业,民生银行充分利用大数据和人工智能技术,突破了传统银行的授信模式,推出"民生快贷 – 关税保函"小微企业专属产品,让小微企业关税保函服务触手可及。

In the meantime, to extend the customs clearance facilitation to MSEs, China Minsheng Bank has made full use of big data and AI technologies to launch the "Minsheng Express Loan – L/G for Customs Duty," an exclusive product for MSEs, to make them easily access the service of L/G for customs duty.

数字化践行普惠金融

Practicing Inclusive Finance with Digitization

中国民生银行积极参与促进贸易便利化,2019 年作为首批4家试点银行中唯一股份制银行, 加入中国国际贸易"单一窗口"试点,为企业 提供跨境汇款等金融服务。2022年,民生银行 聚焦小微进口企业便捷通关需求,基于"单一 窗口"平台,推出"民生快贷 – 关税保函"产 品。产品开发了场景专属授信审批模型和全流 程数字化风控体系,打破了以往"财务数据" 为标尺的企业信用评价标准,基于场景数据还 原企业经营,解决了小微企业融资难的问题。 同时运用数字技术重塑了全线上化的作业流程, 支持从开户、申请、审批、合同签署、保函开 立全流程的线上化服务,企业提交申请后秒级 批额,1小时内可开出保函,且支持保函即开即 用,助力小微企业快速通关。



民生银行打造"跨境一家"品牌, 为小微企业便利融资提供数字化解决方案 China Minsheng Bank has launched the professional cross-border service brand "All Across the World" to provide scenario-based digital solutions for MSEs

China Minsheng Bank has been actively participating in trade facilitation. In 2019, it joined the "Single Window" pilot program for China's international trade as the only joint-stock bank in the first four pilot banks to provide enterprises with cross-border remittances and other financial services. In 2022, On top of the "Single Window" platform, the bank introduced the "Minsheng Express Loan – L/G/ for Customs Duty" product focused on the needs of import MSEs for convenient customs clearance. For this product, the bank has developed a scenario-specific credit approval model and a whole-process digital risk control system, breaking through the traditional credit assessment standards based solely on financial data to truly reflect the operation status of enterprises based on scenario-based data, thus resolving the financing difficulties of MSEs. The bank has also reshaped the fully online operation process with digital technologies, which support the whole-process online services, including account opening, application, approval, contract signing, and L/G issuance. A guarantee limit can be approved within seconds after an application is submitted. An L/G can be issued within one hour for immediate use, greatly facilitating the rapid customs clearance of MSEs.

打通小微企业进出口绿色通道

Building green channels for import and export by MSEs

"真是太便捷了!" 宁波某从事塑料原料及制品进口贸易 企业,在使用民生快贷 – 关税保函后,不禁感叹道。此前, 为确保按期交货,A企业进口货物时需提前备好缴税资金, 资金紧张时,还需贷款支付海关税款,资金压力大。在使 用民生快贷 – 关税保函产品后,企业进口货物时,可直接 占用保函担保额度完成通关,待进口货物销售回款后再缴 纳海关税款,不但加快了货物通关速度,缓解了资金压力, 还降低了财务成本。

"This is amazingly convenient!" exclaimed a trading company in Ningbo engaged in importing plastic raw materials and products after using the "Minsheng Express Loan – L/G for Customs Duty" product. In the past, company A had to prepare tax payment funds in advance when importing goods. In case of fund shortage, it had to apply for loans to pay customs duty, sometimes facing significant financial pressure. After using the product "Minsheng Express Loan – L/G for Customs Duty," when importing goods, company A can now directly take up the guarantee limit for customs

clearance and pay the customs duty later with the money collected from selling goods. It speeds up the customs clearance process, relieves the pressure of funds, and reduces financial costs.

同时,民生快贷 – 关税保函产品支持全流程线上操作,打破了银行服务在时间、空间和人员上的限制,通过提高银行内部业务处理智能化水平,提升办理效率,确保更广大像A企业一样的小微企业能够享受到关税保函服务,为小微企业快速发展提供金融动力。

Moreover, the "Minsheng Express Loan – L/G/ for Customs Duty" product supports whole–process online operations, breaking the limitation of traditional banking services in terms of time, space, and personnel. It improves efficiency and ensures that a broader range of MSEs, like Company A, can access the services of L/G for customs duty by enhancing the intelligent internal processing of businesses within the Bank. This, in turn, provides financial impetus for the rapid development of MSEs.



小微虽小 亦能绽放光芒

民生银行为小微外贸企业提供高效、 便捷的金融服务

Minsheng Bank provides efficient and convenient financial services for foreign trade MSEs

推动数字普惠金融技术共享,蚂蚁助力深化数字丝路建设

Promoting the Sharing of Inclusive Financial Technology and Ant Group's Assistance in Deepening the Construction of the Digital Silk Road



蚂蚁集团自主研发了一套全球多国适用的数字身份认证方案,实现了 身份精准识别、全链路安全反诈、数据安全与隐私保护三个方面的可 信认证,助力一带一路国家和地区实现移动支付普及及数字普惠金融 安全。

Ant Group has independently developed a globally applicable digital identity authentication solution, which achieves trustworthy authentication in three aspects: precise identification of identity, end-to-end security against fraud, and data security & privacy protection. The solution helps countries and regions along the Belt and Road Initiative achieve widespread adoption of mobile payments and secure inclusive financial services.

共享数字技术,助力弥合移动支付接入性鸿沟

Sharing Digital Technology to Bridge the Gap in Mobile Payment Access

在"一带一路"众多国家和地区的数字化转型中,金融基础 设施和安全技术相对薄弱,数字服务的高质量接入和大规模 普及受到限制。当地金融、支付等机构在数字支付转型中也 面临可信应用与安全保障的挑战,其中最核心的是数字身份 认证问题,既在线上开户/注册以及其他业务办理时,需要 正确判断"你是谁"(身份识别)和"你是你"(欺诈识别)。 蚂蚁集团自2017年起,共享可信数字身份认证技术,为印 尼最大银行 Mandiri、马来西亚最大银行 Maybank 等金融机 构以及印尼 DANA、菲律宾 GCash、泰国 TrueMoney、孟加 拉 bKash 等多国电子钱包在内的上百家合作伙伴提供技术支 持,助力当地的金融、保险、电信和公共服务等领域的数字 业态高质量发展。

In the digital tansformation of many countries and regions along the Belt and Road Initiative, financial infrastructure and security technology are relatively weak, limiting the high-guality access and widespread adoption of digital services. Local financial and payment institutions also face challenges in trusted applications and security assurance during the tansformation of digital payments. The most crucial issue is digital identity authentication, which requires accurate identification of "who you are" (identity recognition) and "you are yourself" (fraud recognition) when opening accounts/registrations online and conducting other business transactions. Since 2017, Ant Group has been sharing trusted digital identity authentication technology to provide technical support to hundreds of partners, including Indonesia' s largest bank Mandiri, Malaysia's largest bank Maybank, and electronic wallets such as DANA in Indonesia, GCash in the Philippines, TrueMoney in Thailand, and bKash in Bangladesh. This assistance promotes the high-guality development of digital formats in the finance, insurance, telecommunications, and public services sectors in these local areas.



蚂蚁助力 bKash 技术建设 其获得孟加拉国总理颁发的"金融科技先锋奖"

Ant Group' s technical support to bKash helped it won the "Financial Technology Pioneer Award" awarded by the Prime Minister of Bangladesh



菲律宾本地钱包 GCash 使用蚂蚁的数字身份认证技术 Philippines' local e-wallet platform GCash employs Ant Group's digital identity authentication technology

创新安全技术,构建全球数字金融安全 屏隨

Innovating Security Technology to Build a Global Digital Financial Security Barrier

蚂蚁在一带一路国际合作中践行"技术出海+赋能 当地合作伙伴"的模式,旨在构建规范、高效、公 平、开放和安全的数字环境。在可信数字身份认证 方案中,蚂蚁运用计算机视觉、大数据技术及智能 风控手段,克服面临不同肤色、不同文化背景的人 种差异,全球证件种类繁多、黑产攻击手法多样化 等挑战,实现认证系统算法、链路、隐私、认证结 果的安全可信,认证准确率高达 99.9%,认证速度 实现秒级返回。该技术方案获得安永会计师事务所 出具的 SOC2 Type2 报告,在安全性上得到国际权 威认可;获得吴文俊人工智能奖自然科学奖一等奖, 在技术先进性上得到了学术界认可。这套安全和创 新兼具的技术有效提升了数字丝路的安全水平,有 利于国际合作伙伴间信任关系的建立。

Ant Group practice the model of "technology going global + empowering local partners" in international cooperation along the Belt and Road, aiming to build a standardized, efficient, fair, open, and secure digital environment. In the trusted digital identity authentication solution. Ant Group utilizes computer vision, big data technology, and intelligent risk control methods to overcome challenges such as racial differences, diverse global document type, and various hacker attack techniques. This ensures the security and trustworthiness of the authentication systems algorithms, links, privacy, and results. The accuracy rate of authentication reaches 99.9%, and the authentication speed achieves a response time of seconds. This technology solution has obtained the SOC2 Type2 report issued by Ernst & Young LLP, gaining international recognition for its security. It has also won the first prize in the Wu Wenjun Al Science & Technology Award in the category of natural sciences, receiving recognition from the academic community for its technological advancement. This secure and innovative technology effectively enhances the security level of the digital Silk Road and facilitates the establishment of trust relationships among international partners.



印尼电子钱包 DANA 使用蚂蚁技术进行身份注册认证页面 Image of conducting identity registration and authentication by the Indonesian e-wallet DANA employing Ant Group's technology

引领国际标准,共享数字技术发展红利

Leading International Standards and Sharing the Dividends of Digital Technology Development

蚂蚁集团牵头发布 ISO 5158:2023《移动金融服务客户身份鉴别指 南》国际标准,填补了 ISO 在客户身份认证上的标准空白,在移 动金融领域缓解了对全球唯一自然人识别码的需求,可帮助移动 金融服务提供商基于不同需求,选择合适的客户身份鉴别方案。 同时,通过共享数字技术帮助一带一路地区应对疫情、自然灾害 等突发公共事件而导致的经济难题,化解了民众生活的困难。疫 情期间帮助孟加拉国 500 万个家庭实现远程开户,当地政府通过 本地最大的移动支付平台 bKash,向失去收入来源的家庭发放援 助金,也因此,在 2021 年获得了 IDC 金融科技真实价值奖。菲 律宾本地钱包 GCash 使用蚂蚁的数字身份认证技术,开户时间从 原来的一周降到只需要在家操作 3 分钟。GCash 的注册用户数超 过该技术帮助政府部门发放了 3.32 亿美金,为超过 200 万人提供 经济补贴。 Ant Group has taken the lead in releasing the ISO 5158:2023 "Guidelines for Customer Identification in Mobile Financial Services" international standard, filling the gap in ISO standards for customer identification. In the field of mobile finance, it alleviates the demand for a globally unique natural person identification code and helps mobile financial service providers choose suitable customer identification shemes based on different needs. At the same time, through sharing digital technology, it helps the Belt and Road regions cope with economic difficulties caused by public emergencies such as epidemics and natural disasters, and resolves the hardship of people's lives. During the COVID–19 pandemic, Ant Group helped 5 million households in Bangladesh to open accounts remotely, and the local government provided assistance to families who lost their sources of income through the largest local mobile payment platform, bKash. As a result, it won the IDC FinTech Rankings Real Results Awards in 2021. The local e–wallet GCash in the Philippines uses Ant Group's digital identity authentication technology, reducing the account opening time from one week to just 3 minutes of operation at home. GCash has over 66 million registered users, with one out of every 1.7 Filipinos using it. During the epidemic, this technology helped government departments distribute \$332 million in economic subsidies to over 2 million people.



蚂蚁技术在算法安全、链路安全、隐私安全、认证结果安全可信等多方面均有重大突破,获得多项国际标准认证,其中蚂蚁集团牵头发布了 ISO 5158:2023 标准

Ant Group has made significant breakthroughs in algorithm security, link security, privacy security and trusted authentication results. Ant Group has obtained multiple international standard certifications. Among them, It has taken the lead in releasing the ISO 5158:2023 standard

元宇宙技术重塑客户电信业务体验,助力运营商高阶运营自智

The Metaverse Re-Invents Telco Service Experience and Assists Autonomous Operations to Higher Level



本案例展示国际电信运营商通过5G、 Al、数字孪生等前沿技术融合创新, 推动全球数字化转型:对外建立可信 的客户数字化身,解锁业务运营全新 体验,提升客户满意度、忠诚度;对 内赋能端到端、全业务感知监测诊断 和运维保障,实现云网业务运营自智。

This case demonstrates how telcos leverage cutting–edge technologies such as 5G, AI, and digital twins to integrate and innovate to drive global digital transformation. Externally, by developing and prototyping a human–like intelligent digital avatar with a trusted identity from the customer, it becomes a focal touch point for customers to ensure the total experience in telco Metaverse, helping to enhance the customer experience and drive loyalty to the company brand. Internally, end–to–end, comprehensive service experience monitoring, diagnosis, and O&M assurance can be empowered, enabling cloud and network autonomous operation.

沉浸式体验,本土化服务

Immersive experience and localized services

本案例基于元宇宙技术,创新现实世界和虚拟世界融合的 电信业务场景应用。通过建立拥有客户完整数据所有权和 可信身份的客户智能数字化身,作为电信运营商外部客户 及内部客户(运维人员)在现实世界和虚拟世界交互界面 和贴心助手,构建创新的应用场景,重塑电信业务,提高 电信运营商的运营效率,加速电信运营商的数字化转型, 提升企业价值。

This case revolves around the creation of valuable scenarios within the telco metaverse. By developing and prototyping a human–like intelligent digital avatar that ensures full data ownership and a trusted identity for customers, we established a central touchpoint connecting customers with employees. The initiative aimed to enhance the overall experience within the telco metaverse. Through this process, we've successfully devised valuable scenarios demonstrating how telcos can innovate metaverse applications, reinvent their business models, expedite their transformation into digital service providers, and ultimately enhance enterprise value.



端到端移动业务感知监测分析系统 End-to-End Mobile Services Experience Monitoring and Analysis System



本案例因地制宜,充分考虑网络建设成熟度、重点业务关 注度等区域差异,建设符合本地特点的业务感知监测分析 系统。2017 年系统部署于中国电信集团,对接 31 省实现 4G、5G 数据业务及 VoLTE 语音业务的感知分析诊断,有 效支撑网络运营、市场营销、客户服务。2021 年部署于菲 律宾 DITO,数据覆盖菲律宾全国所有大区,有效支撑质差 小区的整治提升,实现业务感知三网对比排名至第二名。

This case fully considers the regional differences, such as the maturity level of network infrastructure and the priority or major services, to develop a service experience monitoring and analysis system that aligns with local characteristics. The system has been deployed at China Telecom since 2017, providing service experience analysis and diagnosis for 4G, 5G data services, and VoLTE voice services across all 31 provinces. It effectively supports network operations, marketing, and customer service. In 2021, the system was applied at DITO Telecommunity in the Philippines, covering all regions in the country. It effectively supports the improvement of poor service quality cells and ranks second in the service experience comparison among the nation's major telecom operators.

多元化技术保障,创新性实践落地

Diversified technological support and innovative practical application

本案例创新性主要体现在以下方面:

The innovation of this case mainly includes the following aspects:

(1)通过区块链技术、数字孪生技术、GPT、RL等 技术构建具有可信的去中心化身份、拥有客户数据的 完整所有权的智能的客户数字化身;

(1) Design and demonstrate a human–like intelligent digital avatar with full data ownership and trusted customer identity. We use technologies such as the digital twin of the customer, decentralized identity based on blockchain, generative AI, GPT and reinforce learning;

(2)构建符合客户特征的个性化千人千面虚拟营业厅 场景,为客户提供差异化、个性化业务体验,赋能企 业营销;

(2) Create innovative use scenarios for telcos to implement a dynamic and personalized metaverse telco business hall. It allows customers to immerse themselves in a differentiated and personalized interactive experience, enhancing enterprise business growth efficiently and effectively; (3)构建虚拟智能机房,提供设备维护操作提醒和 可视化专家远程协作机制,提升运维效率,赋能企业 运营;

(3) Additionally, augmented reality displays is utilized to create a metaverse data center with real-time information and analytics of equipment and systems. It improves situational awareness and decision-making and enhances collaboration and communication between data center personnel. These advancements contribute to enhanced efficiency and empowered operations within telcos;

(4)以业务感知为触发点,构建电信全业务端到端 感知质量评价模型,指标体系和系统,并基于大数据 和 AI 技术,进行故障智能分析诊断、智能预测预警, 联动工单、客服等系统等实现感知监控、派单、闭环 全流程自动化;

(4) Focusing on customer experience, a comprehensive end-to-end service experience evaluation model, metrics and analysis system are built. Based on big data and AI technology, the system conducts intelligent fault root cause analysis and diagnosis, as well as intelligent prediction and warning. It is also linked with the work order system and customer service system, achieving end-to-end automated closed-loop service experience monitoring and dispatching;



通过元宇宙数据中心的协作 提高工作效率和质量 Improve work efficiency and quality through collaboration in metaverse data center (5) 拉通 BMO 域数据,实现以三中台一底座为基础的新一代大数据融合,在国际电信运营商实践落地"数据中台 – 能 力中心 – 应用场景"的分层解耦设计理念。

(5) Pull through the BMO domain data, achieve a new generation of big data integration based on three middle centers and one base, and practice the hierarchical decoupling scheme of "data center – capability center – application scenario" in international telecom operators.



质差根因定位分析 Root cause analysis of network fault

内外兼修,贡献中国电信软实力,推动数字 经济创新发展

Contributing China Telecom's soft power, promoting innovation and development in digital economy

在外部客户服务领域,本案例以电信业务为切入,使用元 宇宙技术建立可信的客户化身和电信业务创新应用场景。 客户化身为客户和企业交互带来便利,为运营商在现实世 界的业务运营提供参考,为客户决策提供帮助,提升客户 感知,助力企业发展。 This case is primarily focused on the telecommunications industry. By establishing a reliable customer avatar and implementing innovative application scenarios within the teleco metaverse, it serves as a valuable reference for teleco businesses in the real world. The aim is to assist customers in making informed decisions, enhance their perception of telecos, and contribute to the growth and development of the telecommunications sector.

该方式可扩展到全世界各行各业,例如在金融行业成为客 户的理财助手,在制造行业让客户数字化身参与产品设计, 为产品改良提供数据等。

190 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

The methodology employed in this project can be extended to various industries worldwide. For instance, in the financial industry, a customer avatar can serve as a financial assistant, providing guidance and support to customers. In the manufacturing industry, customers' digital avatars can be involved in the product design process, providing valuable data for product improvement.

在内部智能运维领域,中国电信在全行业率先构建 全业务端到端感知分析一级系统,实现联动生产、 智能判障、降本增效。

In the field of internal autonomous operation and maintenance, China Telecom builds a comprehensive end-to-end experience monitoring and analysis system for all services in telco industry. This system is linked with other production systems and achieves intelligent fault diagnosis, cost reduction and efficiency increase.

同时,中国电信将成熟经验贡献于国际同行,系统 在菲律宾 DITO 现网部署应用,助力 DITO 智慧运营。 中国电信与国际电信运营商紧密合作,共同推进数 字化能力落地应用,有效支撑 PTO 绿地项目建设。



多维电信营业厅三维环境下的个性化沉浸式体验 Personalized immersive experience in three-dimensional environment of multi-dimensional telecom business hall



At the same time, China Telecom has contributed its mature experience to international counterparts and deployed the system in DITO's production network in Philippines, supporting DITO's autonomous operations. China Telecom works closely with overseas operators to jointly promote the landing and application of digital capabilities, effectively supporting the construction of PTO Greenland project.

以上经验和成果,将有效推进中国电信持续 构筑云网融合智能内生能力,在业界率先实 现 2025 年基本达到运营自智 L4 整体目标, 助力全球数字经济发展。

The above experience and achievements will effectively promote China Telecom to continually build the autonomous operation capabilities of cloud-network integration and achieve the goal of level 4 by 2025, contributing to the global digital economy.

"欧数中算"数据安全计算平台

"EUCN-S" Platform: Secure Computing Platform of EU Data with Resources in China

"欧数中算"数据安全计算平台

"EUCN-S " Platform: Secure Computing Platform of EU Data with Resources in China

以"数据安全"为底线与重要原则, 聚焦全球数据价值流通共享,构建安全可靠、 高效实用的数据流通与应用体系

Buttress the bottom line of "data security," focus on the cross-border data value circulation and sharing, and explore the immense possibility of safe, efficient, and practical data circulation and application system

申报机构 Applying Institution

同态信息科技(西安)有限公司 上海同态信息科技有限责任公司

Tongtai Information Technology (xi'an) Co. Ltd. Shanghai Tongtai Information Technology Co. Ltd.

其他参与机构 Other participating organizations

航投云计算科技(西安)有限公司 沣东新城智算中心

俄罗斯诺夫哥罗德国立大学

Hangtou Cloud Computing Technology (Xi'an) Co., Ltd. Fengdong New City Intelligence Computing Center

Конструкций Конструки Конструкций Конструкций Конструки Конс

航投云计算

Novgorod University 案例涉及的国家和地区

Countries and Regions Covered or Involved in the Implementation

中国、俄罗斯 China, Russia 为推动中国与俄罗斯在数字基础设施领域的 创新合作,同态科技联合中国超算资源打造 "欧数中算"平台,推动数据跨境隐私加密 节点的建立,强化两国数字经济领域的共建 共享,为构建国际可信数据流通平台提供示 范样板。

Tongtai Tech enterprise has joined hands with China's supercomputing resources to build the "EUCN–S" Platform to promote innovative digital infrastructure cooperation between China and Russia. It promotes the establishment of cross–border data encryption nodes and strengthens the digital economy construction between the two countries guided by the principles of joint contribution and shared benefits, which establishes an exemplary model for the construction of an international credible data circulation platform.

中俄共建数字新基建, 推动"一带一路"国家科技交流合作

Jointly build the digital infrastructure, Promote the comprehensive and compound technological cooperation along the Belt and Road

"欧数中算"平台面向"一带一路"沿线国家,创新性内 置了"密文计算引擎",具备以高性能同态加密为核心的 数据封装、云数据托管、多维数据权限管控、数据安全融 合计算、全流程监管等关键技术能力,以便中俄政府部门、 科技企业、研究院校等能够灵活、快速、便捷地接入平台, 增强自身的差异化竞争能力和数字经济创新能力。

Target to the countries along the "Belt and Road", "EUCN–S" platform is innovatively built–in with a "cipher computing engine, which has key technical capabilities such as data encapsulation, cloud data hosting, control of multi–dimensional data rights, secure data aggregation, and full–process supervision, with high–performance homomorphic encryption scheme as the core. Thus, Chinese and Russian government departments, scientific and technological enterprises, and research colleges and institutes can access the platform flexibly, quickly, and conveniently, hence enhancing their differentiated competitiveness and the innovation capacity of the digital economy.

在相关部门的指导下,平台满足科研数据的跨境使用合规 要求,在安全高效、灵活可控的基础上,解决了大规模数 据资源计算问题,提高了数据可复用性、科研成功率,降 低了单一用户的建设成本。

Under the guidance of relevant departments, the platform meets the compliance requirements for cross-border use of scientific research data. It solves the problem of large-scale data resource computation on the basis of security, efficiency, flexibility, and controllability. In addition, it improves data reusability, the success rate of scientific research, and reduces the construction cost of a single user.

通过对科研方法的创新与知识共享,加强了中俄双方在数据融合和开发利用方面的合作,使科学数据价值得到最大程度地释放,为"一带一路"沿线国家数据跨境流动制度和技术标准化体系的建立提供有益借鉴。

Through the innovation and knowledge sharing of scientific research methods, it strengthens the cooperation between China and Russia in data aggregation and exploitation, maximizes the release of the value of scientific data, and provides a valuable reference for the establishment of the system of the cross–border flow of data and technical standardization for the countries along the "Belt and Road."



新型密码赋能数据要素市场,探索跨境数据 流动新范式

Novel cryptographic algorithm empowers the data elements market, and explores a new paradigm for cross-border data flows

同态科技同各国合作伙伴共同建设了"欧数中算"平台的 密码服务基础设施及试点项目,协助俄方科研团队利用中 国高性能计算资源完成了药物风险性与治愈率的密态差异 性研究,实现科研数据和成果的广泛、快速、有效和安全 的共享。

Together with partners from different countries, Homomorphic has built a cryptographic service infrastructure and a pilot project for the "EuroCount" platform, assisting a Russian research team in completing a study on the adverse reactions and cure rate of drugs based on difference, by using China's high-performance computing resources. The secure, efficient sharing of scientific research data and results are accomplished.

针对三类病例数据,总计药品9种,药物风险214种,整体病例11345301列,俄方通过租用同态隐私计算设备和按月、按功能订阅平台密文服务,首先完成原始数据的加密后传输至中国西北部的超算中心,再调用服务对加密数据实现密文计算与核验等功能。

For three types of case data, totaling 9 types of drugs, 214 types of drug side–effects, totally 11,345,301 case records, the Russian team firstly completes the encryption of the original data and then transmits it to the supercomputing center in northwestern China, by renting TongTai privacy–enhanced computing equipment, TACH–A. Then, they subscribe to the platform's ciphering service function on a monthly basis, to realize the secure computation and verification of encrypted cross–border data.

数据流动过程中,创新性采用了交易交付双分离的模式, 权责分明,有效降低数据运营主体的安全风险;由于服务 具备无需解密直接计算的特性,增强了数据在开放环境下 流动的安全性和可复用性,支持数据协作最大限度提高了 隐私与实用性,为中俄双方生物医疗领域的数据市场注入 创新发展活力。

We innovatively establish a Clear Division of Responsibility, Flexible, Safe, Open Sharing, and Convenient Data Transaction Model. The model effectively reduces the security risk of the data operation subject; as the service has the feature of direct calculation without decryption. Also, it enhances the security and reusability of data flow in an open environment, maximizes the privacy and utility of data collaboration, and energizes both countries' biomedical data market of innovation.



"一带一路"示范效应:数据跨境流动与互联互通的中国样板

The "Belt and Road" Demonstration Effect: Establish a Model for Cross-Border Data Flow and Interconnection

在密码科技自主创新的驱动下,同态科技致力于以可计量、 可复制的方式为跨境数据流通建立基础,解决了因安全边 界弹性化和业务模式复杂化而带来的数据流动安全隐患, 帮助企业充分释放存量数据和盈余的数据能力。

Driven by the independent innovation of cryptographic technologies, Tongtai Tech is committed to establishing a foundation for cross-border data circulation in a measurable and replicable way. It avoids the security risks of data flow due to the changes of security boundaries and the complexity of business models, and helping enterprises to unleash the value of data fully and safely.

借助对新型与经典密码技术的融合创新,"欧数中算"平 台初步形成了数据跨境流通的创新路径,重点研究数据要 素可信流通基础设施建设与可信计算能力体系共建,有助 于在全球范围内推广和应用新型密码技术,实现共同治理, 进而构建一个更加开放、安全和可持续的网络空间,有效 提高了企业共享与协同时的效能,降低研发与安全成本。 Through the integration and innovation of classical cryptographic technologies, the "ENCU–S" platform has initially formed an innovative approach for the cross–border data circulation. The structure focuses on research of trusted data infrastructure construction and the co–construction of a trustworthy computing capacity system, which helps to promote and apply the novel cryptographic technologies globally. To realize the common governance, this case builds a more open, secure, and sustainable cyberspace, effectively improving the efficiency of enterprises in the areas of sharing and collaboration and reduces the costs of research and development as well as security.

平台面向多元化业务的支撑能力,支持点对点数据交换、 多方数据汇聚、生态联合共建等应用模式,促进"一带一路" 沿线国家和地区的人流、资金流、信息流、技术流有序高 效流动,为建立标准化的数据安全流通体系提供支撑。

The platform's capability for diversified businesses supports application modes such as peer-to-peer data exchange, multi-party data convergence and joint ecological construction. It better promotes the orderly and efficient flow of people, capital, information and technology in the countries and regions along the "Belt and Road", and provides support for the establishment of a standardized data security circulation system.

New Cluster to boost Belt and Road

Relying on the support of Shaanxi's "China Silk Road Innovation Park" and the supercomputing center, it boosts a new cluster of digital industries in the "Belt and Road".

Industry-University-Research Cooperation

Closer ties between China-Russia research institutions have facilitated the effective and secure sharing of scientific data and results, and accelerated the transformation of scientific achievements.

Promote Global Technological Innovation

The cross-border application of new cryptographic technologies would better facilitate technological development, thereby building a more open, secure and sustainable cyberspace for the global community.

Form a new height of openness of the inland digital economy

Promote the high-quality construction of data sharing mechanisms and techniques, encourage enterprises with advantages to "go global", bring the cooperation of "Digital Silk Road" to new heights.

打造数字经济对外合作开放新高地 Build a digital economy with a new height of openness

03 04

01 02

"一站式"跨境电商外综服平台,助力全球中小企业 跨境贸易数字化转型

"One-Stop" Comprehensive Service Platform for Cross-Border E-commerce and Foreign Trade, Empowering Global SMEs in Digital Transformation of Cross-Border Trade



"一站式"跨境电商外综服平台



申报机构 Applying Institution

平安银行

Ping An Bank

其他参与机构 Other participating organizations

深圳前海九米、大数据系统计算技术国家工程实验室、深 圳国际控股有限公司、中国南山开发(集团)股份有限公司、 上海富友支付服务股份有限公司、连连银通电子支付有限 公司、PAYONEER HONG KONG LIMITED、(拼多多)上海 寻梦信息技术有限公司、PING PONG GLOBAL HOLDINGS LIMITED

Shenzhen Qianhai Nine Meters Information Technology Co., Ltd., National Engineering Laboratory for Big Data System Computing Technology, Shenzhen International Holdings Limited, China Nanshan Development (Group) Incorporation, Shanghai Fuiou Payment Service Co., Ltd., Lianlian Yintong Electronic Payment Co., Ltd., PAYONEER HONG KONG LIMITED, Shanghai Xunmeng Information Technology Co., Ltd., PING PONG GLOBAL HOLDINGS LIMITED



全球跨境电商亟待破解政府监管和金融安全 难题

Introduction: Urgent need to address problems in government regulatory and financial security in global cross-border e-com-merce

跨境电商作为数字时代全球各国经贸交流的重要形式,是 构建网络空间命运共同体、推进全球经贸繁荣的重要途径。 2022 年全球跨境电商进出口总额达到 5.8 万亿美元。跨境 电商具有贸易数字化、碎片化等新特征,各国政府面临真 实贸易数据监管难题,严重影响国际贸易与金融安全。

As an essential form of global economic and trade exchanges in the digital era, cross–border e–commerce is crucial to building a community of shared future in cyberspace and promoting global economic and trade prosperity. In 2022, the total volume of global cross–border e–commerce imports and exports reached \$5.8 trillion. Cross–border e–commerce transactions have new features, such as trade digitalization and fragmentation. Governments worldwide face challenges in regulating actual trade data, making it difficult to ascertain trade authenticity, significantly affecting cross–border trade and financial security.

"一站式"跨境电商外综服平台综合解决方案

One-stop Comprehensive Service Platform for Cross-border E-commerce

平安银行依托"金融+科技"优势,联合中国跨境电商外综 服先行者前海九米,创新搭建中国首个跨境电商外综服平台, 开展"一站式"跨境电商阳光化申报、智能报关、跨境结算、 快速办税和金融融资等业务,服务涉及全球数十个国家的跨 境电商贸易。

Leveraging the advantages of "finance + technology", Ping An Bank, in collaboration with Qianhai Jiumi, the pioneering cross-border e-commerce external comprehensive service provider, has innovatively established China's first cross-border e-commerce external comprehensive service platform. The platform provides one-stop services such as streamlined declaration for cross-border e-commerce, intelligent customs clearance, cross-border settlement, fast tax filing, and financial financing, serving cross-border e-commerce trade in dozens of countries worldwide.



平安银行 - 跨境生态四流合一

Ping An Bank - Converging the Four Flows in the Cross-Border Ecosystem 平台通过获取跨境电商关键环节业务数据,打通海关、金融、外管、税务等信息化通道,实现物流、资金流、信息 流等多维数据的实时互通和交叉验证,保障跨境贸易数据 真实性。在此基础上,平安银行搭建整套跨境账户体系, 支持包括美元、港币、欧元等在内的10种主流币种收款, 为跨境电商企业提供外汇资金结算、低息融资、资金增值、 出海避险等一站式服务,实现企业征信融资普惠金融服务 的落地。

The platform acquires business data on critical aspects at various stages of cross-border e-commerce and establishes information channels for customs, finance, foreign exchange management, taxation, etc. It ensures real-time data interchange and cross-validation of multidimensional data streams, such as logistics, capital flow, and information flow, thus guaranteeing the authenticity of cross-border trade data. Building on this foundation, Ping An Bank has established a complete set of cross-border account systems that support transactions in ten mainstream currencies, including USD, HKD, and EUR. It provides cross-border e-commerce enterprises with one-stop services such as foreign exchange fund settlement, low-interest financing, capital appreciation, and overseas hedging, enabling inclusive financial services based on corporate credit and financing.

多维创新、数字化转型与国际合作

Multidimensional Innovation, Digital Transformation, and International Collaboration

1. 政府监管创新:基于监管部门要求及平安银行风控模型,创新构建多流汇聚的"政府+市场"全链条、多维度跨境电商数据和合规平台。

1.Innovation in Regulation: Based on regulatory authorities' regulatory requirements and Ping An Bank's risk control model, we have innovatively built a "government + market" complete chain that converges multiple streams and constructed a multi-dimensional cross-border e-commerce data and compliance platform.

 2. 跨境金融创新:强化开放创新、生态共赢的业务理念, 首创跨境电商"银行+外综服平台"模式,对跨境电 商企业在跨境贸易金融领域全面赋能,涉及跨境账户体 系、收结汇、数字人民币应用和供应链金融等全链条。

2.Innovation in Cross-border Finance: Strengthening open innovation and win-win, we have pioneered the "bank + comprehensive service platform" model for cross-border e-commerce. This model empowers cross-border e-commerce enterprises in all aspects of cross-border trade finance, covering the entire chain from cross-border account systems to foreign exchange collection and settlement, applications of digital RMB, and supply chain finance.

数据服务创新:基于安全自主可控的区块链平台、跨域大数据计算技术和新一代人工智能技术应用,为行业发展、政策制定、市场研判和风险预警等提供综合数据服务。

3.Innovation in Data Service: Leveraging a secure, autonomous, and controllable blockchain platform, cross-domain big data computing technology, and next-generation artificial intelligence technology applications, we provide comprehensive data services for industry development, policy formulation, market analysis, and risk forecasting.

支持中小企业数字化转型创新:数字化变革推动跨境
电商中小企业进一步降本增效,提升跨境电商物流效率、
支付安全性、营销转化率及企业生产决策质量等。

4.Support Digital Transformation and Innovation of Small and Mediumsized Enterprises (SMEs): Digital transformation promotes cross-border e-commerce SMEs to improve cost-efficiency, logistics efficiency, payment security, marketing conversion rates, and the quality of enterprise production decision-making. 5. 推进跨境电商国际合作创新:平台模式创新和数字化技术创新为全球跨境电商贸易发展提供可复制、可借鉴的标杆案例,推动全球贸易数字化合作和安全标准的推广应用。

5. Promote International Cooperation and Innovation in Cross-border E-commerce: Our platform's innovative model and digital technology provide replicable and referenceable benchmark cases for the development of global cross-border e-commerce trade, advancing the digitization of global trade cooperation and the promotion and application of security standards.



深圳市家具行业协会成功链接意大利、芬兰、美国、法国等十余国市场资源 Shenzhen Furniture Association has successfully connected markets in more than ten countries, including Italy, Finland, the United States, and France

助力跨境电商中小企业数字化转型与全球化 拓展

Facilitating the Digital Transformation and Global Expansion of SMEs in Cross–border E–commerce

平台获得中国商务部 2022 年全国供应链创新与应用示 范。数字化金融赋能的跨境电商模式通过贸易数字化升 级,力促传统产业供应链的数字化变革,进而大力推动 全球传统制造业的数字化转型,进一步保障跨境电商贸 易与数据安全。 The platform was awarded the "National Supply Chain Innovation and Application Demonstration" by the Chinese Ministry of Commerce in 2022. The digitally empowered cross-border e-commerce model drives the digital transformation of traditional industry supply chains through trade digitalization, thus significantly promoting the digital transformation of traditional manufacturing industries worldwide and further safeguarding cross-border e-commerce trade and data security.

平台将帮助超过 50 万跨境电商企业、服务超 380 万家制 造业企业、助力超 100 个特色产业带与全球约 3000 家跨 境电商平台及 20 亿买家建立高效、安全、便利的跨境贸 易金融服务合作链接。预计能实现千亿级贸易额合规和 百亿级资金收结汇,为中小企业节省超百亿人民币的融 资成本。 The platform will assist over 500,000 cross-border e-commerce enterprises, serve more than 3.8 million manufacturing enterprises, and support over 100 special industry clusters in establishing efficient, secure, and convenient cross-border trade and financial service partnerships with approximately 3,000 cross-border e-commerce platforms and 2 billion buyers worldwide. It is expected to achieve compliance with trade volumes in the hundreds of billions and foreign exchange collection and settlement in the tens of billions, saving SMEs more than ten billion RMB in financing costs.



深圳市跨境电商阳光化出口申报启动仪式 Shenzhen Cross-Border E-commerce Simplified Export Declaration Launch Ceremony

德国亥姆霍兹联合会推动双边科技成果转化工作

Helmholtz Association of German Research Centers Promote the Transformation of Bilateral Scientific and Technological Achievements



德国亥姆霍兹联合会的成果转化工作定位

Positioning of the Achievement Transformation Work of Helmholtz Association of German Research Centres

德国亥姆霍兹联合会秉承德国著名自然科学家赫尔曼・冯・亥姆霍兹(1821–1894)研究工作, 成立于 1995 年,由德国联邦教育和研究部(BMBF)主要资助,通过连接 19 个国家级科研中 心工作体系及相关资源运营。

The Helmholtz Association of German Research Centres, founded in 1995, follows the research work of the renowned German scientist Hermann von Helmholtz (1821–1894). It is mainly funded by the German Federal Ministry of Education and Research (BMBF), and operates through a network of 19 national research centers and associated resources.

德国亥姆霍兹联合会建立的科技创新协作体系

Helmholtz Association of German Research Centers has Established a Collaborative System for Science, Technological Innovation

联合会采取科学自治的方式,致力推动于德国和国际社会的 长期研究目标,开展高水平的基础研究与创新工作,为人类 社会、科学界、经济界面临的重大挑战寻求解决方案。与此 同时,联合会通过建设大型仪器与高度复杂的研究装置,与 国际和德国的高校、科研机构、创新企业等开展密切合作, 形成了一种特殊的战略合作伙伴关系,参与任命和管理大学 内的科研人员,在校园内建立亥姆霍兹中心、学院、研究所 等"前哨站",为长期的密切合作不断奠定基础,能够跨越 学科、机构、组织和国家边界与国际合作伙伴合作。这样的 开放创新模式,在各方协作下高效而灵活,能够充分挖掘高 校、科研院所的工作潜力,最大限度发挥合作各方优势,是 开展多边科技创新与合作工作的重要基础。

The Federation operates with scientific autonomy and is committed to promoting long-term research goals in Germany and the international community. It conducts high-level basic research and innovation work, seeking solutions to major challenges faced by human society, the scientific community, and the business sector. At the same time, the association collaborates closely with international and German universities, research institutions, and innovative enterprises through the construction of large-scale instruments and highly complex research facilities. It has formed a special strategic partnership, participating in the appointment and management of research personnel within universities, and establishing Helmholtz centers, academies, and institutes as "outposts" on campuses. This lays a foundation for long-term collaboration, enabling cooperation with international partners across disciplines, institutions, organizations, and national boundaries. This open innovation model, characterized by efficient and flexible collaboration among various stakeholders, can fully tap into the potential of universities and research institutes, and maximize the advantages of all collaborating parties. It serves as an important basis for conducting multilateral scientific and technological innovation and cooperation.



德国亥姆霍兹联合会建立的全球网络 Helmholtz Association of German Research Centers Built a Global Network

德国亥姆霍兹联合会开展的多边科技成果转 化工作

Multilateral scientific and technological achievements transfer activities carried out by Helmholtz Association of German Research Centres

联合会调动科研人员与产业伙伴紧密合作开展科技成果转 移转化合作,主要通过技术授权、创办初创企业等方式实 现专利技术的商业价值转化,并且为必要环节提供研究所 需的基础设施等支持,建立包括战略联盟、资助基金、交 流活动等方式建立合作模式,为技术转移提供特别帮助和 平台机制。 德国亥姆赫兹联合会的成果转化工作流程 The Process of Achievement Transfer of Helmholtz Association of German Research Centres

HELMHOLTZ INNOVATION AND FUNDING PROGRAMS



The association engages in multilateral technology transfer and commercialization efforts. The association promotes close collaboration between researchers and industry partners to transfer and commercialize technological achievements. This is primarily achieved through technology licensing and the establishment of start–up companies to realize the commercial value of patented technologies. The association also provides support in terms of necessary infrastructure for research activities and establishes cooperation models through strategic alliances, funding schemes, and exchange activities. These efforts aim to provide special assistance and platform mechanisms for technology transfer.

联合会将科技成果转化、技术转移、战略研究、交流合作 等均视作除基础研究外最重要的工作使命,其中在科技成 果转化方面,通过咨询服务、继续教育、产业合作与对话 等方式面向公共社会、专家与行业机构、市场等持续输出 研究成果,实现知识成果从科学技术到理念、影响力的全 面转化。对照技术成熟度(9段式)体系,联合会针对不 同阶段开展不同类型的成果转化工作。

The association considers technology transfer, technology commercialization, strategic research, and collaborative exchanges as important missions in addition to basic research. In terms of technology transfer, the association continuously disseminates research findings to the public, experts, industry organizations, and markets through consulting services, continuing education, industry collaborations, and dialogues. This comprehensive transformation of knowledge from scientific technology to ideas and influence is achieved by aligning with a 9–stage technology maturity system and conducting different types of technology transfer activities at different stages.

德国亥姆赫兹联合会的社会影响力

The social influence of Helmholtz Association of German Research Centres

统计数据表明,联合会每年开展约2000个科技成果转移 转化项目,合作收益超过1.5亿欧元。推动能源、地球与 环境、健康、航空、空间与运输、物质、关键技术(目前 包括信息技术、材料科学、生命科学等)六个领域的科技 研究与创新发展。目前联合会拥有超过42,000名员工, 每年度预算超过50亿欧元,是德国最大的科研机构。联 合会每年申请400项产权和专利,总计13000项知识产权。 每年大约有1400个许可合同、期权合同和转让协议。每 年20个新的高科技副产品, 仅截至2016年, 联合会已 经创办 158 家初创公司,其拥有的专利中已有三分之一成 功实现了许可转化。亥姆霍兹共包括 19 个国家级的研究 中心,有最现代化的科学设备,特别是大型仪器和装置, 从事从天体物理学(Astrophysics)、生物学(Biology) 等各方面的研究。这些研究设施同时也向全世界的学者开 放,为解决社会发展所面临的重大问题贡献自己的一份微 薄之力。

Statistics show that the Union of Helmholtz Associations carries out approximately 2,000 technology transfer projects each year, with cooperation benefits exceeding 150 million euros. It promotes scientific research and innovation in six fields: energy, earth and environment, health, aerospace, space and transportation, materials, and key technologies (currently including information technology, materials science, life sciences, etc.). Currently, the Union of Helmholtz Associations has over 42,000 employees and an annual budget of over 5 billion euros, making it the largest research institution in Germany. It applies for 400 patents and intellectual property rights each year, with a total of 13,000 intellectual property rights. Approximately 1,400 license agreements, option agreements, and transfer agreements are concluded annually. It produces around 20 new high–tech spin–off companies each year. As of 2016, the Union of Helmholtz Associations has established 158 start–up companies, and one–third of its patents have been successfully licensed. The Helmholtz Association consists of 19 national research centers equipped with state–of–the–art scientific facilities, especially large–scale instruments and devices, conducting research in various fields such as astrophysics and biology. These research facilities are also open to scholars worldwide, contributing their efforts to solving major societal challenges.



德国亥姆赫兹联合会主要研究领域 Main research areas of Helmholtz Association of German Research Centres

科技向善弥合医疗数字鸿沟,助力构建人类卫生健康命运共同体

Bridging the Global Divide on Digital Healthcare Through Technology for Good and Dedicating to a Community with a Shared Future for Mankind



Innovative Development of the Digital Economy Promoting Innovative Development of the Digital Economy for Common Prosperity



DataPathology



PANTAI HOSPITALS

案例涉及的国家和地区

Countries and Regions Covered or Involved in the Implementation

澳大利亚、博茨瓦纳、中国、 马来西亚等 8 个国家和地区

8 countries and regions such as Australia, Botswana, China, Malaysia

杭州医策科技有限公司依托泰格制药和迪安诊断 两大健康医疗集团,致力于全球人工智能与数字 医疗的创新业务合作与技术平台建设,目前已经 与东南亚、非洲、澳洲等多个国家和地区的医疗 企业、科研机构广泛开展合作项目。

PathoAl leverages the strengths of Tega Pharmaceutical and Dian Diagnostic, two significant healthcare and medical groups in the industry. We are committed to innovative business collaborations and technology platform development in global artificial intelligence and digital healthcare. We have established extensive cooperation with medical enterprises and research institutions in several countries and regions, including Southeast Asia, Africa, and Australia.

积极响应世界卫生组织 "加速消除宫颈癌全 球 2030 战略",以科技向善促进全球健康 公平

SIRC

In active response to the World Health Organization's "Global Strategy to Accelerate the Elimination of Cervical Cancer" to promote global health equity through technology for good

2020年世界卫生组织(WHO)发布《加速消除宫颈癌全 球战略》,提出2030年全球消除宫颈癌这一目标,这是 全球首次承诺消除一种癌症。而发展中国家普遍面临着病 理专家极度匮乏的局面,医策科技致力于弥合全球医疗数 字鸿沟,依托全球智慧病理云平台,与全球多国医疗和科 研机构开展联合研发,积极参与全球大规模宫颈癌病理检 测项目,解决欠发达国家和地区医疗资源不足这一难题, 为实现全球健康公平做出贡献。
206 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

The World Health Organization (WHO) launched the "Global Strategy to Accelerate the Elimination of Cervical Cancer" in 2020, which aims to eliminate cervical cancer globally by 2030, thus marking the first global commitment to eradicate a type of cancer. However, developing countries generally face an extreme shortage of pathologists. PathoAl is dedicated to bridging the global divide on digital healthcare and has collaborated with medical and research institutions worldwide to develop a first–of–its–kind artificial intelligence–assisted diagnostic system for cervical cancer. PathoAl actively participates in large–scale global cervical cancer pathology screening projects to address the shortage of pathologists in underdeveloped countries and regions, thereby contributing to global health equity.



医策科技 CEO 王晓梅女士在 GITEX Global 上作 "加速消除宫颈癌全球 2030 战略"专题演讲

Ms. Wang Xiaomei, CEO of PathoAI, delivered a keynote speech on the "Accelerating the Global Strategy to Eliminate Cervical Cancer by 2030" at GITEX Global

跨国科技联合研发,打造技术领先的 AI 病 理检测平台

International research collaboration to develop a leading pathology AI diagnosis platform

我们与澳大利亚国家科学与产业研究机构(CSIRO)、新 南威尔士大学等医疗科研机构形成战略合作关系,开展数 字医疗科研和产业化合作,联合培养博士研究生,共同打 造全栈式人工智能辅助医疗基础科研平台。依靠"人工智 能核心算法 + 高质量病理数据集 + 顶级病理专家"的技 术与业务的双重优势,打造适用多人种、多病理的全球智 慧病理云平台,以自主研发的 Patholnsight 人工智能辅助 诊断系统为核心,形成了软硬件三位一体、云边端灵活部 署的产品体系。利用 AI 深度学习卷积神经网络算法,和 大规模数据分析 + 多模态特征融合技术,使系统具备了宫 颈细胞病理图像快速分析、潜在异常细胞识别、多模态医 学数据挖掘和利用等核心能力,大幅提高筛查效率与准确 性,推动病理检测的智能化发展。

We have formed strategic partnerships with institutions such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the University of New South Wales in Australia to carry out digital healthcare research and industrial cooperation and jointly train doctoral students to build a comprehensive AI– assisted medical research platform. With the advantages of "artificial intelligence core algorithms + Chinese national pathology dataset + top pathology experts," we are building a global intelligent pathology cloud platform suitable for various populations and pathology tests. Our core product, Patholnsight, an AI–assisted diagnostic system developed in–house, constitutes a product solution with three–in–one software and hardware integration with flexible deployment. By utilizing AI deep learning convolutional neural network algorithms and large–scale data analysis + multi–modal feature fusion technology, the system possesses core capabilities such as rapid analysis of cervical cytology images, identification of potential abnormal cells, and mining and utilizing multi–modal medical data. This significantly improves screening efficiency and accuracy, promoting the intelligent development of pathology diagnosis.



医策科技与 Women in AI Africa 和 RobotsCanThink 签署的三方合作协议; 与澳大利亚国家科学与产业研究机构, 新南威尔士大学签署的合作协议

PathoAI signed a three-party cooperation agreement with Women in AI Africa and RobotsCanThink, as well as collaboration agreements with the Australian National Science and Industry Research Organization (CSIRO) and the University of New South Wales in Australia

弥合全球医疗数字**鸿沟,推动女性健康服务** 国际协作

Bridging the global divide on digital healthcare and promoting international collaboration in women's health services

智慧病理全球云平台包含了宫颈癌人工智能辅助诊断的全 线产品,已应用于南非、摩洛哥、马来西亚、加纳、莫 桑比克、博茨瓦纳等多个发展中国家和欠发达地区,惠 及当地女性健康。例如,我们协助南非Lenmed 连锁医 院通过云平台链接中美顶尖病理专家开展远程会诊,大 大提升了当地的宫颈癌筛查工作效率与质量;与摩洛哥 DataPathology 实验室合作推出"人工智能诊断+专家云 上会诊"数字化智能化宫颈癌筛查方案,并推广至加纳、 莫桑比克、博茨瓦纳等多个非洲国家,为当地女性,特 别是部落乡村女性带来高质量医疗保障。在马来西亚 IHH Healthcare 医疗集团的11 家连锁医院实现了规模化部署, 承担起 80% 的初筛工作量,漏诊率大幅降低,每年为该 国数十万女性完成两癌筛查,大大提升了医疗服务水平。



医策科技出席 GITEX Africa Morocco 大会, 继续深化与非洲医疗机构的业务合作。 PathoAI participated in the GITEX Africa Morocco conference, further

deepening its business collaborations with medical institutions in Africa



马来西亚 IHH Healtheare 集团 使用医策科技的 AI 诊断平台进行病理诊断 The Malaysia-based IHH Healtheare Group utilizes AI diagnostic platform of PathoAI for pathological diagnoses

The Global Intelligent Pathology Cloud Platform includes a full line of AIassisted cervical cancer diagnosis products, which has been applied in several developing countries and underdeveloped regions such as South Africa, Morocco, Malaysia, Ghana, Mozambique, and Botswana, benefiting local women's health. For example, we have assisted Lenmed chain hospitals in South Africa in conducting remote consultations with top pathologists from China and the United States through the cloud platform, significantly improving the efficiency and guality of cervical cancer screening in the region. In collaboration with DataPathology laboratory in Morocco, we have launched a digitalized and intelligent cervical cancer screening program using "AI diagnosis + cloud expert consultation" and extended it to several African countries, including Ghana, Mozambigue, and Botswana, providing high-guality medical support for local women, especially those in tribal and rural areas. We have achieved large-scale deployment in 11 chain hospitals of IHH Healthcare in Malaysia, handling 80% of the initial screening workload, significantly reducing missed diagnosis rates, and conducting cervical cancer screening for hundreds of thousands of women nationwide each year, considerably improving medical services in the country.

推动全球普惠数字医疗发展,助力构建人类 卫生健康命运共同体

Promoting global inclusive digital healthcare development and contributing to the construction of a community with a shared future for human health

医策科技积极响应世界卫生组织关于"Health for All(人 人享有健康)"的号召,参与建设国际数字医疗协作与创 新机制,联合国际公益组织"Women in Al"(拥有来自 140个国家的9000名成员),与多个国家和地区的医疗 机构陆续签署战略合作协议,借助医策智慧病理全球云平 台开展国际科研合作与数字病理科室建设工作,目前已有 8个国家的10余家医疗机构与企业入驻,已累计为全球 近200万适龄妇女提供普惠的智能化宫颈癌筛查服务,未 来将进一步为全球上亿适龄妇女提供低成本高效能的宫颈 癌筛查 Al 服务,极大助力全球数字医疗普惠发展,发扬 数字健康领域的中国力量。

PathoAI actively responds to the World Health Organization's call for "Health for All" and participates in the construction of international mechanisms for digital healthcare collaboration and innovation. We have signed strategic cooperation agreements with medical institutions in multiple countries and regions and collaborated with the international non-profit organization "Women in Al," which has 9,000 members from 140 countries. Multiple international scientific research projects and digital pathology department establishments are being carried out through the PathoAI Global Intelligent Pathology Cloud Platform. More than ten medical institutions from eight countries have joined the platform, providing inclusive and intelligent cervical cancer screening services for nearly two million eligible women worldwide. In the future, we will continuously provide low-cost and efficient AIbased cervical cancer screening services for hundreds of millions of eligible women globally, greatly facilitating the inclusive development of global healthcare and promoting China's influence in the digital healthcare field.

医策科技积极践行"构建人类卫生健康命运共同体"的理 念,参与建设并发布全球首个权威、规范、安全的宫颈细 胞病理图像标准体系数据库,同时参与制定了中国《宫颈 细胞病理图像标准数据库数据标准体系》,以医疗科技联 合研发和弥合全球医疗数字鸿沟为己任,推动技术向善, 促进普惠式发展,为落实联合国 2030 可持续发展议程做 出应有的贡献。

PathoAl actively practices the concept of "building a community with a shared future for human health." We participate in the construction and release of the world's first authoritative, standardized, and secure cervical cytopathology image database. We have also participated in developing the "Chinese Cervical Cytopathology Image Data Standard & Standard Database." With a commitment to collaborative research and bridging the global divide on digital healthcare, we promote the use of technology, facilitate inclusive development, and make the necessary contributions to the implementation of the United Nations' 2030 Agenda for Sustainable Development.

210 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

护航上云之旅:浩鲸科技助力全球企业云上数字化转型

Escorting the Journey to the Cloud: Whale Cloud Enables Cloud Transformation for Global Enterprises



申报机构 Applying Institution

Whale Cloud

浩鲸云计算科技股份有限公司



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

印度尼西亚、沙特阿拉伯 Indonesia, Saudi Arabia

Innovative Development of the Digital Economy

Promoting Innovative Development of **211** the Digital Economy for Common Prosperity

在全球范围内,越来越多的企业正在加紧布局云 计算。随着互联网综合治理深入推进,数据合规 也成为了大势所趋。在此情况下,许多国家开始 推出主权云计划,以建立一种能够保障数据安全 和隐私的云计算平台。浩鲸科技本地公有云 (Local Public Cloud,以下简称 LPC) 方案以快速部署、稳 定上云、完全控制数据主权为特点,帮助企业打 破云技术垄断,充分释放最新云技术的潜力。

As businesses continue to expand and embrace digital transformation, the adoption of cloud computing has gained significant momentum. Data compliance has become a major trend with the deepening of comprehensive Internet governance. Numerous countries have initiated sovereign cloud programs aimed at establishing cloud computing platforms that ensure data security and privacy. Whale Cloud's Local Public Cloud (LPC) solution offers rapid deployment, stable cloud accessibility, and complete control over data sovereignty. By utilizing this solution, enterprises can overcome the monopoly of cloud technology and fully leverage the potential of the latest cloud technology.

Zain KSA 上云迁徙: 建好一朵"沙特云"

Zain KSA embraces the cloud by launching its locally-based "Zain Cloud"

Zain KSA 是沙特阿拉伯第三大运营商,致力于为个人、 企业和政府机构实现最佳客户服务体验,这与沙特 "2030 愿景"的目标一致。为了实现这一愿景,Zain KSA 联合 浩鲸科技在云计算业务上做出了大胆的尝试,开展运营 商连接之上的云计算项目,旨在为本地企业提供更敏捷、 更稳定、更安全的云服务,催化沙特数字化转型。

Zain KSA is the third largest telecom operator in Saudi Arabia. It is dedicated to enhancing its network and services to provide the best customer experience for individuals, businesses, and the government. This objective aligns with Saudi Vision 2030, which aims to drive the country's development. Zain KSA has partnered with Whale Cloud to venture into the cloud computing industry to achieve this vision. Through this collaboration, Zain KSA aims to offer local businesses more dynamic, convenient, reliable, and secure cloud services, contributing to Saudi Arabia's digital transformation.

212 数字经济创新发展 推动数字经济创新发展,促进共同繁荣

浩鲸科技为 Zain KSA 部署了本地公有云解决方案,成功 上线 Zain KSA 的云品牌 Zain Cloud,从 0 到 1 为 Zain KSA 打造了一个灵活安全、自主可控的云平台,建设了一朵沙 特自有的、面向当地企业及个人用户的公有云,实现现代 化安全合规的本地云服务供应。此次项目打破了第三方云 资源的垄断限制,实现云上数据安全可控,通过云底座的 支撑,为当地企业展开新一轮的业务创新具备突破性意义, 让整个中东地区的企业上云有了更低成本、简单运维、可 控可视的选择。



Whale Cloud deployed the LPC solution for Zain KSA, resulting in the successful launch of Zain Cloud. This new cloud platform provides Zain KSA flexibility, security, autonomy, and control, and establishes a Saudi–owned public cloud for government, institutions, and SMEs. It offers modern, secure, and compliant local cloud services, breaking the monopoly of third–party cloud resources. This project enables local enterprises in Saudi Arabia to embrace business innovation with the cloud, providing them with a cost–effective, user–friendly, controllable, and transparent option to migrate to the cloud.



Telkomsigma 云上创新: 成为印尼数字转型使能者

Innovation on the cloud: Telkomsigma becomes a digital transformation enabler in Indonesia

作为 PT Telkom Indonesia 的全资子公司, Telkomsigma 希望可以利用转型,为印尼的 B2B 行业提供基于数字 IT 服务的解决方案,特别是通过开发云业务成为印尼数字经济的加速器。

As a subsidiary of PT Telkom Indonesia, Telkomsigma aims to leverage its position to contribute to Indonesia's digital transformation. The company focuses on providing digital IT services to the B2B sector in Indonesia. In particular, Telkomsigma aims to develop a strong presence in the cloud computing industry, with the goal of accelerating the growth of Indonesia's digital economy.

通过成功部署浩鲸科技的 LPC 方案, Telkomsigma 建立其 自有云品牌 FLOU Cloud,为各行业的国有企业(SOEs)、 政府、中小企业和公司提供最先进的云服务。更重要的 是,浩鲸科技 CRE 方案帮助 Telkomsigma 迅速建立了统 一的云产品目录、统一云计费引擎、统一资源管理、统一 客户和订单管理,以支持各种云服务更快地进入市场,实 现多样化的云商业模式。FLOU Cloud 已经得到了中小企 业、大型企业、政府机构的信任,以无限、可靠、快速的 数字资源加速了经济复苏。自推出以来,FLOU 已拥有超 过 1280 个客户,并在推出后的短短 2 个月内,云基础设 施容量利用率便达到 90% 以上。

Through the successful deployment of the LPC solution, Telkomsigma has established its cloud brand, FLOU Cloud, to offer cutting–edge cloud services to state–owned enterprises (SOEs), governments, SMEs, and corporations across different industries. It positions Telkomsigma as a facilitator of digital transformation. Additionally, with the assistance of the Cloud Revenue Engine (CRE) from Whale Cloud, a multi–cloud resources discovery, management, and monetization solution, Telkomsigma has swiftly developed a unified cloud product catalog, unified cloud billing engine, unified resource management, and unified customer and order management. These improvements support faster time–to–market for various cloud services and enable diverse cloud business models. Since its launch, FLOU Cloud has attracted over 1,280 customers and achieved a cloud infrastructure capacity utilization of over 90% within just two months.



1+1>2: 释放双剑合璧倍增效应

1+1>2: maximizing the value

浩鲸科技将安全稳定的云底座和云业务支撑系统 融合为一整套统一的云解决方案:以 Apsara Stack 为底座,结合云资源管理和资源变现引擎(CRE), 为本地垂直行业注入了新的可能性。

Whale Cloud has integrated the cloud management platform and cloud business support system into a unified set of cloud solutions: Apsara Stack as the infrastructure, combined with cloud resource management and the CRE. This integration brings new possibilities for local vertical industries. 创新专有云 Apsara Stack 底座采用原生云安全架构,支持超大规 模的集群,满足运营大型业务系统和应用的要求,以支持大量用户。 CRE 为终端用户的在线自助服务提供了一个"主页",他们可以通 过"用户中心"轻松查看账单、订单、云资源消耗详情。CRE 是一 个 100% 本地部署、运营和维护的解决方案,使用企业能够完全 控制其定价和业务规则及策略。

The Apsara Stack is designed with a cloud–native architecture and supports ultra– large–scale clusters to meet the needs of operating large business systems and applications, supporting a high volume of users. The CRE provides a self–service portal for end–users. Through the "User Center," users can easily access information about billing, orders, and cloud resource consumption. It is worth noting that the CRE is fully deployed, operated, and maintained locally in Saudi Arabia. It gives Zain KSA complete control over pricing, business rules, and policies.

持续前行:携手构建网络空间命运共 同体

Moving forward: jointly building a community with a shared future in cyberspace

在自研数字技术的支撑下,浩鲸科技已实现向全 球主流电信运营商提供数字化转型方案和服务, 以卓越的产品技术与全球化交付能力,打造众多 中国技术"出海"合作标杆,将国产化技术带出 国门,用自主创新让世界看到"中国面孔"。

Whale Cloud has successfully provided digital transformation solutions and services to leading global telecom operators by leveraging its in-house developed digital technologies. With its mature products and global delivery capability, Whale Cloud has set numerous benchmarks for Chinese technology companies in international cooperation, brought local technology overseas, and showed the world the "China technology product" with its independent innovation.



LPC 方案架构 LPC Program Architecture

这锂换电智慧能源网络新基建

A New Infrastructure of Intelligent Energy Network for Lithium Batteries-Swapping (Named IIENet)



申报机构 Applying Institution)

杭州宇谷科技股份有限公司 Hangzhou Yugu Technology Co., Ltd.



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、印度、印度尼西亚 China, India, Indonesia

这锂换电云平台架构图 The cloud platform architecture diagram for BaaS

在全球范围内,电动两轮车已成为一种重要的交通工 具,本案例推出了"以换代充"高效能源补给方案, 解决了传统补能方式存在耗时长、有安全隐患和电池 性能下降等问题,为用户带来更加便捷、高效、安全 的出行体验。

All over the world, two-wheeled electric bicycles have become an essential mode of transportation. In this case, we have introduced the "Batteriesswapping instead of Charging" high-efficiency energy refueling solution, addressing the problems in traditional charging methods, such as long refueling times, safety concerns, and declining battery performance. This solution has provided users with a better, more convenient, efficient, and safe transportation experience.

以换代充模式具有广泛的应用前景及普遍适 用性

The "Batteries–swapping instead of Charging (BIC)" mode has broad application prospects and universal applicability

这锂换电智慧能源网络新基建,主要应用在电动两轮车领 域,革新性的推出换电模式,基于云计算、大数据、物联 网等技术,自主研发电池全生命周期管理系统,构建全时 域换电网络,确保用户能始终使用处于健康、安全状态的 电池,满足了日常出行、即时物流人员高频换电及持续续 航需求。

The new infrastructure of intelligent energy networks for BaaS mainly applies to the two-wheeled electric bicycle industry and introduces a revolutionary swapping mode. Based on technologies such as cloud computing, big data, and the Internet of Things, we have independently developed a full-lifecycle management system for batteries and built a full-time swapping network, ensuring that users can always use healthy and safe batteries, meeting their needs for daily travel, on-demand riders' high-frequency swapping, and continuous driving.

换电技术方案功能完善,操作简单,普适性好,对于全球 电动车行业的长足发展具有积极影响。我们公司曾与印度、 印度尼西亚等国家的电动两轮车服务商展开合作,提供了 先进的换电产品和技术方案,并根据当地实际情况进行了 联合调试和适配。这一换电方案流程简单,能够快速补充 能源,为当地用户带来更加便捷、安全和智能化的换电体验, 同时也为当地电动两轮车产业发展带来了新的商业模式, 推动了全球两轮电动车智能能源网络新基建的广泛覆盖。



The swapping technology solution has a complete range of features, with simple operation and versatility. It has a positive impact on the long-term development of the global two-wheeled electric bicycle industry. Our company has collaborated with two-wheeled electric bicycle service providers in other countries such as India and Indonesia, providing advanced swapping products and technology solutions and conducting joint testing and adaptation according to local conditions. This swapping solution has a simple process, fast energy replenishment, and brings local users a more convenient, safe, and intelligent swapping experience. It also brings a new business model for the development of local two–wheeled electric bicycle industries and promotes the widespread coverage of intelligent energy networking for two–wheel electric bicycles globally.

新一代信息技术赋能换电业务

The application of new information technology in the swapping business has empowered it to become more efficient and sustainable

公司掌握了基于充放电保护、电池参数智能管理、电池保 护模块温度调节、数据传输等方面的核心技术,构建了基 于 AI 深度学习的电池容量预估模型以及基于时间序列的 荷电状态预估方法,解决了电量预估不准的问题;实现基 于端云协同技术的 BMS 主动均衡技术,提高了电芯组的 电压一致性,提升了电池的可使用容量,有效提高了电池 的续航里程。 Yugu Technology has researched the core technologies, including charge and discharge protection, intelligent battery parameter management, battery protection module temperature adjustment, data transmission, etc. Yugu Technology developed the battery capacity prediction model utilizing AI deep learning and the charge state prediction method based on time series to solve the problem of inaccurate power prediction. The BMS active equalization technology based on end-cloud collaboration technology improves the voltage consistency of the battery group, improves the available capacity of the battery, and effectively improves the battery mileage.



端云协同 Device-cloud Collaboration 案例实施过程中,公司充分利用大数 据、AI 算法等新一代数字技术赋能 换电业务,通过算法、软硬件、服务 深度结合,实现了制造、服务双侧端 云协同的高效配合。同时采用 M2C (Manufacturers to Consumer)的经 营模式(即生产厂家直接对消费者提 供产品服务),集研发、生产、运营、 服务于一体的全价值链的经营模式, 贴近用户、降低成本、提高运行效率, 提供更加优质的服务体验。

Yugu Technology made full use of newgeneration digital technologies such as big data and AI algorithms to enable charging and batteryswap business in implementation. It achieved efficient cooperation of manufacturing and service on device and cloud collaboration through the deep combination of algorithms, hardware and software, and services. In the meantime, the M2C (Manufacturers to Consumer) business model (which means that manufacturers directly provide products and services to consumers) is adopted, consisting of research and development, production, operation, and service, which can be closer to users, reduce costs and improve operating efficiency, to provide more quality service experience.

这锂换电智慧能源网络新基建,助力科技共富、碳中和

The new intelligent energy network infrastructure for BaaS helps promote technical shared prosperity and carbon neutrality

换电模式不但有效解决了电动两轮车传统充电方式存在的充电难、有安全隐患等 问题,而且节省了用户充电时间,在即时配送行业,提高外卖员每日配送单量, 增加个人收入。

The BaaS can effectively address the problems of charging difficulty and safety concerns in the traditional charging methods for two–wheeled electric bicycles and save users' charging time. In the on–demand delivery industry, it increases delivery personnel's daily delivery volume, increasing their income.



案例获"数字共富"特等奖 -- 官媒报道画面

From official media coverage footage: this case has won a special prize in the "Digital Common Prosperity" of 2022 Global Internet Competition of "Straight to Wuzhen"



应用场景 Application Scenario

以换代充的模式创新,有效解决了新能源在社会消费和服务领域 中安全、高效、绿色等可持续发展问题,并推动整个行业智能化、 数字化水平。此外,还节省了用户因为补电而产生的无效里程数, 减少碳排放,助力全球双碳减排目标的实现,提升社会效益,同 时为其它国家提供发展经验。

The "Batteries–swapping instead of Charging (BIC)" model is innovative and effectively solves the sustainability issues in the social consumption and service sectors, promoting the intelligence and digitalization of the entire industry. In addition, it saves the number of invalid kilometers generated by users due to charging, reduces carbon emissions, helps achieve global carbon reduction targets, and enhances social benefits. At the same time, it provides development experience for other countries.





网络安全保障 ^{保障网络安全,促进有序发展}

Cybersecurity Maintenance Maintaining Cybersecurity to Promote Orderly Development





全球基础数据共享 保障网络空间安全

Global Internet Infrastructure Data Sharing for Ensuring Security in Cyberspace



互联共享助推数字发展 Interconnected Sharing Promotes Digital Development

申报机构 Applying Institution)

美国 DomainTools 公司 DomainTools Co.







其他参与机构 Other participating organizations

美国远见公司、Anomali、Cisco、 CyberTOOLBELT、Palo Alto Networks、 EclecticIQ、 Infoblox、King & Union、 Prosoft、Recorded Future、伏羲智库等

FarsightSecurity, Anomali, Cisco, CyberTOOLBELT, Palo Alto Networks, EclecticIQ, Infoblox, King & Union, Prosoft, Recorded Future, Fuxi Institution etc.

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation 在数字化、智能化的时代,全球基础数据的重要性日益 凸显,成为推动各种应用场景发展的基础和支撑。被动 DNS 数据(pDNS)作为全球基础数据的重要组成,可用 于网络威胁情报分析、攻击溯源、恶意域名检测等场景, 帮助企业和组织发现潜在的网络攻击和威胁,并采取相 应的安全措施。

In the digital and intelligent era, the importance of global internet infrastructure data is increasingly prominent, serving as the foundation and support for the development of various application scenarios. Passive DNS data (pDNS), as an important component of global infrastructure data, can be used in scenarios such as network threat intelligence analysis, attack tracing, and malicious domain detection. It helps enterprises and organizations identify potential network attacks and threats, and take corresponding security measures.

全球

Global

全球布局 携手构建互联网基础数据交换平台

Global Layout: Jointly Building an Internet Infrastructure Data Exchange Platform

美国 DomainTools 公司是用于丰富威胁情报分析的 WHOIS 数据和其他 DNS 配置文件数据的国际领先提供商, 其全球互联网被动 DNS(pDNS)数据库产品 Farsight DNSDB[®]包含全球最全量 DNS 解析数据,由 DNS 协议 主要设计者、伏羲智库首席科学家 Paul Vixie 研发,服务 全球数百个安全企业和大型公司。

DomainTools, a leading international provider of WHOIS data and other DNS configuration file data for enriching threat intelligence analysis, offers the Farsight DNSDB[®] product, which includes the most comprehensive DNS resolution data worldwide. Developed by Paul Vixie, the primary designers of the DNS protocol and Chief Scientist of Fuxi Institution., this product serves hundreds of security companies and large corporations worldwide.

DomainTools 依 托 自 身 及 FarsightSecurity、Anomali、 Cisco 等全球合作伙伴,构建了互联网基础数据交换平台, 形成了全球最完备的实时域名基础数据库。这些数据为安 全厂商、安全监控团队、威胁情报分析团队提供有关全球 网络存在及其变化方式的 Internet 视图。伏羲智库作为其 FarsightSecurity 全线产品(DNSDB[®]等)在中国地区的独 家合作伙伴,为中国企业和组织提供互联网基础数据解决 方案,保护用户免受威胁。

DomainTools, with the support of its global partners such as Farsight Security, Anomali, Cisco, has built an internet infrastructure data exchange platform, forming the most comprehensive real-time domain name infrastructure database globally. These data provide an Internet view of the existence and changing patterns of the global network for security vendors, security monitoring teams, and threat intelligence analysis teams. As the exclusive partner of Farsight Security's full product line (including DNSDB[®]) in China, Fuxi Instituion provides Internet infrastructure data solutions for Chinese enterprises and organizations to protect users from threats.



实时快速共享 全面客观记录全球网络行为

Real-time and Rapid Sharing : Comprehensive and Objective Records of Global Network Behavior

DomainTools 在全球范围内超过 300 个中大型递归 DNS 服务运营商端部署数据采集节点,收集由递归 DNS 服务器与权威 DNS 服务器间实时查询响应报文,进行数据处理后数据汇集到被动 DNS 数据库中。数据库记录了自2000 年起超过 1000 亿个域名解析记录,每秒更新超过200,000 个唯一的 DNS 解析记录,已经积累了目前全球最大的 pDNS 实时和历史数据库 DNSDB(DNSDB[®]),这些数据不但可以非常全面客观的监测当下的全球网络行为,同时也记录了过去数十年间互联网发生过的事件关联。

DomainTools has deployed over 300 data collection nodes with large and medium–sized recursive DNS service operators worldwide. These nodes collect real–time query response packets between recursive DNS servers and authoritative DNS servers. After data processing, the data is aggregated into the passive DNS database. The database records over 100 billion domain resolution records since 2000, with over 200,000 unique DNS resolution records updated per second. It has accumulated the largest real–time and historical pDNS database, DNSDB[®]. These data not only comprehensively and objectively monito current global network behavior but also record events and associations that have occurred on the Internet over the past decades.



共享共治 为全球网络安全保驾护航

Shared Governance: Safeguarding Global Network Security

pDNS 数据库是互联网的核心基础资源之一,广泛应用于 网络安全、大数据分析、网络品牌保护、欺诈保护、反钓 鱼等场景,溯源&关联关系分析、实时数据监测、评估分析、 网络资产测绘、数据库构建等,助力社会和经济发展,惠 及各行各业。

pDNS databases are one of the core foundational resources of the Internet and are widely used in various scenarios such as network security, big data analysis, network brand protection, fraud protection, and anti-phishing. They assist in tracing and associating relationship, real-time data monitoring, evaluation analysis, network asset mapping, database construction, and more, contributing to societal and economic development, benefiting various industries.



pDNS 被广泛应用到各种网络安全场景 pDNS is widely applied in various network security scenarios

首先,pDNS 数据库客观真实地反映了全球互联网访 问情况,通过基础数据共享,能够鉴定、丰富和关联 所有威胁数据源。2020 年疫情爆发后,pDNS 数据 库及其分析工具在识别以新冠病毒为主题的网络攻 击活动中发挥了重要作用。通过将钓鱼邮件关联到 发起方并进行定位,成功追溯到针对中国发起攻击 的 APT 组织海莲花。这种信息共享有利于提升全球 网络安全水平,保护不同国家和地区免受网络攻击的 威胁。

Firstly, the pDNS database objectively reflects the global internet access situation and, through data sharing, is able to identify, enrich, and correlate all threat data sources. After the outbreak of the COVID–19 pandemic in 2020, the pDNS database and its analytical tools played an impotant role in identifying network attack activities with the theme of the novel coronavirus. By associating phishing emails with their originators and locating them, the attribution was traced back to the APT organiztion Ocean Lotus, which launched attacks against China. This information sharing helps to enhance the global level of cybersecurity and protect different countries and regions from the threats of network attacks.

其次,pDNS 数据库共享带来技术创新。安全厂商、 企业和研究人员可以更好地利用大数据、人工智能等 前沿技术应对网络威胁,进而推动相关领域的发展 创新。恶意行为大多利用新域名,通过 DNSDB[®] 筛 选新注册与激活域名可快速定位恶意行为所用域名, 净化网络环境。为配合有关机构快速发现赌博色情等 违法网站,伏羲智库技术团队曾利用 DNSDB[®]快速 定位新激活域名,迅速拦截,从源头遏制非法网站的 滋生。 Secondly, the sharing of pDNS database brings about technological innovation. Security vendors, enterprises, and researchers can better utilize cutting–edge technologies such as big data and artificial intelligence to respond to network threats, thereby promoting development and innovation in related fields. Malicious activities often utilize new domains, but by filtering newly registered and activated domains through DNSDB[®], malicious domains used in these activities can be quickly located, purifying the network environment. In order to help relevant organizations quickly discover illegal websites such as gambling and pornography, the technical team of Fuxi Institution has used DNSDB[®] to quickly locate newly activated domains and intercept them, effectively curbing the proliferation of illegal websites from the source.

最后,基础数据共享大幅提升企业竞争力。企业网络 安全水平的提高,能够更好地保护内部信息和客户数 据,增强顾客对企业的信任度。同时,高效处理网络 威胁也能避免由网络攻击带来的损失,增强企业的业 务连续性。 Lastly, infrastructure data sharing significantly enhances enterprise competitiveness. Improving the level of network security enables better protection of internal information and customer data, enhancing customer trust in the enterprise. At the same time, efficient handling of network threats can avoid losses caused by network attacks and enhance business continuity for enterprises.

未来,DomainTools 将会联合全球更多机构和企业, 力争研发更多的数据服务和产品,助力建设安全、稳定、 繁荣的网络空间。

In the future, DomainTools will collaborate with more global institutions and enterprises, striving to develop more data services and products to contribute to the construction of a secure, stable, and prosperous cyberspace.



Typical Applications of DNSDB: Anti-Phishing and Anti-Spam Websites



亚运天穹-践行亚运理念,筑牢安全防线

Asian Games Sky Dome - Practice the Asian Games Mission and Build a Strong Safety Defense Line



申报机构 Applying Institution 〉



Hangzhou Dbappsecurity Co., Ltd.

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation 」

阿富汗、孟加拉国、不丹、中国等阿富汗、孟加拉国、 不丹、中国等 45 个国家

45 countries and regions such as Afghanistan, Bangladesh, Bhutan, China

杭州第 19 届亚运会 The 19th Asian Games in Hangzhou

当前国际体育赛事的举办高度依赖信息化基础 设施、数字化技术手段以及互联网化服务模式, 构建具备主动防御能力的赛事安全运营体系, 是有效应对各类潜在的网络攻击风险与威胁, 保障赛事顺利、安全举办的基础。

At present, the organization of international sports events is highly dependent on the synthesis of information infrastructure, digital technology, and internet–based service. Building an event security operation system with active defense capability is a safety foundation for effectively responding to potential cyber–attack threats and successful event organization.

核心应用: 以亚运天穹打造赛事保障安全运营体系

Core application: Building a Safe Operation System Guarantee for Asian Games Events with Sky Dome

亚运天穹运营体系集成自动化安全运营工具、一体化智能 分析运营平台、外部情报信息赋能等能力,依托遍布全 球的130多个安全运营节点,为赛事安全保障提供海量 的专家资源支持,获取最高等级安全保障能力成本降低 35%。

Relying on more than 130 security operation nodes all over the world, the Asian Games Sky Dome integrates automated security operation tools, intelligent analysis operation platform, external intelligence, information empowerment, and other capabilities, providing massive expert support for event security and reducing the cost of acquiring the highest level of security protection capability by 35%.

230 网络安全保障保障网络安全,促进有序发展

网络安全态势感知和监控体系作为主动防御运营体系的 重要能力,通过项目运作和企业合作等方式,已开展中 国、美国、哈萨克斯坦、委内瑞拉、马来西亚等多个国家 1000 多家政企用户服务,帮助全球 800 余名客户构建主 动防御运营体系。自 G20 峰会网络安全保障建立全国首 个重大安全运营体系后,主动防御运营体系在 2019 年世 界军人运动会、第 31 届世界大学生运动会、历届世界互 联网大会、进博会等实战场景中不断提升。

As an essential capability of the active defense operation system, the network security situation awareness and monitoring system has provided services through project operation and enterprise cooperation for more than 1,000 government and enterprise users, including China, the United States, Kazakhstan, Venezuela, Malaysia, and other countries. And it has helped more than 800 clients build an active defense operation system worldwide. Since the establishment of the first significant security operation system for cyber security assurance at the G20 summit, the active defense operation system has been continuously improved in actual combat scenarios such as the 2019 Military World Games, the 31st World University Games, the previous World Internet Conferences, and the China International Import Expo.





天穹安全运营智能平台-亚运网络安保的"安 全引擎"

Sky Dome Security Operation Intelligence Platform – The "Security Engine" for Asian Games Cybersecurity

亚运天穹运营智能平台基于亚运总体网络安全运营要求, 贴近亚运网络安全工作者实际业务需要,采用工具分层解 耦、服务嵌套聚合的理念,多手段、多维度、多层次共同 进行亚运网络安全保障。

Based on the overall cyber security operation requirements of the Asian Games and close to the actual needs of Asian Games security workers, the Asian Games Sky Dome Operation Intelligence Platform adopts the concepts of tools layered decoupling and service nested aggregation to guarantee the security of Asian Games by multiple means, multiple dimensions and multiple levels, including:

全源化采集,确保系统数据来源的全面性,实现亚运网络 安全领域基础安全数据要素归集管理。

Acquisition of full source. The comprehensiveness of the system data source ensures the realization of the Asian Games network security field of essential security data elements centralized management. 实战化应用,通过智能网络安全态势分析打通运营、运维、 安服、决策各维度能力,涵盖监测、态势、通报、处置、 情报、网络安保调度等环节,形成网络安全态势监测业务 闭环.

Production Application. Combining the capabilities of operation, operation support and maintenance, security services, decision–making, and other dimensions of intelligent network security situation analysis, coverage monitoring, situation, notification, disposal, intelligence, network security scheduling, and other links, ultimately forming a closed–loop network security monitoring business.

智能化分析,基于系统获取的各类监测数据及日常业务流转产生的业务数据,建立亚运安全指标、规则、情报等模型,实现智能网络安全态势分析。



Asian Games Sky Dome - New Generation Active Defense Operation Center

Intelligent analysis. Based on the various monitoring data acquired by the system and the business data generated by the daily business flow, it establishes the Asian Games security indicators, rules, intelligence, and other models, thus realizing intelligent cyber security situation analysis.

以天穹安全运营中心探索国际体育赛事保障 新思路

Exploring New Ideas of International Sports Event Security with Sky Dome Security Operation System

国际体育赛事因其巨大的国际影响力,在网络安全保障方面具有极高的强度要求,结合其自身网络、应用、数据等 各方面的复杂性与脆弱性特点,网络安全保障工作面临诸 多不确定性与较大难度。

Since international sports events have enormous global influence, they have extremely high-intensity security requirements. Combined with the complexity and vulnerability of their network, applications, data, and other aspects, the cyber security guarantee work faces many uncertainties and significant difficulties.

天穹安全运营中心在各国际体育赛事安全保障工作中的成 功应用,是因为符合当前以工具替代服务、以技术赋能人 员、以攻击验证防守、以情报赋能安全的安全运营发展趋 势,实现平台解耦、工具提效、专家介入。相比传统堆人、 堆设备且保障力度弱的保障思路,实现了在赛事保障目标 的完成与安全资源投入之间的良性平衡,探索出一条赛事 保障的新思路,也可在重大国际会议网络安全保障、高价 值业务目标网络安全防护方面提供可实践与可复制的经 验。

With the successful application of the Sky Dome security operation system in the security guarantee of various international sports events, the current security operation development trend meets the way of replacing services with tools, empowering personnel with technology, verifying defense with attacks, and empowering security with intelligence. It has realized platform decoupling, tool efficiency improvement, and expert intervention. Compared with traditional security ideas such as stacking people and equipment, which lack security guarantees, the security operation system has achieved a benign balance between the completion of the event security goal and security resource investment, exploring a new idea of event security. Most importantly, its practicable and replicable experience can furnish the cyber security assurance of major international conferences and high–value business targets.

基于人工智能的基础电信网络威胁信息共享与安全事件运营平台

Artificial Intelligence-based Threat Information Sharing and Security Event Operation Platform for Fundamental Telecommunications Networks



上海观安信息技术股份有限公司

China Mobile (Hangzhou) Information Technology Company Limited Information & Data Security Solutions Co., Ltd



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation _

中国、中国香港、中国澳门、新加坡、泰国 China, Hong Kong (China), Macao (China), Singapore, Thailand 全球数字经济加速发展,以 5G 为代表的基础电 信网络已成为各国网络空间的"信息大动脉"和 基石底座,与此同时世界范围内以勒索软件、数 据泄露等为代表的网络安全事件频繁发生。双重 因素叠加倍增,做好基础电信网络安全防护工作 意义重大。

With the accelerated development of the global digital economy, the fundamental telecommunication network represented by 5G has become the "information artery" and cornerstone base of the cyberspace of various countries. Meanwhile, network security events such as ransomware and data leakage occur frequently worldwide. The two factors are superimposed and multiplied. Therefore, it is essential to excel in fundamental telecommunication network security protection.

构建集中能力, 广泛赋能支撑

Building centralized capabilities and extensive empowerment support

中国移动集团经过多年建设实践,建立了一个融合大数据 与人工智能技术于一体的多源威胁情报共享和全网安全 事件运营平台,为中国移动集团 30 余家省专公司、中国 移动香港公司,以及巴基斯坦、泰国等合作电信运营商提 供在线威胁情报能力支撑,和 7*24 小时的网络安全事件 运营。 After years of construction and practice, China Mobile Group has established a multi–source threat intelligence sharing and network– wide security event operation platform integrating big data and artificial intelligence technologies, providing online threat intelligence capability support and 7*24–hour network security event operation for more than 30 provincial specialized companies within China Mobile Group, China Mobile Hong Kong, as well as more than a dozen overseas organizations, such as cooperative telecom operators in Pakistan and Thailand.



1. 多元方式挖掘威胁情报, 高危安全事件精准监测

1. Mining threat intelligence in multiple ways and accurately monitoring high-risk security events

自主挖掘高可信威胁情报,发挥中国移动全球第一大网络 的流量数据优势,开展基于图关联等 AI 智能模型的威胁 情报自主挖掘。对接全球开源威胁情报社区,与全球超 150 个机构建立常态化合作机制,实时获取、共享高可靠 威胁情报信息。目前,已构建超3亿条高价值威胁情报库, 日均调用超1亿次,有力支撑风险精准监测和快速处置。

Independent mining of highly reliable threat intelligence, leveraging the traffic data advantage of China Mobile, the world's largest network, carrying out autonomous mining of threat intelligence based on graphical correlation and other AI intelligent models. We have established a regular cooperation mechanism with more than 150 organizations worldwide to obtain and share highly reliable threat intelligence information in real–time. It has built a high–value threat intelligence database of more than 300 million items, with a daily average of over 100 million calls, strongly supporting accurate risk monitoring and rapid disposal.



2. 汇聚网络安全攻击告警, 智能模型研判处置风险

2. Gathering network security attack alarms, using intelligent models to judge and handle risks

对中国移动全网安全告警日志进行全量获取,日均采集 数量超2亿条,通过自主研发150余个AI智能告警压降 模型,将告警关联过滤成千余条网络安全事件,并进行 一键封堵,高效快速处置风险事件,守护全球超9亿客 户网络信息安全。

China Mobile's network-wide security alarm logs are acquired in full volume, with a daily average of more than 200 million items. Through the independent research and development of more than 150 AI intelligent alarm suppression models, the alarms are correlated and filtered into more than 1,000 cybersecurity events and blocked with a single key so that risky events can be disposed of efficiently and quickly to guard the network information security of more than 900 million customers around the globe.

234 网络安全保障保障网络安全,促进有序发展



坚持自主创新,快速迭代技术

Adhering to independent innovation and rapidly iterating technology

 自研多源异构安全数据统一采集技术,建立"万能钥 匙",有效解决中国移动现网内几千种网络安全设备数 据类型不统一、格式不一致的突出问题。

 Self-developed the unified collection technology of heterogeneous security data from multiple sources and established the "universal key" to solve the outstanding problems of inconsistent data types and formats of thousands of network security devices in China Mobile's existing network.

 海量误告警数据有效压降技术,具备"火眼金晴", 自研人工智能模型可实现 99% 的误告警数据压降,有 效降低运营人员研判分析工作量。

 Massive false alarm data suppression technology, with "the piercing eyes", the self-developed artificial intelligence model can achieve 99% of the false alarm data suppression, effectively reducing the workload of operational staff research and analysis. 3. 重大安全威胁全网一键封堵技术,实现"一指触发", 与国际出口、骨干网核心设备等进行联动,高危风险可
5 分钟内一键处置封堵,守护全网用户安全。

3. Network-wide one-key blocking technology for major security threats, realizing linkage with international exports, backbone network core equipment through "one-finger trigger", and high risks can be disposed of within 5 minutes of one-key blocking to protect the safety of users across the network.

4. 知识衍生情报挖掘技术,可以"先敌发现",独创的 "由点及面"的衍生情报知识网络模型,可实现攻击行 为的"0"时差发现,防患网络安全攻击威胁于未然。

4. Knowledge-derived intelligence mining technology can "discover the enemy before the attack", the self-developed "from point to point and surface" derived intelligence knowledge network model can detect the attack behavior with the "0" time lag. The network security attack threat can be prevented before it occurs.



秉承共享理念,实现价值创造

Adhering to the concept of sharing to achieve value creation

本项目是中国移动集团级网络安全综合运营平台,经过多 年建设实践和持续完善,多次及时监测和处置永恒之蓝等 全球范围内的重大网络安全事件,有力保护了具有世界最 大客户规模与网络规模的基础电信网安全,护航了超9亿 个人用户、2.4亿家庭用户、2000多万政企客户的网络业务, 并为多个国家的网络安全监测处置工作提供高价值威胁情 报信息,有力保障了世界互联网大会、一带一路高峰论坛、 金砖峰会等几十次各类国际重大会议期间的网络安全。

This project is China Mobile's group–level comprehensive network security operation platform, which, after years of construction and continuous improvement, has promptly monitored and disposed of major global network security incidents such as Eternal Blue several times, vigorously protected the security of the fundamental telecommunication network with the world's largest customer scale and network scale, and escorted the network business of more than 900 million individual users, 240 million family users, and more than 20 million government and enterprise customers. It has also provided high–value threat intelligence information for many countries' network security during dozens of major international conferences, such as the World Internet Conference, the Belt and Road Summit Forum, and the BRICS Summit.

中国反诈成功实践

Successful Anti-Fraud Practice in China



申报机构 Applying Institution

公安部刑事侦查局

Criminal Investigation Bureau of the Ministry of Public Security

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、缅甸、菲律宾、马来西亚等 200 个国家和地区 200 countries and regions such as China, Myanmar, Philippines, Malaysia

中国打击治理电信网络诈骗犯罪工作 取得了前所未有的历史性成就

China has made unprecedented historical achievements in cracking down on and controlling crimes of telecom and online fraud

近年来,电信网络诈骗犯罪正在世界各国快速发展蔓延,成为世界公害和全球性打击治理难题。 中国政府坚持守正创新,不断探索电信网络诈骗 犯罪打击治理之路,综合施策、多措并举,取得 了前所未有的历史性成就。

In recent years, telecom and online fraud crimes have developed and spread rapidly worldwide, which has become a global public nuisance and a global governance problem. The Chinese government adheres to upholding fundamental principles and breaking new ground, continuously explores the path of cracking down on telecom and online fraud crimes, and implements comprehensive and various measures, which has led to unprecedented historical achievements.

中国成功探索出破解打击治理难题的中国方案

China has explored a Chinese solution to this global problem through successful practice

20 世纪 90 年代,电信网络诈骗犯罪开始在中国出现,后 大肆蔓延变异,大量公民被骗。中国政府不断探索电信网 络诈骗犯罪的打击治理之路,坚持以人民为中心,注重源 头治理、综合治理,坚持齐抓共管、群防群治,以前所未 有的力度深入推进各项工作,坚决遏制此类犯罪高发多发 态势,取得了前所未有的历史性成就。2021 年,中国破 获电信网络诈骗案件数是5年前的5倍。自2021 年6月起, 此类案件在中国连续17 个月同比下降,快速上升势头得 到有效遏制。面对这一打击治理难题,中国用成功实践探 索出破解难题的中国方案:坚持以人民为中心,全面加强 "四专两合力"建设。



电信网络诈骗已成为全球性打击治理难题 Crimes of telecom and online fraud have become a global problem to solve

Telecom and online fraud began appearing in China in the 1990s, spreading wildly and affecting many citizens. The Chinese government continuously explores the path of cracking down on telecom and online fraud crimes. It adheres to a people-centered approach with the measures of paying attention to governance at the source and comprehensive governance, sticking to joint action and mass prevention and governance, advancing various tasks in depth with unprecedented efforts, and adhering to curbing the trend of frequent occurrences of cases, which has led to outstanding historical achievements. The number of telecom and online fraud cases solved in China in 2021 was five times that of five years ago. The incidence of such cases in China has declined yearly for 17 consecutive months since June 2021, effectively curbing the trend of frequent occurrences. Faced with this challenging problem, China has explored a Chinese solution through successful practice: adhering to the people-centered approach and comprehensively strengthening the development of special research. special teams, special case solving and expertise, internal synergy, and external synergy.

以"四专"为引领,工作效能不断提升

With the leading of special research, special teams, special case solving, and expertise, the working efficiency increases continuously

"四专"即"专题研究、专门队伍、专案攻坚、专业技术"。 一是加强专题研究,法律制度不断完善。中国政府研究制 定政策文件,颁布实施《反电信网络诈骗法》,出合法律 指导意见,为打击治理工作提供了强有力的支撑。二是加 强专门队伍,能力水平不断提升。中国政府坚持"以专治 专",成立专门机构、充实专门力量、加强专业培训,打 击治理能力水平实现跨越式提升。三是加强专案攻坚,打 击震慑不断强化。中国政府始终对电信网络诈骗犯罪保持 严打高压态势,近年来,连续部署开展"云剑""断卡""断 流"等专项行动,出重拳、下狠手,打击战果屡创新高。 四是加强专业技术,工作效能不断提高。中国政府强化技 术防范和预警提示,加强专业实验室建设,不断调整打击 防范措施,始终保持主动权。

238 网络安全保障保障网络安全,促进有序发展

–Strengthening special research to improve the legal system continuously. The Chinese government research and formulates policy documents and introduces China's Law on Combating Telecom and Online Fraud and other legal guiding opinions, which provides solid legal support for the crackdown work.

–Strengthening special teams to improve their capabilities and levels continuously. The Chinese government adheres to cracking down on such specialized crimes through special means. It has established special agencies, replenished special forces, and strengthened specialized training to realize leapfrog improvement in capabilities and levels of cracking down on telecom and online fraud.

–Strengthening special case solving to strengthen crackdown and deterrence continuously. The Chinese government has maintained severe combat against telecom and online fraud crimes. In recent years, The Chinese government has continued to deploy and launch the "Cloud Sword Operation", Breaking Card Operation", and "Breaking Flow Operation" to severely combat crimes of telecom and online fraud, which has achieved remarkable results and formed strong deterrence.

–Strengthening expertise to increase the working efficiency continuously. The Chinese government strengthens technical prevention, early warnings, and alerts, and the development of specialized laboratories, and continues to adjust crackdown and prevention measures and has kept the initiative and won expertise battles one after another.



抓好内部合力,全社会反诈工作格局初步形成

Advancing internal synergy to initially form a society–wide anti–fraud work pattern

中国政府始终坚持以人民为中心,统筹发展和安全,强化系统观念、法治思维,注重源头治理、综合治理,建立了由公安部牵头、25个部门单位共同参与的反诈工作机制,以及职责清晰、紧密衔接、整体联动、运转高效的全警反诈工作体系,全面落实金融、通信、互联网等行业监管主体责任,坚持齐抓共管、群防群治,广泛发动群众开展宣传防范,构建了"政府主导、部门主责、行业监管、有关方面齐抓共管、社会各界广泛参与"的全社会反诈工作格局。

The Chinese government always adheres to a people–centered approach, coordinates development and security, strengthens the system concept and the thinking about the rule of law, pays attention to governance at the source and comprehensive governance, establishes a system led by the Ministry of Public Security and participated in by 25 departments and entities and a whole–police–force anti–fraud working mechanism with clear responsibilities, close coordination, overall linkage, and efficient operation, comprehensively implements the responsibilities of regulatory in the financial, communications, Internet and other industries, sticks to joint action and mass prevention and governance and insists on the extensive mobilization of the masses. It has established a society–wide anti–fraud work pattern in which "the work is led by the government, primary responsibilities are taken by related departments, regulation is conducted by industries, joint actions are taken by relevant sides, and all sectors of society are involved".



Four-tiered anti-fraud centers have been established

Advancing internal synergy to form a society-wide anti-fraud work pattern initially

促成外部合力,国际司法合作不断加强

Facilitating external synergy to continuously strengthen international law enforcement and judicial cooperation

2010年,中国警方首次与菲律宾警方开展国际执法合作, 捣毁了"11.30"特大跨国电信网络诈骗犯罪集团。之后, 中国政府始终致力于履行国际义务,积极推进国际执法合 作,不断贡献中国智慧、中国方案和中国力量。在亚非方 向,中国先后与柬埔寨、菲律宾、阿联酋、肯尼亚等多国 开展打击电信网络诈骗犯罪执法合作,积累了成功经验, 形成了良好机制。在欧洲方向,2016年,中国与西班牙 警方联合开展"长城行动",成功捣毁13个电信网络诈 骗犯罪集团,抓获犯罪嫌疑人237名,成功将225名嫌 疑人引渡回中国,成为国际执法合作的典范。在多边领域, 2022年3月至6月,中国警方在国际刑警组织框架下, 与76个成员国警方共同参与反诈"曙光行动",捣毁设 在多国的诈骗窝点1770个,逮捕犯罪嫌疑人2000余名, 拦截非法资金5000余万美元。

In 2010, the first international law enforcement cooperation between Chinese police and Philippine police smashed the "11.30" extra-large transnational telecom and online fraud criminal group. Since then, the Chinese government has been committed to fulfilling its international obligations, actively advancing international law enforcement cooperation, and continuously contributing Chinese wisdom, solutions, and strength. In the Asia-Pacific region and Africa, China has successively conducted law enforcement cooperation with Cambodia, the Philippines, the United Arab Emirates, Kenya, etc., to crack down on crimes of telecom and online fraud, accumulating successful experience and forming suitable mechanisms. In Europe, "Operation Great Wall" conducted between Chinese police and Spanish police in 2016 successfully smashed 13 telecom and online fraud criminal groups, arrested 237 suspects, and extradited 225 suspects to China, which became a model of international law enforcement cooperation. In the multilateral sphere, Chinese police participated in the anti-fraud "Operation First Light" with the police of 76 member states within the framework of INTERPOL from March to June 2022, which smashed 1,770 fraud hideouts in multiple countries, arrested more than 2,000 suspects and intercepted more than USD 50 million of illegal funds.



中国警方押解电信网络诈骗犯罪嫌疑人回国 Chinese police escort suspects of telecom and online fraud back to China

深信服勒索病毒防护解决方案,持续保护东南亚用户数字安全

Sangfor's Ransomware Protection Solution Persistently Ensures Digital Security for Customers in Southeast Asia



深信服 Endpoint Secure 平台界面 User Interface of Endpoint Secure

勒索病毒是全球数字化发展主要网络威胁之一,已对 东南亚企业及政府造成了巨大损失。勒索病毒的攻击 方式多样并且持续在变化,这导致行业内始终缺乏全 面而高效的应对方法。深信服长期为东南亚用户提供 网络安全产品和服务,对如何高效防治勒索病毒作出 了不懈的努力。

Ransomware is one of the major cyber threats in global digital technology development and has inflicted considerable damage on enterprises and public service sectors in Southeast Asia. Ransomware attacks are diverse and constantly changing, resulting the industry lacking comprehensive and efficient countermeasures. Sangfor has been providing cybersecurity products and services to customers in Southeast Asia for a long time and is dedicated to exploring efficient ways to fight against ransomware.
深信服推出面向东南亚用户的一体化勒索病 毒防护解决方案

Sangfor Launched an Integrated Ransomvare Protection Solution for Customers in Southeast Asia

东南亚一直是勒索病毒肆虐的主要区域之一,深信服结合 东南亚用户防护基础不足的现状,推出了一体化的解决方 案,帮助了大量用户避免勒索病毒的侵害。东南亚地区尽 管互联网普及率较高,但整体网络安全意识和平均防护能 力仍然不足,深受勒索病毒困扰。勒索病毒防治本身是一 个系统工程,需要针对多个环节构建起防护、监测、响应 综合应对手段,依赖较多的资金投入和统筹管理。深信服 结合服务东南亚用户的实际经验,以及长期研究勒索病毒 的技术积累,在2020年1月推出了面向东南亚用户的勒 索病毒防护一体化解决方案,在马来西亚、印尼、菲律宾、 泰国等国家,帮助大量政府、跨国企业、中小企业等用户 开展了勒索病毒防治和应急响应,保护了它们的数字化转 型的成果。

Southeast Asia has been one of the main regions where ransomware has been prevalent. Considering the current situation of insufficient protection foundation of Southeast Asian users, Sangfor has launched an integrated solution, which has helped a large number of users avoid the infringement of ransomware. Although Southeast Asia has a high Internet penetration rate, the overall network security awareness and average protection capability are still insufficient and are plagued by ransomware. The prevention and treatment of ransomware is a systemic project that requires the construction of comprehensive countermeasures for protection, monitoring, and response measures in various stages and aspects and relies on significant capital investment and centralized management. Based on the experience of serving customers in Southeast Asia and the technical accumulation of long-term research on ransomware, Sangfor launched an integrated ransomware protection solution for customers in Southeast Asia in January 2020. The solution has helped numerous public service sectors, multinational enterprises, and small, medium-sized enterprises, and other users in countries such as Malaysia, Indonesia, the Philippines, and Thailand to implement protective and responsive measures against ransomware, thereby protecting their digital transformation achievement.



2021年加密数据的巨额勒索事件列举

Major Ransom Events with Large Payouts in $2021\,$



深信服科技研究并发布 《2021 勒索病毒趋势报告》 Sangfor published Ransomware Trends Report 2021

人工智能与平台化云服务相结合 全方面应对 勒索病毒攻击

Sangfor Integrated AI with Platform–based Cloud Services to Achieve Ransomware Protection in All Aspects

通过长期跟踪并研究勒索病毒,深信服针对勒索攻击边界 试探、病毒投放、加密勒索、横向扩散等各个阶段,提出 了一体化的防护解决方案,通过融合技术与管理,将勒索 病毒防护、应急响应、安全运营等措施进行整合,能够有 效预防、快速响应勒索病毒攻击。该方案创新性的将人工 智能技术应用于对勒索病毒识别,配合实时的全球安全资 讯收集,提高了安全设备对勒索软件检测的准确性,根据 国际权威机构 AVTEST 测试,深信服主流勒索病毒识别率 达到 100%。同时,该方案采用线上线下相结合的方式, 利用分布式的安全托管运营平台,将线上的高水平安全专 家进行集中赋能,提供 7*24 小时不间断监测,再配合深 信服在东南亚部署的本地化安全服务,帮助用户构建起一 个完整监测预警、应急响应体系,显著降低了用户勒索病 毒防护的门槛,并能够快速闭环处置每一次的勒索病毒攻 击,受到了东南亚用户的广泛好评。

Through long-term tracking and research on ransomware, Sangfor has developed an integrated ransomware protection solution focusing on various stages in a ransomware attack, including boundary exploration, virus release, cryptoviral extortion, and horizontal spread. The solution can effectively prevent and quickly respond to attacks by combining ransomware protection, emergency response, and security operations through integrated technology and management. Moreover, the solution innovatively applies AI technology to ransomware recognition and improves the ransomware recognition rate of security devices by collecting real-time threat intelligence across the globe. A report by AV-TEST, an independent research institute for IT security, shows that Sangfor achieved a 100% recognition rate for major ransomware. In addition, the solution integrates online and offline security measures, using a distributed security hosting operation platform to centralize and empower high-level security experts online, providing 7*24-hour uninterrupted monitoring coupled with the localized security services deployed in Southeast Asia. All these measures function together to deliver a complete monitoring, early warning, and emergency response system to customers, significantly simplifying ransomware protection for users and helping promptly address each ransomware attack in a closed loop. With these efforts, Sangfor has earned widespread acclaim from customers in Southeast Asia.





2023 合作伙伴大会 Sangfor Partner Summit 2023

用实际行动保护东南亚用户数字化健康持续 发展

Sangfor Takes Practical Actions to Ensure Healthy and Sustainable Digitization in Southeast Asia

在 2020-2022 这两年间,深信服的勒索病毒保护解决方 案已经为超过 1500 个东南亚用户提供了保障,最大限度 地减少了用户数字化业务的中断,保护了大量用户信息和 敏感数据不被窃取,范围涉足了东南亚的8个国家和地区, 在制造业、交通、医疗、教育、政府等 10 个主流行业中 均有服务案例。深信服安全服务团队持续协助东南亚客户 处置勒索病毒事件,已处置的典型勒索病毒攻击事件超过 200 起,累计提供的应急响应时间超过 4000 个小时,帮 助用户恢复的数据和业务系统资产总价值达数十亿美元。

From 2020 to 2022, Sangfor's ransomware protection solution has been deployed across eight countries and regions in Southeast Asia and applied in ten major industries, such as manufacturing, transportation, healthcare, education, and the public service sector. It has safeguarded more than 1,500 customers in Southeast Asia, minimized disruptions to digital

business, and shielded vast amounts of user information and sensitive data from unauthorized access. The security team of Sangfor consistently supports customers across Southeast Asia in responding to ransomware attacks. The team has handled more than 200 typical ransomware attacks, dedicated more than 4,000 hours to emergency response, and assisted customers in restoring data and business system assets valued at billions of dollars.



网络安全立法洞察

Cybersecurity Legislation Insights



《网络安全立法洞察》的研究领域与所涉及国家和地区 The Cybersecurity Legislation Insights Research areas and countries & regions covered



全球网络安全的发展日趋复杂,弘扬开放合作的网络安全理念、坚持发展与安全并重、鼓励与规范并举,构建更具 有弹性与前瞻性的网络安全立法体系。普华永道洞察分析全球网络安全立法的发展动向并提出了前瞻性建议。

Cybersecurity is rapidly evolving and becoming more intricate in its global landscape. It is essential to promote the concept of openness and cooperation in cybersecurity, insist on the equal importance of development and security, and encourage and regulate cybersecurity to build a more resilient and forward–looking cybersecurity legislative framework. In this regard, PwC has delved deep into global cybersecurity legislative trends and put forward insightful observations and forward–thinking suggestions.

网络安全立法多视角: 多国比较研究揭示共性与趋势

Multi–angled View on Cybersecurity Legislation: Insights and Patterns from a Comparative Anal– ysis Across Nations

网络安全是当今世界面临的重要挑战,为 了更好地了解不同国家在网络安全立法方 面的实践和差异,普华永道进行了一项多 国比较研究。本次研究的选取了在北美洲 的墨西哥和美国,南美洲的巴西和智利, 欧洲的德国、英国和欧盟,非洲的南非, 以及亚洲的中国、印度、新加坡、阿联酋、 越南和作为研究样本。这些国家和地区涵 盖了不同的社会经济发展水平、文化与地 理环境,在网络安全、隐私保护和数据治 理立法方面也有各自的特点与优势。普华 永道与来自这些国家和地区的多位网络安 全、合规及法律学者和利益相关者进行了 深入的访谈和调研,以获取各国在网络安 全立法方面的最新动态和趋势。



The countries and regions involved in the Cybersecurity Legislation Insights and global trends of cybersecurity legislation

Today's global landscape is grappling with diverse forms of cybersecurity challenges. PwC embarked on a comprehensive comparative study spanning multiple nations to grasp the varied legislative approaches countries adopt. The study focused on Mexico and the United States in North America; Brazil and Chile in South America; Germany, the United Kingdom (the UK), and the broader European Union in Europe; South Africa in Africa; and China, India, Singapore, the United Arab Emirates (the UAE), Vietnam, and in Asia. These regions, each distinct in socio–economic, cultural, and geographical terms, offer unique insights into cybersecurity, privacy, and data governance laws. In collaboration with experts in cybersecurity, compliance, and law from the above– selected countries, PwC delved into the most current regional trends in cybersecurity legislation through rigorous interviews and research.

构筑安全未来: 网络安全立法的五个发展建议

Building a secure future: Five recommendations for developing cybersecurity legislation

本次研究不仅深入探索了不同国家在网络安全立法方面的 共性和差异,同时也提出了五个网络安全立法的发展建议。

This study explores the commonalities and differences in cybersecurity legislation in different countries and puts forward five recommendations for developing cybersecurity legislation.

一、设计"负担得起"的网络安全立法

I. Design affordable cybersecurity legislation

在制定网络安全立法时,充分考虑经济效益影响,避免过 于复杂和难以实现的治理措施,避免对社会经济发展造成 不必要的负担。

In the realm of cybersecurity, the economic implications are paramount. Legislation should avoid overly intricate regulatory structures that could not be executed with reasonable feasibility and may harm socio–economic progress. Evaluate the implementation practicability when designing legislation to enhance security without stifling social and economic advancement.

二、夯实网络安全责任与责任共担机制

II. Recognize and embrace cybersecurity as a shared responsibility

网络安全问题涉及国家、企业和个人的共同利益和责任。 在制定网络立法时,立法者应倡导并强调网络安全是一项 共同责任,各方应积极参与并承担起保护网络安全的责任。 通过建立合作与信息共享机制,提高整体网络安全水平。

Cyber threats impact every facet of society, implicating governments, businesses, and individuals alike. Legislation should underscore the collective nature of this responsibility. The overall level of cybersecurity can be improved through the establishment of cooperation and information–sharing mechanisms.

三、构建网络安全基线,预防网络犯罪

III. Establishing cybersecurity baseline requirements to prevent cybercrime

构建网络安全基线是实施预防网络犯罪的关键步骤,基于 多层防御体系和零信任架构设计网络安全的防御基线,增 加实施网络犯罪的难度,提高网络犯罪成本,实现预防网 络犯罪。

Setting baseline cybersecurity standards is pivotal in curbing cybercrime. Implementing a multi–layered defense system and adopting a zero–trust framework can deter potential cyber criminals by elevating the challenges and costs associated with such endeavors. Prevention, in this context, is the best form of protection.

248 网络安全保障保障网络安全,促进有序发展

四、通过国际合作化解网络安全挑战

IV. Foster International Collaboration for Global Cybersecurity Resilience

网络安全是全球性的挑战,需要国家、企业和组织合作解决。立法者应积极通过多利益相关者与公私营合作等机制 推动网络安全的国际合作,共同推动网络安全整体水平的 提高。

Cybersecurity is a global challenge that requires cooperation among countries, enterprises and organizations. Legislators should actively promote international cooperation through mechanisms such as multi–stakeholder and public–private partnerships. Unite various stakeholders and raise the global benchmark for cybersecurity.

五、全面构建社会经济发展发展 和安全并重的网络安全立法

V. Comprehensively design cybersecurity legislation that maintains a balance between socio-economic development and security

网络安全立法应平衡安全和发展的需求,满足国家的网络 安全基本要求,同时也需要保障社会经济发展和数字经济 进步,推动国家、社会与经济的可持续发展。

Cybersecurity legislation should strike a harmonious balance between security imperatives and socio-economic aspirations. Ensuring robust security while nurturing the digital economy's growth is vital. This equilibrium is the linchpin for a nation's sustained development in today's digital age.



《网络安全立法洞察》 提出的五个网络安全立法发展建议

The five recommendations for developing cybersecurity legislation in the Cybersecurity Legislation Insights

促进网络安全可持续发展,促进网络安全立 法研究

Promote sustainable development of cybersecurity and research on cybersecurity legislation development

本次研究的成果为世界各国的立法者以及相关学者在制定 和研究网络安全法律与监管政策时提供了研究支持,特别 是在以下三个领域。

This study offers valuable insights that can guide legislators and scholars worldwide as they shape cybersecurity laws and regulatory strategies, particularly in the following three domains:

一、平衡网络安全立法与信息技术产业发展

I. Harmonizing Cybersecurity and IT Progress

网络安全立法应当平衡安全与发展的需求,避免治理措施 对社会整体发展造成过大的负面影响。通过兼顾网络安全 与经济发展,建立稳固的网络安全基础,推动数字经济持 续繁荣发展。

Cybersecurity legislation should balance the needs of security and development to avoid excessive negative impacts of governance measures on the overall development of society. By balancing cybersecurity and economic development, a solid foundation for cybersecurity should be established to promote the sustained and prosperous development of the digital economy.

二、推进多方合作构建繁荣安全的网络空间

II. Promote Multi-Party Cooperation in Building a Secure Digital Realm

国际合作与信息共享机制是推进网络安全的关键。通过与 其他国家和地区的密切合作,促进新型网络安全技术的创 新与实施。通过多方利益相关者伙伴关系和公私营伙伴关 系,共同构建稳定繁荣的网络安全生态。 Cybersecurity flourishes with collective effort. International alliances and open channels of information exchange are key to advancing cybersecurity. By collaborating across borders and sectors, governments can drive the evolution and adoption of cutting–edge cybersecurity solutions. Together, a resilient and thriving digital ecosystem can be built through multi– stakeholder and public–private alliances.

三、有效打击网络犯罪,提高网络犯罪的成本

III. Deter Cybercrime by Amplifying Its Associated Costs and Risks

通过在网络安全立法中引入多层防御体系和零信任架构等 创新理念,强化全社会的网络安全基线,提高整体网络安 全水平。这样助于增加网络犯罪的成本,更有效地打击网 络犯罪。

Integrating forward-thinking frameworks such as the Multi-Layer Defence (MLD) and Zero-Trust security model into cybersecurity legislation can fortify societal defenses against cyber threats. Such strategies can elevate the cybersecurity posture and escalate the costs and risks associated with committing cybercrimes. It helps to increase the cost of cybercrime and combat cybercrime more effectively.



普华永道墨西哥合伙人 Fernando Roman 在墨西哥互联网协会(Asociación de Internet MX) 举办的活动中介绍普华永道《网络安全立法洞察》 Fernando Roman, PwC Mexico Partner, presenting PwC's Cybersecurity Legislation Insights at an event organized by Asociación de Internet MX (Mexican Internet Association)

EY 数字化风险洞察系统:纵览全球, 护航数据安全智能合规

EY Digital Risk Insight System: A Global View to Escort Data Security and Intelligent Compliance



安永数字化风险洞察系统,推进网络安全发展, 营造国际数据安全空间

EY Digital Risk Insight System, Promoting the Development of Cybersecurity and Building an International Data Security Space

申报机构 Applying Institution

安水(中国)企业咨询有限公司

Ernst & Young (China) Advisory Limited



案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation_

中国、中国香港、中国台湾 China, Hong Kong (China), Taiwan (China)

EY 数字化风险洞察系统秉持企业网络安全与发展并重的 原则,在探索和规范数据安全领域的发展的同时,协助 跨国企业准确识别自身的信息安全保护水平,识别合规 风险点并敏捷制订风险控制措施,有助于营造公平的国 际数据安全空间。

EY Digital Risk Insight System adheres to the principle of giving equal importance to enterprise network security and development. While exploring and standardizing the development of data security, it assists multinational enterprises in accurately positioning their information security protection level, identifying compliance risk items, and agilely formulating risk control measures to contribute to creating a fair international data security space.

纵览全球安全标准,促进商业数据安全生态

An Overview of Global Security Standards to Promote an Ecosystem for Business Data Security

随着全球网络安全空间保护立法的不断趋严,企业的数据 安全合规需求迅速升级。为推动共建国际商业数据安全生态,安永正在通过数字化风险洞察系统作为抓手,向企业 提供有效的解决方案。

With the continuous updates and iterations of domestic and international data security laws, enterprise data security compliance requirement is rapidly expanding. Through its Digital Risk Insight System, EY offers practical solutions to enterprises to foster the development of an international business data security ecosystem.

该系统助力外商投资企业在落实中国境内的网络合规标准 并帮助企业发掘潜在安全风险,确保数据在向境内外流通 过程中的安全性和合规性,最终实现境内企业与世界的"安 全接轨"。

The system assists Multinational Corporations (MNCs) in implementing network compliance standards in China and helps them identify potential security risks, ensure security and compliance during data inbound and outbound transfers, and ultimately achieve a "secure convergence" between domestic enterprises and the rest of the world.



Global cybersecurity laws and regulations are updated in real-time, and all relevant control points are thoroughly analyzed, interpreted, consolidated, and categorized into groups



建立信息安全合规智库, 提供最新法律法规与执法动态的同时, 筛选与整合内容重点, 协助用户了解国际安全管理要求

Establish an information security compliance think tank to provide the latest laws, regulations, and enforcement developments while screening and integrating key content to aid users in comprehending international security management requirements

此外,作为面向全球的安全合规产品,系统内置不同国家 与区域的安全与隐私保护法律法规、风险评估标准及国际 安全管理标尺,致力于通晓各行业对国际信息安全标准, 促进国际商务合作过程中对信息安全的一致标准。尤其在 欧洲、美国、日本等高合规标准环境下,系统的应用能力 已经为多家企业提供跨境数据管理、区域性合规预评估、 当地法律政治环境调研等服务,协助企业顺利进行国际化 信息安全建设,为其急速的全球业务扩张提供了有力支持。

Additionally, as a globally oriented security compliance product, the system has built–in security and privacy protection laws and regulations of different countries and regions, risk assessment standards, and international security management benchmarks, and is committed to comprehending international information security standards across various industries and promoting consistent standards for information security during international business cooperation. Particularly in Europe, the United States, Japan, and other high compliance standard environments, the system has provided numerous enterprises with cross–border data management, regional compliance pre–assessment, and local legal and political environment research and other services, assisting them in smoothly establishing international information security and bolstering their rapid global business expansion.

以智能技术为基础,提供创新解决方案

Innovative Solutions Based on Intelligence Technology

EY 数字化风险洞察系统作为 "网络安全监管与合规智能 化"方向创新成果,曾成功入选首次《上海市网络安全产 业创新攻关成果目录》。该系统在风险管理领域中具备创 新实施能力,不仅引入了数据分析和 AI 等智能组件,更 从企业实际管理角度出发,通过创新工作流设计应对传统 信息安全风险管理中的痛点,有效地以数字化技术协助企 业更好地管理安全风险。

As an innovative achievement in the direction of "Intelligent Supervision and Compliance in Cybersecurity", the EY Digital Risk Insight System has been successfully selected for inclusion in the first "Shanghai Cybersecurity Industry Innovation Achievement Catalog". The system possesses cutting– edge capabilities in the area of risk management, not only pioneering the introduction of intelligent technologies such as data analysis and AI but also addressing the pain points in traditional information security risk management through innovative workflow design from the perspective of enterprise management, thereby effectively assisting enterprises to better manage security risks with digital technology.



通过数字技术能力, 打破传统风险洞察的固有模式。 在提供创新的评估解决方案的同时, 带给用户更佳的使用体验

Change the paradigm of traditional risk discovery through digital technology capabilities. Provide innovative assessment solutions while delivering a better user experience



系统不仅可以对企业自身数据安全风险进行管理,更可以 通过外发问卷等方式对企业关联方及第三方的安全能力智 能评价和打分,最终生成自动化的评估报告。这些评价结 果能够形成各个国家或行业的安全水位和最佳实践,为企 业提供可靠的参考和指导。同时,该系统还具有灵活嵌入 各企业现有的管理模式与评估流程中的能力,可以使其真 正成为企业风险管理中有力一环。

EY Digital Risk Insight System not only manages the enterprise's internal data security risks but also intelligently evaluates and scores the security capabilities of the enterprise's affiliates and third parties by sending out digitized questionnaires and ultimately generating automated assessment reports. These evaluation results can form the security levels and best practices for various countries or industries, providing references and guidance for MNC enterprises. In addition, the system can flexibly integrate into the existing management model and assessment workflows of various enterprises, truly becoming a powerful part of enterprise risk management.

从组合商业数据安全空间出发,携手构建国 际网络安全空间

Jointly Building an International Cybersecurity Space from a Consolidated Commercial Data Security Space

作为成熟的智能合规产品,EY风险洞察系统对于构建数 据安全空间具有一定的社会经济价值。其产品所提供的服 务,目的是为了向更多的企业提供数字化风险管理的方案, 在一定程度上保障外资、集团性质等类型企业的数据安全。 系统在为企业减少在人力与服务成本的同时,也帮助企业 实现了数据的变现。由小及大,系统所具备的实际能力也 适用于国际企业与企业之间、第三方与企业之间的管理。 系统可以适应多样化的合规环境,为企业全球扩张、企业 商务合作等场景提供适合的解决方案,为数字化时代的安 全保障做出了贡献,具备一定的社会价值。

As a mature, intelligent compliance product, the EY Digital Risk Insight System has specific socio–economic value for building a data security space. The offered services aim to provide more enterprises with digital risk management solutions and safeguard the data security of foreign– funded companies, group companies, and other types of enterprises to a certain extent. The system reduces the cost of human resources and services for enterprises while also realizing data monetization. From small to large scope, the actual capabilities possessed by the system are also applicable to managing relationships between international enterprises and relationships between third parties and enterprises. The system can adapt to various compliance environments, providing suitable solutions for global expansion and international business cooperation and contributing to the security of the digital era with a certain level of social value.



254 网络安全保障保障网络安全,促进有序发展

以体系化建设思路统筹数据安全, 实现数据、业务与安全的融合发展

Coordinating Data Security with Systematic Construction Ideas to Achieve the Integrated Development of Data, Business and Security



其他参与机构 Other participating organizations

北京亿赛通科技发展有限责任公司 Beijing Yisaitong Technology Development Co., LTD

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、中国香港、德国、日本等 10 个国家和地区 10 countries and regions such as China, Hong Kong (China), Germany, Japan 打造世界一流智慧物流平台企业 Build a world-class intelligent logistics platform enterprise

数字经济背景下,数据要素的价值日益凸显,安 全风险与挑战也随之而来。中国对网络安全、数 据安全的重视程度不断提升,《中华人民共和国 数据安全法》等法律法规相继颁布实施,全面落 实数据安全建设已成大势所趋。

In the context of the digital economy, the value of data elements has become more and more prominent, and security risks and challenges have also followed. China attaching greater importance to the cybersecurity and data security. With the Data Security Law of the People's Republic of China and other laws and regulations promulgated, comprehensive implementation of data security construction has become the general trend.

构建数据安全管理和技术体系,实现数据、 业务与安全的融合发展

Build a data security management and technology system to achieve the integrated development of data, business and security

在中国数据发展战略与安全需求的双重驱动下,中国外运 以保障数据安全为中心设计战略,在现有网络信息安全保 护措施基础上,参照全球先进的数据安全建设理念,结合 数据安全现状调研情况,从组织建设、制度流程、技术工具、 人员能力等方面开展建设,形成了覆盖数据全生命周期的 安全保护能力。通过数据安全治理体系建设,全方位保护 了数据资产安全,在风险可控的基础上完成数据的增值和 自由流转,保障了中国外运数据运营安全和安全运营。

Driven by China's data development strategy and self-security requirements, Sinotrans Co., LTD has designed a strategy centered on data security protection. Based on the existing network security protection

measures, and with reference to the global advanced data security construction concepts and combined with the current status quo of data security research, Sinotrans Co., LTD has formed a data security ability covering the whole life cycle of the data by the construction of organization, system process, technical tools, personnel capabilities and other aspects. Through the construction of a data security governance system, the data assets are comprehensively protected, the value–added and free circulation of data is achieved based on controllable risks, and the data operation security is guaranteed.

本案例适用于中国外运总部及下属全资公司、控股公司, 实施覆盖了欧洲、日本、香港、泰国、新加坡等 10 个国 家地区,对加强数据安全国际合作,推动跨境业务开展以 及促进全球产业发展具有重要的意义和价值。

This case applies to Sinotrans headquarters and its wholly-owned companies and holding companies. The implementation covers ten countries and regions, such as Europe, Japan, Hong Kong, Thailand, and Singapore. This case is of great significance and value for strengthening international cooperation on data security, promoting cross-border business and the development of global industry.





中国外运数据安全管理和技术体系 The data security management and technology system of Sinotrans

分步有序推进数据安全治理工作, 开创了物流业数据安全治理的先河

Promote data security governance step by step in an orderly manner, and it creates a precedent for logistics industry data security governance

中国外运率先在行业内开展数据安全治理体系建设,开创 了物流业数据安全治理体系建设的先河,具有一定的行业 引领性及创新性。同时,推动了跨境业务的开展,体现了 国际化特点。该案例实施路径如下:首先,以数据安全战 略规划为依据,明确数据安全建设方向和具体任务,匹配 对应的资源,推动数据安全工作开展。第二,以数据安全 治理为抓手,根据数据安全战略规划及数据安全管理需求, 定期开展数据安全治理活动。第三,以数据安全能力提升 为目标,明确数据安全责权关系,建立评价、监督机制, 确保数据安全技术保护工作有序开展。第四,以数据安全 运营过程为保障,确保数据安全保护体系建设成果的可持 续发展。第五,以数据安全及网信安全设施为支撑,确保 数据安全技术保护与网信安全技术保护的一致性、延续性。

Sinotrans Co., LTD took the lead in the construction of the data security governance system in the logistics industry, pioneered in the industry, with a certain industry-leading and innovative. Moreover, it promoted crossborder business and embodied the characteristics of internationalization. The implementation path was as follows: First, based on the data security strategic planning, the direction and specific tasks of data security construction were defined, the corresponding resources were matched to promote data security work. Second, with data security governance as the starting point, data security governance activities were carried out according to the data security strategic planning and data security management needs. Third, aiming at improving data security capability, the relationship between responsibilities and authority were defined for data security and an evaluation and supervision mechanism was established to ensure the orderly development of data security technology protection work. Fourth, the data security operation process was took as the guarantee to ensure the sustainable development of the data security protection system construction results. Fifth, utilizing data security and network security facilities, the consistency and continuity of data and network security technology protection are ensured.



中国外运物流业务信息系统 The logistics business information system of Sinotrans

引领行业数据安全发展,助推经济社会高质 量发展

Lead the industry development in data security and boost the high-quality development of the economy and society

一是结合中国外运数据安全建设优秀经验,积极配合行业 组织制定行业数据安全相关标准规范,引领行业数据安全 发展,推动整个行业数据安全建设工作的开展。二是通过 数据安全治理体系建设,打通数据孤岛,在保证数据安全 合规使用的基础上,构筑开放、公正、安全、合作的数据 价值流转环境,以最有效的方式保护数据安全,促进业务 健康发展。降低安全成本。三是精准开展安全建设工作, 可以控制数据安全风险或将风险带来的影响降至最低,更 安全有效地推动数据利用、共享和流通,从而更好地挖掘 和释放数据价值,快速释放数据生产力,助推经济社会高 质量发展。

First, combined with the excellent data security construction experience of Sinotrans, actively cooperates with industry organizations to formulate relevant standards and norms for industry data security, lead the industry development in data security, and promote the development of data security construction of the whole industry. On top of ensuring the safe and compliant use of data, the second is to open up data islands by constructing a data security governance system and building an open, fair, secure, and cooperative data value circulation environment to protect data security in the most effective way and promote the healthy development of business. The third is to accurately work at data security construction, which can control data security risks or minimize the impact of risks, promote data utilization, sharing, and circulation more safely and effectively to better excavate and release the value of data, quickly free data productivity, and promote high– quality economic and social development.



以智慧科技连接产业生态以数字物流推动产业进步

Connect industrial ecology with intelligent technology and promote industrial advancement with digital logistics





网络空间国际治理 前建互联网治理体系,促进公平正义

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





以互联网为代表的信息通信技术不断发展,推动 世界变成地球村,国际社会越来越成为你中有我、 我中有你的命运共同体,各方均有责任和义务 积极参与全球互联网治理,促进互联网普惠包 容发展,让互联网造福各国人民。

The continuous development of ICT, especially the Internet, has turned the world into a global village and made the international community more and more interconnected with a shared future. All parties have the responsibility and obligation to engage in global Internet governance to promote the inclusive development of the Internet and make the Internet beneficial to people of all countries.

搭建全球互联网治理交流和磋商的开放性平台

Building an open platform for global Internet governance exchanges and consultations

中国 IGF 设立于 2020 年,是由多方发起组建的就全球互联 网治理相关问题进行交流和磋商的、自下而上的开放性平台,已获得联合国互联网治理论坛(联合国 IGF)认证,其秘书 处工作由中国互联网协会承担。

Established in 2020, China IGF is an open bottom–up platform initiated by multi–stakeholders for exchanges and consultations on issues related to global Internet governance. It has been certified by the United Nations Internet Governance Forum (UN IGF), and the Internet Society of China undertakes its secretariat.

中国 IGF 旨在促进中国互联网社群积极参与全球互联网治理 以及联合国 IGF 进程,分享中国互联网治理最佳实践,加强 与国际社群的交流合作,助力联合国 IGF 在推动各方关注和 解决全球互联网治理问题上发挥其独特作用,推动携手构建 网络空间命运共同体。

China IGF aims to encourage the Chinese Internet community to engage in the global Internet governance process actively, share China's Internet governance best practices, strengthen exchanges and cooperation with the international community, support UN IGF to fulfill its unique role in facilitating discussion of global Internet governance issues and promote the joint building a community with a shared future in cyberspace. 中国 IGF 为中国互联网社群更好参与全球互联网治理提供 了重要的平台,同时也为国际社群了解和研究中国互联网 发展与治理提供了新的窗口,中国 IGF 积极促进与全球各 方共谋发展福祉,共同致力于维护和平、开放、合作的互 联网。

The China IGF provides an essential platform for the Chinese Internet community to better participate in global Internet governance. Also, it provides a new window for the international community to understand and study China's Internet development and governance. The China IGF actively promotes the development and welfare of all parties around the globe and is committed to maintaining a peaceful, open, and cooperative Internet.



中国 IGF 主任委员黄澄清主持 2022 年世界互联网大会全球发展倡议数字合作论坛

Mr. Huang Chengqing, General Director of China IGF, chaired the Global Development Initiative Digital Cooperation Forum at the World Internet Conference 2022

促进中外互联网治理交流合作

Promoting exchanges and cooperation on Internet governance between China and the international community

中国 IGF 得到了企业、行业组织、研究机构、高校等社会 各方的积极参与,致力于汇聚中国互联网产业和社群力量 更好地参与全球互联网治理进程,并积极发挥中外互联网 治理交流桥梁的作用,促进中国社群之间以及与国际各方 在互联网治理相关方面的交流互动与合作,凝聚中国社群 共识并产出方案、成果,向国际社会分享中国互联网治理 理念和贡献最佳实践。

With the active participation of private sectors, civil societies, research institutions, universities, and other parties, China IGF is committed to bringing together the strength of China's Internet industry to better engage in the global Internet governance process and actively playing the role of a bridge to promote exchanges and cooperation between the Chinese community and international parties in Internet governance–related aspects, as well as gathering the recommended messages or outputs for potential solutions and next steps toward the improvements on global and local Internet governance–related fields. With these efforts, it has built a good platform for sharing and contributing China's Internet governance concepts and best practices to the international community.

从 2020 至 2022 年,已成功举办三届中国互联网治理论坛, 为中外各方探讨互联网治理热点问题搭建高端交流平台。 联合国副秘书长刘振民、ISOC 总裁兼首席执行官 Andrew Sullivan、ICANN 董事会主席 Maarten Botterman、APNIC 总干事 Paul Wilson、日本互联网之父 Jun Murai 等众多国 际组织领导人和行业专家受邀参加论坛。

From 2020 to 2022, three annual meetings of China IGF were successfully held, building a high–end exchange platform for Chinese and international parties to discuss Internet governance issues. Leaderships of international organizations and industry experts such as Mr. Liu Zhenmin, UN Deputy Secretary–General, Mr. Andrew Sullivan, President and CEO of ISOC, Mr. Maarten Botterman, Chair of ICANN Board, Mr. Paul Wilson, Director General of APNIC, Mr. Jun Murai, Father of Internet in Japan delivered remarks or messages for the forum.





ICANN 首席安全官兼代理首席技术官 John Crain 为第二届中国互联网治理论坛致辞 Mr. John Crain, ICANN's CSO and Interim CTO, delivered an opening remark at the second China IGF annual meeting



2020年,举办"抓住数字机遇,共谋合作发展"国际研讨会,联合国副秘书长刘振民、巴基斯坦前总理 Shaukat Aziz、吉尔吉斯斯坦前总理 Djoomart Otorbaev、美国东西 方研究所总裁 Bruce W. McConnell、全球网络空间稳定委 员会委员 Wolfgang Kleinwachter、中国工程院院士邬贺铨 等国际政要、中外知名专家学者参会。时任中国国务委员 兼外长王毅在会上提出《全球数据安全倡议》,引起国际 社会广泛关注。

In 2020, the International Seminar on "Seizing Digital Opportunities for Cooperation and Development" was held by China IGF. Mr. Liu Zhenmin, UN Deputy Secretary–General, Mr. Shaukat Aziz, Former Prime Minister of Pakistan, Mr. Djoomart Otorbaev, Former Prime Minister of Kyrgyzstan, Mr. Bruce W. McConnell, President of the East–West Institute, Mr. Wolfgang Kleinwachter, Academician of the Global Commission on Stability in Cyberspace, Mr. Wu Hequan, Member of the Chinese Academy of Engineering and other international dignitaries and well–known experts and scholars from home and abroad attended the seminar. During the seminar, Mr. Wang Yi, then Chinese State Councilor and Foreign Minister, put forward the Global Initiative on Data Security, which attracted wide attention from the international community.



中国 IGF 举办 "抓住数字机遇,共谋合作发展"国际研讨会 China IGF held the International Seminar on "Seizing Digital Opportunities for Cooperation and Development"

促进中国互联网社群参与全球互联网治理进程

Promoting the Chinese Internet community to participate in the global Internet governance process

参与联合国 IGF 及相关国际互联网治理进程,分享中国互联 网治理最佳实践和贡献治理智慧。在 2022 年联合国 IGF 期 间,与乍得 IGF、尼泊尔 IGF、尼日利亚 IGF、法国 IGF 联合 举办"儿童上网保护主题研讨会",并在发言中宣介中国在 保护儿童上网方面所制定的政策、采取的有效措施,为国际 社会提供了良好的治理典范和借鉴。

China IGF actively participates in the UN IGF and related international Internet governance processes to share China's Internet governance best practices. During the UN IGF 2022, China IGF jointly held a NRI workshop session on "Child Online Protection" with partners Chad IGF, Nepal IGF, Nigeria IGF, and France IGF, introducing China's policies and effective measures to protect children online, provided the international community with a good governance model and reference.

2023 年 4 月,组织社群向"全球数字契约"献言。积极 响应联合国号召,中国 IGF 联合中国互联网社群专家向联 合国秘书长技术特使办公室提交"全球数字契约"(Global Digital Compact)建言文稿,就未来如何构建一个共建共 治共享的数字社会治理体系贡献中国智慧。此外,中国 IGF 还于 2023 年 3 月成功推荐中国 IGF 常务副主任委员 张晓作为中国社群代表出席联合国 IGF 专家组会议,分享 中国互联网治理经验。

Organize community contributions to the Global Digital Compact. In response to the call of the United Nations, China IGF, together with Chinese Internet community experts, submitted input to Global Digital Compact to the United Nations Office of the Secretary–General' s Envoy on Technical in April 2023, contributing Chinese wisdom on how to build a digital social governance system of shared governance and sharing in the future. In addition, Ms. Zhang Xiao, Executive Deputy Director of China IGF, was nominated to attend the UN IGF Expert Group Meeting as a representative of the Chinese community in March 2023 to share China' s Internet governance experience.

通过组织各类培训讲座以及活动,中国 IGF 致力于培养新 生力量,鼓励更多青年人关注互联网治理、投身参与全球 互联网治理进程,为推动构建更加公平合理、开放包容、 安全稳定、富有生机活力的网络空间贡献力量。

By organizing various training seminars and activities, China IGF is committed to cultivating new forces, encouraging more young people to learn about Internet governance, and actively participating in the governance process, which contributes to constructing a more fair, reasonable, open, inclusive, secure, stable and vibrant cyberspace.



在 2022 联合国 IGF 期间举办儿童上网保护主题研讨会 Co-organized the NRIs session on "Child Online Protection" at UN IGF 2022



CHINA IGF SOCIAL NIGHT in Kyoto



举办中国 IGF 之夜活动 Hosted China IGF Social Night at the 18th UN IGF

China IGF Input to the Global Digital Compact

To respond to the call of contributing to the Summit of the Future and the Global Digital Compact (GDC), the China IGF delivered an open proposal to invite the Chinese Internet community to join the GDC-related consultation process and contribute input from different expertise. The community actively joined the process and shared their knowledge and insights to input as follows.

中国 IGF 向联合国秘书长技术特使办公室提交 "全球数字契约"(Global Digital Compact)建言文稿

China IGF submitted the input to Global Digital Compact to the UN Office of the Secretary-General's Envoy on Technical



全球智慧城市大会: 促进全球城市协同发展,建立互信合作机制

Smart City Expo World Congress: Promoting Global Urban Collaborative Development and Establishing Mechanisms for Trust and Cooperation



申报机构 Applying Institution

上海明日城市企业发展有限公司

Shanghai Tomorrow City & Enterprise Development. Co.,Ltd



其他参与机构 Other participating organizations

欧洲联盟委员会、西班牙外贸投资促进局、世界城市和地方政 府联合组织、联合国人居署、世界银行集团、世界经济论坛、 WUPENiCity(世界规划教育组织WUPEN及联合国教科文组织国 际工程科技知识中心智能城市服务系统IKCEST-iCity)、中国电动 汽车百人会、中国生产力学会、财新智库、上海长三角安全应急 产业促进中心

European Union Commission, ICEX, World Organization of United Cities and Local Governments, United Nations Human Settlements Programme (UN–Habitat), World Bank Group, World Economic Forum, WUPENiCity (World Planning Education Network &IKCEST–iCity), China EV100, China Academy of Productivity Science, Caixin Think Tank, Shanghai Yangtze River Delta Safety and Emergency Industry Promotion Center 全球智慧城市大会现场 (西班牙巴塞罗那) Smart City Expo World Congress (Barcelona, Spain)

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

中国、西班牙、美国、日本等 146 个国家

146 countries and regions such as China, Spain, United States of America, Japan

全球智慧城市大会于 2011 年在西班牙巴塞罗那创 办。作为全球最知名的国际盛会之一,受到全球 近 1000 个城市的积极响应,是一个以城市参与为 主,与企业共融共生,专注于城市智慧化和可持 续发展的国际生态平台。

Smart City Expo World Congress (SCEWC) was first launched in Barcelona, Spain 2011. Recognized as one of the premier international events, it has garnered active engagement from close to 1,000 cities worldwide. SCEWC is a global platform championing urban intelligence and sustainable development, primarily focusing on city–led initiatives and robust integration with the business sector.

其他参与机构 LOGO Other Participating Organizations Logo



作为智慧城市交流平台,全球智慧城市大会为城市的可持 续发展和居民生活质量的提升注入了新动力。

As a nexus for smart city dialogues, the Smart City Expo World Congress injects new momentum into sustainable urban development and augments the quality of life for its inhabitants.

全球智慧城市大会建立了与联合国人居署、世界经济论坛、 世界银行、美洲开发银行、欧盟、世界城市和地方政府联 盟等国际机构的长期战略合作关系,全球智慧城市大会致 力于为全球核心利益相关方(政府、企业、行业机构、学 术界和社会团体)搭建一个公平、包容且面向未来的智慧 城市交流合作和共享平台。大会通过知识共享、经验交流 和对话,促进了全球城市之间,政商学之间协同合作,积 极推动全球城市科技治理体系和数字经济的治理与发展; 通过分享城市智慧发展最佳实践和创新解决方案,为全球 城市提供产业洞察和经验,助力城市在数字化时代实现可 持续发展和提升居民生活质量。

SCEWC has cultivated deep-rooted strategic alliances with prestigious global organizations, including UN–Habitat, the World Economic Forum, the World Bank, the Inter–American Development Bank, the European Union, and the World Organization of the United Cities and the Local Governments. SCEWC aims to provide a balanced, inclusive, and forward–thinking platform for diverse global stakeholders, including governments, businesses, industry entities, academic institutions, and civic organizations. By facilitating knowledge exchange, sharing experiences, and fostering dialogue, SCEWC underscores the synergy between global cities and the tripartite nexus of politics, commerce, and academia. It fervently drives global urban tech governance advancements and the burgeoning digital economy. Through showcasing exemplary urban development practices and innovative solutions, SCEWC equips cities worldwide with pivotal insights, empowering them to navigate the challenges of the digital age and elevate their citizens' quality of life.



历届大会盛况(中国区) Highlights from Previous Events (China)



历届大会盛况(西班牙巴塞罗那) Highlights from Previous Events (Barcelona, Spain)

全球智慧城市大会以三大核心创新点为城 市构建了一个多元、开放的交流合作平台

Smart City Expo World Congress has sculpted a diverse and open platform for cities, underpinned by three core innovative tenets

 1. 融合模式的创新:大会涵盖全球高峰论坛、世界智慧 城市大奖颁典礼,世界智慧城市展览等多个板块,构建 了一个多元互动平台。旨在促进政府、企业和学术界的 深度对话和合作,汇聚关键洞察和全球最佳实践,提升 大会参与方影响力。

 Innovative Integration: SCEWC seamlessly blends the global Congress, the World Smart City Awards, and the Expo, forging a dynamic and comprehensive platform. Its mission is to foster deep-rooted dialogues and partnerships between governments, businesses, and the academic world, gathering pivotal insights and best practices from across the globe to elevate the prominence of its participants. 2.核心功能和主要挑战的创新:大会重点关注智慧城市发展的八大核心功能和主要挑战,包括使能技术、能源与环境、出行、治理、宜居和包容、产业与经济、基础设施和建筑、安全与应急。涉及的产业领域广泛,涵盖人工智能、低碳、物联网、气候变化、金融、大数据、垃圾处理、新能源、云计算、可持续发展、智能电力、建筑低碳排放等方面。

2. Focused Innovation on Core Functions and Challenges: SCEWC focuses on eight essential facets and key challenges integral to smart city progression, including enabling technologies, energy and environment, mobility, governance, living and inclusion, industry and economy, infrastructure and building, and safety and resilience. The involved sectors are vast and varied, ranging from artificial intelligence, low–carbon initiatives, IoT, climate change, finance, big data, waste management, renewable energy, cloud computing, sustainable development, and intelligent power systems to eco–friendly construction.

3. 垂直领域的创新探索:除了大会主区域的活动外, 还有140多场周边同期活动,进一步夯实了大会在智 慧城市垂直领域的探索和内容,其中包括全球明日出 行大会(探索城市出行模式)、全球明日建筑大会(探 索基础设施与建筑更新)、全球明日海洋大会(探索 蓝色经济发展)、Puzzle-X(新材料创新和发展

)、BForPlanet(探索城市绿色可持续发展战略与行动 计划)等活动。

3. Diving Deep into Vertical Domains: Besides the primary congress arena, over 140 peripheral and concurrent events reinforce SCEWC's commitment to delving deep into specialized smart city sectors, including the Tomorrow. Mobility World Congress (exploring urban mobility models), Tomorrow.Building World Congress (exploring infrastructure and building updates), Tomorrow.Ocean World Congress (exploring the development of the Blue Economy), Puzzle–XPuzzle–X (New Material Innovation and Development), BForPlanet (Exploring Urban Green Sustainable Development Strategy and Action Plan), and other events.



2022 全球智慧城市大会现场(巴塞罗那) 2022 Smart City Expo World Congress(Barcelona)



2022 全球智慧城市大会·成都现场 2022 Smart City Expo World Congress Chengdu Stage 2022 全球明日出行大会现场 2022



2022 全球明日出行大会现场 2022 Tomorrow.Mobility World Congress

全球智慧城市大会不仅为与会者提供了一个前沿的交流 与合作平台,更重要的是,它为全球城市的可持续发展 注入了新的活力和智慧。

Smart City Expo World Congress not only equips participants with a vanguard platform for communication and collaboration but also rejuvenates global urban sustainable development with fresh vigor and intelligence.

1. 全球参与和互动:2019年,大会聚集了来自超过
 134个国家的700多个城市的代表,41个国家政府展
 团参展;1000多家专注于智慧城市行业的优秀企业,
 60,000名各行业专家。

 Global Participation and Interaction: In 2019, SCEWC brought together representatives from over 700 cities across more than 134 countries, with 41 national government delegations participating in the exhibition. Over 1,000 leading companies dedicated to the smart city industry and 60,000 experts from various sectors attended.

2. 经济效益:举办 10 年以来,大会持续凸显那些一直 贯彻落实智慧城市创新与发展的城市,展示各种创新科 技和解决方案。2019 年展览面积增长了 15%,为举办 地巴塞罗那带来了 9000 万欧元的会展经济效益。预计 2023 年,大会规模将继续扩大。

2. Economic Benefits: Over its 10-year history, the congress has consistently highlighted cities that have been steadfast in implementing smart city innovations and developments, showcasing a plethora of innovative technologies and solutions. In 2019, the exhibition area grew by 15%, bringing an economic benefit of 90 million euros to the host city, Barcelona. The scale of the congress is expected to expand further by 2023.

3. 国际合作与交流:对城市和企业而言,大会是一个结 识全球各大在城市创新规划领域具有真知灼见人物的机 会,例如市长、城市执行部门负责人、专家、企业高管等。 全球合作伙伴及参会企业包括但不限于:亚马逊,微软, 德勤,戴尔,霍尼韦尔等。

3. International Collaboration and Exchange: For cities and enterprises, SCEWC offers an opportunity to connect with globally recognized visionaries in the realm of urban innovation and planning, including mayors, heads of city executive departments, experts, and corporate executives. Global partners and participating companies include, but are not limited to, Amazon, Microsoft, Deloitte, Dell, and Honeywell.

4. 地方化与全球化相结合:大会的影响力已经遍及全 球各地,从巴塞罗那扩展到库里提巴、多哈、拉美峰会、 北美等地,成为一个蓬勃发展的智慧城市领域的重要 盛会。至今,该大会已经在上海(2020年、2021年)、 成都(2022年)、长沙(2023年)等城市成功举办 中国年度大会,并受到中央政府、地方政府和相关机 构企业的全力支持。

4. SCEWC' s influence has radiated globally, proliferating from Barcelona to Curitiba, Doha, the Latin America Summit, North America, and beyond, marking its stature as a pivotal event in the burgeoning smart city arena. To date, the congress has successfully orchestrated annual events in Shanghai (2020, 2021) and Chengdu (2022) and the 2023 event in Changsha, receiving the unwavering support from the central government, local administrations and pertinent institutions and enterprises.



除线下大会,还设立了"世界智慧城市大奖"表彰城市 的创新与智慧发展,且推出了线上数字平台"明日城市", 促进全球城市间的科技与人文交流,共同推动智慧城市 的可持续进步。

In tandem with the offline congress, the World Smart City Awards was conceived to recognize and champion cities' innovation and intelligent evolution. SCEWC also unveiled the online digital platform "Tomorrow. City" to foster technological and cultural exchanges between global cities, collectively advancing the sustainable progress of smart cities.

 世界智慧城市大奖的设立旨在发掘与宣传城市在智慧 化、可持续化以及融合化发展中所面临的挑战及优秀案 例成果;城市和社会服务的创新技术和解决方案得到更 广泛的应用,促使全球城市智慧互联互通和共同繁荣。

 The establishment of the World Smart City Awards aims to unearth and publicize challenges and stellar case results faced by cities in intelligence, sustainability, and integration development. 2. 大会在 2019 年上线了线上数字平台"明日城市 (Tomorrow.City)",旨在构建一个全球网络来展示 优秀案例和城市风采,促进孵化创新与产学研国际合 作,并为未来城市智慧发展提供案例库、工具箱和解 决方案池,增进全球智慧城市可持续发展。

2. SCEWC launched the "Tomorrow City" digital platform in 2019 with the vision of erecting a global network to showcase exemplary cases and city profiles, promote incubation, innovation, and international collaboration, and provide a case library, toolbox, and solution pool for the future development of smart cities, bolstering the sustainable growth of global smart cities.



2022 年世界智慧城市大奖 2022 World Smart City Awards



明日城市线上数字社区 Tomorrow.City Online Platform

APEC 数字技术防疫促进经济复苏和社会可持续发展

Going Digital to Promote Resilience and Sustainable Growth in Response to COVID-19





APEC Workshop: Going Digital to Build Resilience and Sustainable Growth in Response to COVID-19 14 April 2022

> APEC 数字技术防疫促进经济复苏和社会可持续发展研讨会 APEC Workshop on Going Digital to Build Resilience and Sustainable Growth in Response to COVID-19

自报机构 Applying Institution

国家工业信息安全发展研究中心

China Industrial Control Systems Cyber Emergency Response Team (CIC)



/ 案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

美国、中国、文莱、印度尼西亚等 10 个国家和地区

10 countries and regions such as United States of America, China, Brunei, Indonesia

2020 年以来,新冠病毒频繁变异,疫情防控面临挑战,世界经济脆弱复苏。期间,数字技术在支持防控疫情、恢复生产生活、维护产业链稳定、强化中小微企业抗风险能力等方面发挥了重要作用。为进一步发挥数字技术应用潜力,更好促进疫后经济复苏,中国与 APEC 各经济体共同探讨数字技术防疫、促进经济复苏和社会可持续发展的新路径。

Since 2020, coronavirus has mutated frequently, epidemic prevention and control have faced significant challenges, and economic recovery has been fragile. During this period, digital technology has played an essential role in supporting the prevention and management of the pandemic, helping resume work and normal life, keeping the industrial chain stable, and strengthening the risk–resistance capability of MSMEs. To further develop the potential of digital technology applications and promote post–pandemic economic recovery, China and APEC economies jointly explore new paths for digital technology to encourage the prevention of epidemics, economic recovery, and sustainable social development.

一、多方汇聚,共商数字技术赋能新路径

1. Multi-party Gathered to Discuss the New Paths of Digital Technology Empowerment

通过数字技术促进 APEC 地区疫后经济复苏已经成为 APEC 重要议题之一。《2040 年亚太经合组织布特拉加亚 愿景》将"创新和数字化"作为 APEC 未来三大经济驱动 力之一,《2021 年亚太经合组织领导人宣言》中也指出"亚 太经济合作组织经济体重申将团结合作应对疫情,确保区 域以更加创新、包容和可持续方式恢复增长"。

Facilitating post-pandemic economic recovery in the APEC region through digital technology has become one of the critical issues of APEC. The APEC Putrajaya Vision 2040 identifies "Innovation and Digitalisation" as one of the three key economic drivers of APEC in the future, and the 2021 APEC Leaders' Declaration states that "APEC economies have reaffirmed their commitment to join together; to respond to the immediate crisis generated by the pandemic through urgent work; and to strengthen our cooperation so that our region can return to growth in a way that is more innovative, inclusive and sustainable."



线下会场场景 Offline Venue Scene



合经价141\农共问参与以比 Representatives from APEC Economics Jointly Participating in the Discussion

为了与 APEC 各经济体共同探索数字技术防疫及促进经济 增长的成功经验,在工业和信息化部的指导下,国家工业 信息安全发展研究中心于 2021 年 11 月在 APEC 电信工作 组下确立研究项目《APEC 数字技术防疫促进经济复苏和 社会可持续发展》。2022 年 4 月,国家工业信息安全发 展研究中心以线上线下相结合的形式成功举办"APEC 数 字技术防疫促进经济复苏和社会可持续发展研讨会",来 自文莱、中国、印尼、韩国、墨西哥、新西兰、秘鲁、俄 罗斯、泰国和美国等 10 个 APEC 成员经济体的 50 余名政 府官员、学术专家、产业界代表参加了会议。

To explore the successful experience of digital technology in preventing epidemics and promoting economic growth in APEC economies, under the guidance of the Ministry of Industry and Information Technology, China Industrial Control Systems Cyber Emergency Response Team (CIC) set up a research project entitled Going Digital to Build Resilience and Sustainable Growth in Response to COVID–19 under the APEC Telecommunications Working Group (TEL) in November 2021. In April 2022, CIC successfully organized the "APEC Workshop on Going Digital to Build Resilience and Sustainable Growth in Response to COVID–19" online and offline with more than 50 government officials, academic experts, industry representatives from 10 APEC member economies, including Brunei, China, Indonesia, South Korea, Mexico, New Zealand, Peru, Russia, Thailand, and the United States participating in this workshop.

二、细化领域, 共享全球数字技术应用新实践

2. Domain Specified to Share New Practices in Global Digital Technology Application

该项目和研讨会的主要内容包含三大领域:

一是数字技术助力防控疫情。分享数字技术在助力疫情防控 方面的应用,包括大数据精准防控、人工智能辅助诊断、 互联网医疗等,并讨论数字技术在降低医疗费用方面发挥 的作用。

The main content of the project and the workshop includes three main areas:

Firstly, the patterns of how digital technology assists in preventing and controlling the pandemic. Participants shared the applications of digital technology in helping epidemic prevention and control, including big data precision prevention and control, artificial intelligence–assisted diagnosis, and Internet healthcare, and discussed the role of digital technology in reducing medical costs.





二是数字技术助力经济复新。分享后疫情时代蓬勃发展的数字经济新技术新模式新业态,包括智能制造、直播电商、远程办公等,并分析上述新模式新业态在后疫情时代的发展趋势和对 APEC 地区的影响。

Secondly, the way digital technology enables economic recovery. Participants shared the digital economy's new technologies, modes, and forms that have flourished in the post–pandemic era, including smart manufacturing, live e–commerce, and remote work. They analyzed the development trend of the above new business models and forms in the post–pandemic period and their impact on the APEC region.

三是数据应用与隐私保护。讨论如何平衡数字技术创新应用 和个人数据和隐私保护之间的关系,分享各经济体相关政 策、经验和实践。

Thirdly, data application and privacy protection. Participants discussed how to balance the relationship between innovative applications of digital technology and the protection of personal data and privacy and shared relevant policies, experiences, and practices of economies.



三、添砖加瓦,丰富 APEC 研究成果库

3. Contributing to the Enrichment of the APEC Research $\operatorname{Repository}$

通过案头研究、实地调研、召开研讨会等形式,该项目 较好地收集了 APEC 成员经济体通过数字技术促进疫情防 控、经济复苏及社会可持续发展的经验做法、政策实践和 解决方案,有效促进 APEC 成员经济体在数字化防疫及经 济发展方面的实践和经验交流。基于这些材料,项目形成 了《APEC 数字技术防疫促进经济复苏和社会可持续发展 研究报告》,并于 2023 年 4 月通过各经济体审议,正式 收录入 APEC 电信工作组成果库中,为更广泛的地区发展 数字经济、促进数字技术应用提供指引和参考。



项目结项报告 Project Summary Report

Through desk research, field research, workshops, and other forms, the project has comprehensively collected the experiences, policy practices, and solutions of APEC member economies in promoting epidemic prevention and control, economic recovery, and sustainable social development through digital technology. Also, it effectively promoted the exchange of practices and experiences among APEC member economies regarding digital epidemic prevention and economic development. Based on these materials, the project has formed the report on Going Digital to Build Resilience and Sustainable Growth in Response to COVID–19, endorsed by APEC economies in April 2023 and included in APEC TEL's repository. The report will continue to provide guidance and reference for developing the digital economy and promoting digital technology applications in a broader scope.

中国一东盟网络安全交流培训中心, 着力推动中国与东盟国家网络安全产业发展

Focusing on Promoting the Development of Cybersecurity Industry in China and ASEAN Countries



2019年10月29日, 中国一东盟网络安全交流 培训中心正式揭牌 CHINA-ASEAN cybersecurity

exchange and training centre officially inaugurated on 29 October 2019

申报机构 Applying Institution

数字广西集团有限公司

Digital Guangxi Group Co., Ltd



其他参与机构 Other participating organizations

广西壮族自治区工业和信息化厅

广西壮族自治区通信管理局



中国共产党广西壮族自治区委员会网络安全和信息化委员会办公室

广西数广威奇科技有限公司

Department of Industry and Information Technology of Guangxi Zhuang Autonomous Region, Guangxi Zhuang Autonomous Region Communications Bureau, Office of the network security and informatization committee of the Guangxi Zhuang Autonomous Region Committee of the Communist Party of China, Digital Guangxi Wei Qi Technology Co., Ltd

Global Governance in Cyberspace

Building a System of Global Governance **277** in Cyberspace to Promote Equity and Justice

案例涉及的国家和地区 Countries and Regions Covered or Involved in the Implementation

柬埔寨、印度尼西亚、老挝、 马来西亚等 8 个国家和地区 8 countries and regions such as Cambodia, Indonesia, Laos, Malaysia

网络安全已成为全球治理领域的重要议题,中国— 东盟网络安全交流培训中心以中国和东盟国家网络 空间安全战略为指引,发挥广西作为中国与东盟良 好多边合作中心的优势,打造成为立足广西,面向 中国,辐射东盟的数字经济领域技术输出及人才培 养龙头基地。

Cybersecurity has become an critical issue in the field of global governance, and the China–ASEAN Cybersecurity exchange and training center guided by the cyberspace security strategies of China and ASEAN countries and taking advantage of Guangxi's position as a center of good multilateral cooperation between China and ASEAN, will build itself into a leading base for technology output and talent training in the field of digital economy based in Guangxi, facing China and radiating to ASEAN.

共筑中国—东盟网络安全命运共同体、推进 21 世纪数据丝绸之路,建设形成以广西为 重要支点的中国和东盟信息枢纽

Building a China–ASEAN community with a shared future in cyberspace, promoting the 21st century data silk road, and constructing and forming an information hub for China and ASEAN with Guangxi as an important pivot point



2019 年 10 月,中国—东盟网络安全交流培训中心在位于 中国—东盟信息港广西南宁核心基地的五象新区广西投资 集团数字经济示范基地正式启用。中国—东盟网络安全交 流培训中心立足广西区位优势,与柬埔寨、印度尼西亚、 老挝、马来西亚、缅甸、新加坡、泰国、越南等东盟国家 超 20 家企业、院校和科研机构在网络安全、数字经济领 域不断深化交流与合作,通过联合网络安全知名企业和专 业机构,以系统化的网络安全课程学习、全方位的网络安 全实训演练,培养具备强实操能力的实战型应用人才,打 造网络安全人才培养、技术创新交流、促进产业发展、建 设融合生长的良好生态环境,为中国及东盟国家网络安全 交流搭建沟通桥梁,深化互信与合作。 In October 2019, the China-ASEAN cyber security exchange and training center was officially opened at the Digital Economy Demonstration Base of Guangxi Investment Group in Wuxiang New District, located in the core base of China-ASEAN Information Port in Nanning, Guangxi. China-ASEAN Network Security Exchange and Training Center, based on Guangxi's location advantages, has deepened exchanges and cooperation with more than 20 enterprises, colleges and universities, and scientific research institutes of ASEAN countries, including Cambodia, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, and Vietnam, in the fields of network security and digital economy. By collaborating with famous network security enterprises and professional organizations to cultivate combatoriented application talents with strong practical skills through systematic network security courses and all-around network security practical training exercises, it strives to create a favorable ecological environment for the cultivation of cyber security talents, exchange of technological innovation, promotion of industrial development, and construction of integrated growth and build a communication bridge for cyber security exchanges between China and ASEAN countries, and to deepen mutual trust and cooperation.

以构建"三平台、三中心"为载体,中国─ 东盟网络安全交流培训中心着力发挥强纽带 作用助推国际交流合作

Taking the construction of "three platforms and three centers" as a carrier, the China–ASEAN network security exchange and training center has been striving to play a substantial role in promoting international exchanges and cooperation

中国一东盟网络安全交流培训中心以"三平台、三中心"的规划为建设思想,打造网络空间安全人才培养平台、技术交流研讨平台、国际赛事举办平台,提供优良的会展、培训场地,专业实战靶场,行业专家,优质师资资源,舒适的食宿环境,满足培训全系统全流程需求。



China-ASEAN cyber security exchange and training centre training and practical training center

The China–ASEAN network security exchange and training center takes the planning of "three platforms and three centers" as its construction idea, creates a platform for cultivating cyberspace security talents, a platform for technical exchanges and seminars, and a platform for organizing international competitions, and provides excellent exhibition and training venues, a professional shooting range, industry experts, high–quality teachers and resources, and a comfortable accommodation environment to meet the needs of the whole process of the training system.

通过聚集一流网安学院和一流网安企业的教授学者、技术专家,建立专家师资库,充分挖掘不同专家在各自领域的专业特长及影响力,创建教学材料、开发培训方案;通过开展国际间的技术交流活动,邀请各国顶尖专家演讲与对话,向中国和东盟各国展现最具含金量、突破性的安全议题,创造一个国际性信息安全领域极客交流平台;通过建设网络安全对抗平台及综合靶场,为国际网络安全竞赛提供综合赛事举办能力。致力打造成为深化与东盟国家及全球全方位交流合作的重要纽带,助推区域数字经济创新发展。

By gathering professors, scholars, and technical experts from first-class cyber security colleges and first-class cyber security enterprises, we will establish an expert faculty database, fully explore the professional expertise and influence of different experts in their respective fields, create teaching materials and develop training programs; by carrying out international technical exchanges, we will invite the top experts from various countries to give speeches and have dialogues, and show the most golden and ground-breaking security issues to China and ASEAN countries to create an international information security exchange platform. It provides comprehensive event organizing capabilities for international cyber security competitions by the construction of a cyber security confrontation platform and a comprehensive shooting range. It is committed to becoming an essential connection to deepen all-round exchanges and cooperation with ASEAN countries and the world and to boost the innovative development of the regional digital economy.

积极服务中国及东盟国家开展交流培训活动,助力中国—东盟网络安全技术交流及人 才培养

Actively serving China and ASEAN countries to carry out exchanges and training activities and assisting China–ASEAN network security technology exchanges and talent cultivation

中国—东盟网络安全交流培训中心面向东盟各国及全球开 展以网络安全培训为特色的系列数字化人才培训服务。先 后举办或承办"中国 – 东盟网络安全产业交流与合作发展 培训会"(东盟 8 个国家 22 名政府代表和 200 名专家参 会并进行了深入交流)、"中国—东盟数字经济安全研讨 会"(来自中国以及柬埔寨、老挝、马来西亚、印度尼西亚、 泰国等东盟国家数字经济主管部门、企业和智库的官员、 管理者和专家学者近 150 人通过线上和线下参会的方式, 围绕数字经济相关重要议题进行研讨)、"中国—东盟数 字安全论坛"(东盟国家代表、数字安全知名专家学者、 网络安全企业精英齐聚一堂,共话网络安全和数据安全, 共谋数字发展未来)、发展中国家网络安全与信息对抗培 训(发展中国家及地区相关领域司处级官员参加培训)、 "一带一路"国家工业信息化技术应用及管理研修班、中

国一东盟网络安全协同创新论坛等超百场系列交流培训活动,累计服务人数超6万人次,助力中国和东盟国家间及 全球在数字安全领域开展更广泛更深入合作交流。 The China-ASEAN cyber security exchange and training center provides a series of digital talent training services featuring cyber security training for ASEAN countries and the world. It has successively organized or hosted the "China-ASEAN cybersecurity Industry Exchange and Cooperation Training Conference" (22 government representatives and 200 experts from 8 ASEAN countries participated in the conference and carried out indepth exchanges), the "China-ASEAN Digital Economy Security Seminar "(Nearly 150 officials, managers, experts and scholars from the digital economy authorities, enterprises and think tanks of China, Cambodia, Laos, Malaysia, Indonesia, Thailand and other ASEAN countries participated in the seminar through online and offline participation, and conducted discussions on important topics related to the digital economy), "China-ASEAN Digital Security Forum" (Representatives of ASEAN countries, renowned experts and scholars in digital security, and elites of cybersecurity enterprises gathered together to talk about cybersecurity and data security, and seek the future of digital development), and cybersecurity and Information Countermeasures Training for Developing Countries (officials of the departments and divisions of developing countries and regions in relevant fields participated in the training), "the Belt and Road" countries industrial informatization technology application and management seminar, China-ASEAN cybersecurity Collaborative Innovation Forum and other series of exchange and training activities, the cumulative number of people served more than 60,000, helping China and ASEAN countries and the world to carry out broader and deeper cooperation in the field of digital security exchange.



The 2nd China-ASEAN Seminar on Digital Economy Security