



世界互联网大会  
World Internet  
Conference



# 2022

## 携手构建网络空间 命运共同体 实践案例集

Collection of Practice Cases of  
Jointly Building a Community with  
a Shared Future in Cyberspace



世界互联网大会  
World Internet  
Conference

# 序言

互联网是当今时代最具发展活力和创新动力的领域,为推动经济社会发展和人类文明进步开辟了广阔空间。2015年,中国国家主席习近平在第二届世界互联网大会上提出互联网发展治理“四项原则”和“五点主张”,积极倡导构建网络空间命运共同体,得到国际社会的普遍认同和广泛支持。近年来,国际社会主动顺应信息时代潮流,不懈探索推动互联网更好造福人类的有效路径,涌现出众多影响广泛、特色鲜明、富有成效的实践成果,为建设和平、安全、开放、合作、有序的网络空间作出了重要贡献。

为深入推进国际网络空间成果展示、经验分享和务实合作,世界互联网大会自2021年起每年组织开展“携手构建网络空间命运共同体”实践案例征集活动,得到了各方积极反馈和踊跃申报。今年5月以来,世界互联网大会充分发挥国际组织高端平台作用,向国际社会广泛征集实践案例,来自国际组织、互联网企业、技术社群、科研机构等各方主体共申报实践案例200多项,案例内容涵盖网络基础设施建设、网上文化交流、数字经济创新发展、网络安全保障、网络空间国际治理等五大领域,覆盖全球六大洲共100多个国家和地区。在弗朗西斯·高锐先生和任贤良先生两位副主席的带领下,由20余位知名专家组成评审委员会,综合考虑国际引领力、实践成效、代表性与可推广性等要素,遴选出60项典型案例,形成了2022年“携手构建网络空间命运共同体”实践案例集。

本次案例征集活动紧扣全球数字化、网络化、智能化发展的时代脉搏,聚焦互联网发展治理重大课题,充分体现了参与主体的多样性、价值创造的普惠性、技术创新性、交流合作的广泛性。这些根植于世界各地的新实践新成果,生动讲述了各方推动互联网领域创新发展和有效治理的精彩故事,集中反映了国际社会推动网络空间深化合作、互利共赢的真诚期待,深刻彰显了构建网络空间命运共同体的生机活力和美好愿景。

“一花独放不是春,百花齐放春满园”。互联网是人类共同的文明成果、共有的精神家园,网络空间未来应由世界各国共同开创。希望各方携起手来,充分运用世界互联网大会国际组织平台,广泛凝聚理念共识,不断激发创新活力,持续深化务实合作,用智慧之光照亮前行之路,努力推动网络空间向着发展共同体、安全共同体、责任共同体和利益共同体不断迈进,让互联网更好造福世界各国人民。

庄荣文

世界互联网大会理事长

2022年11月

## Preface

The Internet is the most dynamic and innovative field of our time, which has opened up a vast space for promoting economic and social development and the progress of human civilization. Chinese President Xi Jinping advocated the vision of building a community with a shared future in cyberspace at the second World Internet Conference (WIC) in 2015. At the conference, President Xi Jinping elaborated on the four principles and made a five-point proposal concerning Internet development and governance, which was generally recognized and widely supported by the international community. In recent years, the international community has taken the initiative to respond to the trend of the information age, made relentless efforts to explore effective ways of advancing the Internet for the benefit of mankind, and produced a series of practical outcomes with broad implications, distinctive features and fruitful results, which have contributed significantly to building a peaceful, secure, open, cooperative and orderly cyberspace.

In order to further promote the exhibition of achievements, experience sharing and pragmatic cooperation in cyberspace at the international level, the WIC has organized the collection of practice cases of "Building a Community with a Shared Future in Cyberspace" every year since 2021, which has received positive feedbacks and active applications from all parties. Since May this year, the WIC, taking advantage of its role as an international organization and a high-end platform, launched an open call to collect practice cases from the international community. International organizations, Internet companies, tech communities, scientific research institutes, and other stakeholders have submitted more than 200 practice cases in five major areas: development of Internet infrastructure, online cultural exchange, innovative development of digital economy, ensuring cybersecurity and international governance of cyberspace, covering more than 100 countries and regions on six continents. A Review Committee composed of more than 20 well-known experts, with Francis Gurry and Ren Xianliang as vice-chairmen, has selected 60 success stories for inclusion in the 2022 "Collection of Practice Cases of Jointly Building a Community with a Shared Future in Cyberspace", considering such factors as international leadership, implementation effectiveness, representativeness and replicability.

Going along with the trend of digital, networked, and intelligent development, the collection of practice cases focus on the major subjects of Internet development and governance, and fully reflects the diversity of participants, the inclusiveness of value creation, the innovations of technological development, and the extensiveness of exchanges and cooperation. These new practices and achievements rooted in all parts of the world vividly tell success stories about the efforts different parties have made to promote innovation, development, and effective governance in the Internet field, reflect the sincere expectation of the international community to deepen cooperation and pursue mutual benefit and win-win results in cyberspace, and highlight the vitality and the vision of building a community with a shared future in cyberspace.

"A single flower does not make spring, while hundreds of flowers in full bloom bring spring to the garden." The Internet is a common achievement of human civilization and a shared spiritual home of mankind, and the future of cyberspace should be jointly created by all countries in the world. It is hoped that all parties will join hands, make full use of the platform of the WIC as an international organization, to pool consensus on ideas, stimulate innovation vitality, deepen pragmatic cooperation, illuminate the way forward with the light of wisdom, and strive to push cyberspace forward towards a community of shared development, shared security, shared responsibilities and shared interests, so that the Internet can better benefit people all over the world.

庄荣文

Zhuang Rongwen

Chair of World Internet Conference

November 2022

01  
ONE

## 基础设施

加快全球网络基础设施建设, 促进互联互通

Global Internet Infrastructure

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

- 003 中国澳门-欧盟科研数据跨境流动实践 Macao SAR - European Union (EU) Cross-border Flow of Scientific Research Data  
澳门数字化发展协会 Macao Digitalization Development Association
- 007 全球5G大会 The Global 5G Event  
中国信息通信研究院 China Academy of Information and Communications Technology
- 011 爱立信E-Band技术助5G跋山涉水 Connection without Boundaries for the 5G Era Enabled by Ericsson's E-Band Technology  
爱立信(中国)通信有限公司 Ericsson (China)
- 015 MetaAAU, 开启5G建网新篇章 MetaAAU, Opening a New Chapter for 5G  
华为技术有限公司 Huawei
- 019 PEACE国际海缆系统 PEACE Cable System  
江苏亨通光电股份有限公司 Hengtong Optic-Electric Co., Ltd.
- 023 翼鸥全球公益实践 EEO Global Public Welfare Practice  
北京翼鸥教育科技有限公司 EEO Education Technology Co., Ltd.
- 027 域名和电子邮件的普遍适用推动全球社群有意义的接入  
The Universal Acceptance of Domain Names and Email Addresses to Promote Meaningful Access for the Global Community  
普遍适用性指导组 Universal Acceptance Steering Group (UASG)
- 031 面向全球数字多媒体基础建设的纯图像真人交互式混合现实技术  
Interactive Mixed Reality Based on Image for Constructing Global Digital Multimedia Infrastructure  
腾讯 Tencent
- 035 共建“数字丝绸之路”, 助力“一带一路”沿线国家数字经济发展  
Initiative to Jointly Build the Digital Silk Road, and Promote the Development of Digital Economy in Countries along the Belt and Road  
中国电信集团有限公司 China Telecom
- 039 中国移动国际有限公司“路站岛”数字基础设施建设项目  
China Mobile International "Highways, Stations, Islands" Digital Infrastructure Project  
中国移动国际有限公司 China Mobile International Limited

- 043 国际高能物理分布式计算平台 Cross-Continent Distributed Computing Platform for High Energy Physics  
中国科学院高能物理研究所 Institute of High Energy Physics Chinese Academy of Sciences
- 047 阿里云全球数据中心建设 Alibaba Cloud' s Global Data Centers  
阿里云计算有限公司 Alibaba Cloud

**02** 文化交流  
打造网上文化交流共享平台, 促进交流互鉴  
**TWO** Online Cultural Exchanges and Mutual Learning  
Building an Online Platform for Cultural Exchanges and Mutual Learning

- 053 数字敦煌 Digital Dunhuang  
敦煌研究院 Dunhuang Academy
- 057 国际中文日 International Chinese Language Day  
中外语言交流合作中心、中文联盟 Center for Language Education and Cooperation, ChinesePlus
- 061 亚洲数字艺术展 Asia Digital Art Exhibition  
北京唐影众线文化传播有限责任公司 Beijing Tangying Culture Communication Co.,Ltd.
- 065 故宫博物院携手谷歌文化学院打造数字“故宫百宝”  
“Treasures of the Palace Museum”: Collaborative Project between the Palace Museum and Google Arts & Culture  
故宫博物院、谷歌艺术与文化 The Palace Museum, Google Arts & Culture
- 069 我在中国当大使 Talk with Ambassadors  
人民日报海外网 People's Daily Haiwainet
- 073 ANSO疫情预测信息平台 ANSO Pandemic Forecast Information Platform  
“一带一路”国际科学组织联盟 The Alliance of International Science Organizations, ANSO
- 077 百度百科博物馆计划 BaiduBaiké Museum Project  
百度 Baidu
- 081 女性赋能--卡巴斯基科技界女性项目 Empower Women – Kaspersky' s Project in the Field of Women in Tech  
卡巴斯基 Kaspersky

- 085 培养“丝路五通”人才,推动教育在构建人类命运共同体中发挥更大作用**  
Training Personnel Targeted at “Five-Pronged Approach”, Empowering Education for the Community of a Shared Future  
联合国教科文组织国际工程科技知识中心  
United Nations Educational, Scientific and Cultural Organization (UNESCO)  
International Knowledge Centre for Engineering Sciences and Technology
- 089 缅中胞波网络空间共同体 Myanmar-China Paukphaw Community with a Shared Future in Cyberspace**  
缅甸胞波网有限公司 Network Paukphaw Co., Ltd., Myanmar
- 093 中国—东盟戏剧网络平台 China-ASEAN Theater Online Platform**  
南宁市民族文化艺术研究院 Nanning Folk Culture and Art Research Institute
- 097 全球华人生活短视频大赛 “Daily Life of Global Chinese” Short Video Competition**  
海外网传媒有限公司 Haiwainet Media Co., Ltd.
- 101 中国国际动漫节助力“云上国漫走出去” The CICAFF-Empowered Go-Global Strategy**  
杭州市文化创意产业发展中心(杭州市动漫游戏产业发展中心)  
Hangzhou Cultural & Creative Industry Development Center (Hangzhou ACG Industry Development Center)
- 105 建好“华剧场”讲好中国故事 Build a "Hua Theater" to Tell Chinese Stories**  
浙江华策影视股份有限公司 Huace Group
- 109 中国旅游课程 China Travel Course**  
中华人民共和国文化和旅游部国际交流与合作局  
Bureau of International Exchange and Cooperation, Ministry of Culture and Tourism of the People's Republic of China
- 113 餐桌上的“地标”故事 “GI” Stories on Dining-Table**  
《当代世界》杂志社 Contemporary World Magazine
- 117 携手,为人民 Join Hands, for the People**  
中国共产党中央委员会对外联络部新闻办公室  
Information Office of the International Department Central Committee of CPC
- 121 福到全球千万家 FU AROUND THE WORLD**  
中国国际文化交流中心 China International Culture Exchange Center (CICEC)
- 125 全球生物图片搜索引擎 A Global Biological Image Search Engine**  
中国科学院西双版纳热带植物园 Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences
- 129 友好人士话中国,脸书群里共学习 Gather Global Friends in the Facebook Group**  
中国经济联络中心 China Economic Cooperation Center (CECC)

03  
THREE

## 数字经济

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

- 135 建设“能联全球”数字化平台赋能全球能源互联网发展实施  
Build the “World of Energy Interconnection” Digitalized Platform, Facilitating the Development and Implementation of GEI  
全球能源互联网发展合作组织 Global Energy Interconnection Development and Cooperation Organization
- 139 SAP可持续数字创新方案引领全球绿色发展 SAP Sustainable Digital Innovation Solutions Lead Global Green Development  
思爱普(中国)有限公司 SAP(China) Co., Ltd.
- 143 构建互联互通的国际物流大通道, 助力丝路电商新发展  
Constructing the Grand Passage for International Logistics Facilitating Interconnectivity and the Development of  
E-commerce along the Silk Road  
菜鸟网络科技有限公司 Cainiao Network Technology Co., Ltd.
- 147 2018-2021车联网跨产业互联互通系列应用示范活动  
2018-2021 Series of Cross-industry Cellular-Vehicle to everything Interoperability Application Demonstration Activities  
中国信息通信研究院 China Academy of Information and Communications Technology
- 151 学习管理系统在中国和欧洲的变化 The Development of LMS within China and Europe  
FRENTIX GmbH
- 155 “丝路电商”云上大讲堂 "Silk Road E-commerce" Online Lectures  
中华人民共和国商务部 Ministry of Commerce of the People's Republic of China
- 159 国际数据空间创新实验室 International Data Space Innovation Lab  
深圳数据交易所有限公司、华为云、数鑫科技  
Shenzhen Data Exchange, Huawei Cloud, Shenzhen Shuxin Technology Co., Ltd.
- 163 水滴筹:用科技推动爱心高效流动, 保障百万家庭  
Waterdrop Fundraising: Utilizing technology to facilitate efficient transmission of kindness and to protect millions of families  
北京健康之家科技有限公司 Waterdrop.Inc



**167 基于医疗大数据的精准新冠早筛及预警监测系统**

A Precise Early Screening and Population Surveillance System of COVID-19 based on Medical Big Data

腾讯医疗健康(深圳)有限公司 Tencent Medical Healthcare (Shenzhen) Company Limited

**171 微软数字化员工体验平台 Microsoft Viva Digital Employee Experience Platform**

微软公司 Microsoft

**175 建设长三角全球科创路演中心, 打造线上线下载创要素聚合中枢**

Creating a Promotional Hub for Global Sci-tech Corporations in the Yangtze River Delta Region—The YDR Global Sci-Tech Innovation

浙江清华长三角研究院 Yangtze Delta Region Institute of Tsinghua University, Zhejiang

**179 中国-东盟信息港股份有限公司面向东盟国家的即时通讯系统**

A Case of China-ASEAN Information Harbor Co., Ltd. (Abbreviated as CAIH)' s Instant Message System for ASEAN Countries

老挝国家互联网中心、中国—东盟信息港股份有限公司、国有控股的平台型信息科技公司、老挝ALO科技有限公司、老挝数字经济龙头企业

Laos National Internet Centre, China-ASEAN Information Harbor Co., Ltd., Laos ALO Technology Co., Ltd.,

Top enterprises in Laos' digital economy area

**183 环球撮合荟——全球企业智慧生态社区 ICBC Business Matchmaker**

中国工商银行股份有限公司 Industrial and Commercial Bank of China

**187 基于区块链的智能再保险交易平台 The Intelligent Reinsurance Transaction Platform Based on Blockchain**

中国人民财产保险股份有限公司 PICC Property and Casualty Company Limited

**191 全球数字人才发展研究 Global Digital Talent Development Research**

北京领英信息技术有限公司、清华大学经济管理学院互联网发展与治理研究中心

LinkedIn Information Technology Co., Ltd., Tsinghua SEM Center for Internet Development and Governance, CIDG

# 04 FOUR

## 网络安全 保障网络安全, 促进有序发展 Cybersecurity Maintenance Maintaining Cybersecurity to Promote Orderly Development

- 197 CNCERT网安事件处置合作 Collaborative Handling of Cyber Security Incidents by CNCERT  
中国国家计算机网络应急技术处理协调中心  
National Computer Network Emergency Response Technical Team/Coordination Center of China (CNCERT/CC)
- 201 5G基础设施和数据内生安全的国际化实践  
International Practices of Endogenous Security for 5G Infrastructure and Data  
中兴通讯股份有限公司 ZTE Corporation
- 205 防范国际来话诈骗解决方案及应用 Solution and Application of Preventing International Call Fraud  
中国信息通信研究院 China Academy of Information and Communications Technology
- 209 基于零信任的绿盟全球安全访问服务边缘 Zero Trust-based NSFOCUS Global Secure Access Service Edge (SASE)  
绿盟科技集团股份有限公司 NSFOCUS Technologies Group Co.
- 213 360安全国际化 助力全球数字安全有序发展 360 Total Security Helps the Global Digital Security to Develop Orderly  
三六零安全科技股份有限公司 360 Security Technology Inc.
- 217 “一带一路”卫星遥感系统网络安全解决方案 Cybersecurity Solution for Satellite Remote Sensing System of "Belt and Road"  
天融信科技集团股份有限公司 Topsec Technology Group Co., Ltd.
- 221 微软XDR+SIEM打造全球一体的数字威胁防御体系  
Building a Global Digital Threat Protection and Security Operations Center by Using Microsoft XDR+SIEM Platform  
微软 Microsoft
- 225 《网络主权:理论与实践》成果文件 The Research Report Sovereignty in Cyberspace: Theory and Practice  
武汉大学 Wuhan University
- 229 中国电信互联网路由劫持动态防护体系构筑互联网安全防护墙  
China Telecom Internet Rounting Hijacking Dynamic Protection System to Build the Ijernet Security Protection and Wall  
中国电信集团有限公司 China Telecom

05  
FIVE

## 治理体系

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

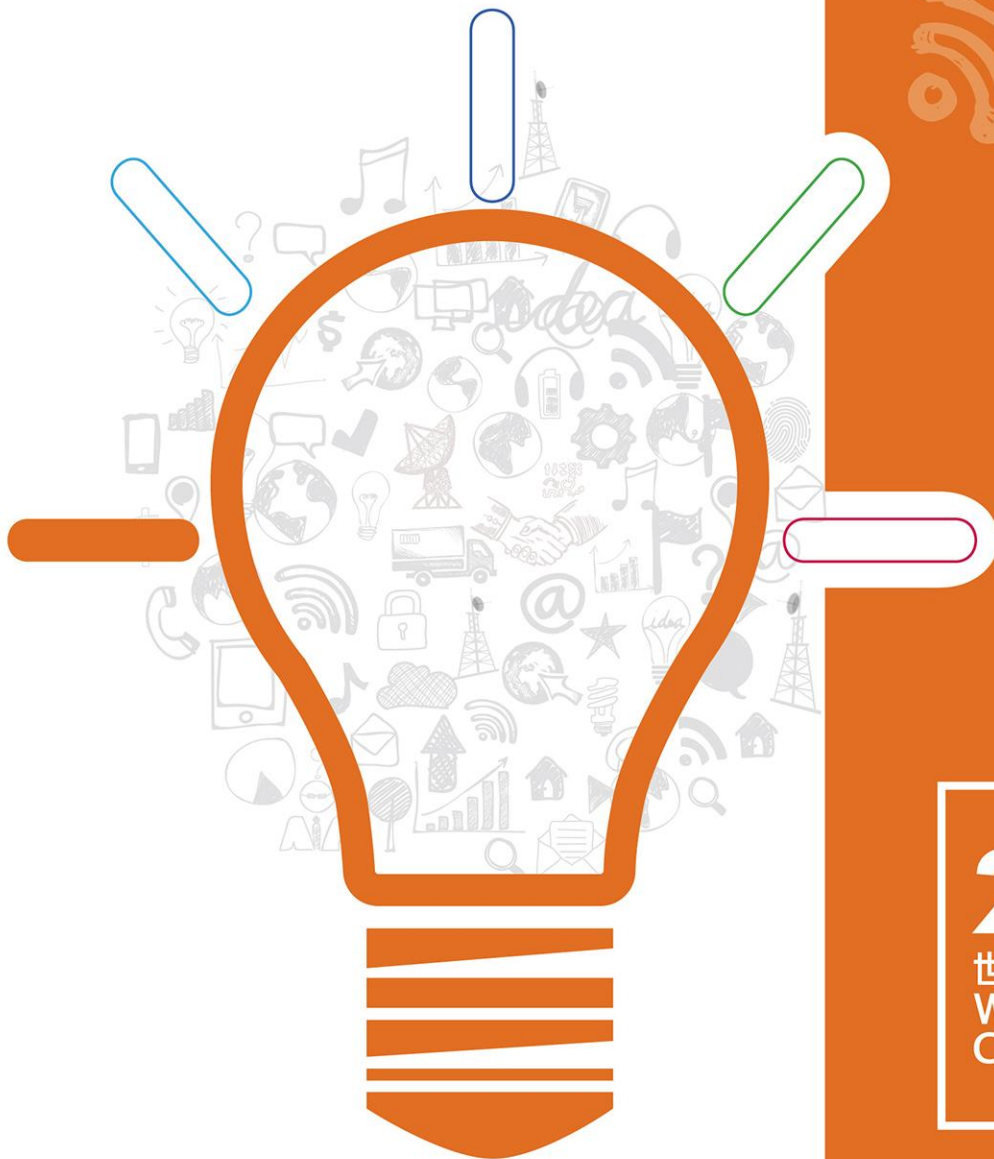
- 235 北斗系统服务全球, 造福人类—携手共建时空网络命运共同体  
BeiDou Navigation Satellite System Serves the World and Benefits Mankind, by Joining Hands and Building a Community with a Shared Future in Temporal and Spatial Networks  
中国卫星导航系统管理办公室 China Satellite Navigation Office
- 239 推进IPv6规模部署向纯IPv6发展联合倡议  
Joint Initiative to Promote the Large-scale Development of IPv6 to the Development of IPv6-only  
下一代互联网工程中心 China Future Internet Engineering Center (CFIEC)
- 243 杭州互联网法院跨境数字贸易司法解纷与治理平台  
Cross-border Digital Trade Judicial Dispute Resolution and Governance Platform of Hangzhou Internet Court  
杭州互联网法院 Hangzhou Internet Court
- 247 中国国际大数据产业博览会 China International Big Data Industry Expo  
中国国际大数据产业博览会执委会 The Executive Committee of China International Big Data Industry Expo

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity



# 2022

世界互联网大会  
World Internet  
Conference

基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

# 基础设施

*Global Internet Infrastructure*

---

**加快全球网络基础设施建设, 促进互联互通**  
*Accelerating the Building of Global Internet Infrastructure for Greater Connectivity*



## 中国澳门-欧盟科研数据跨境流动实践

### Macao SAR - European Union (EU) Cross-border Flow of Scientific Research Data

---

**申报机构:** 澳门数字化发展协会

**Applying Institution:** Macao Digitalization Development Association

**参与机构:** 澳门科技大学下一代互联网国际研究院、下一代互联网关键技术和评测北京市工程研究中心有限公司、全球IPv6论坛、中国电信澳门公司、北京尚隐科技有限公司、北京理工大学、珠海澳科大科技研究院

**Participating Parties:** International Institute of Next Generation Internet of Macau University of Science and Technology (M.U.S.T.-IINGI), China Future Internet Engineering Center (CFIEC), IPv6 Forum, China Telecom Macau Company, Beijing Privacy Pioneer Technology Co.,Ltd., Beijing Institute of Technology, Zhuhai-M.U.S.T. Science and Technology Research Institute.

**案例涉及的国家 and 地区:** 中国、中国澳门以及欧盟各成员国

**Countries and Regions Covered or Involved in the Implementation:**  
China, Macau China and EU countries

为探索新形势下的数据跨境安全有序流动机制, 澳门数字化发展协会 (MDDA) 依托澳门特区“一国两制”的制度优势以及与欧盟的法律渊源, 在现行法律框架下, 率先在科研领域构建“中国澳门-欧盟数据跨境流动通道”, 并在澳门科技大学下一代互联网国际研究院与弗劳恩霍夫软件与系统技术研究所之间形成科研数据跨境流动安全管理实践。

In order to explore the mechanism for the safe and orderly flow of data across borders in the new era, the Macau Digital Development Association (MDDA), relying on the institutional advantages of the Macau SAR's "one country, two systems" and its legal origins with the European Union, takes the lead in building a new platform in the field of scientific research under the current legal framework. "Macau China, China-EU Data Cross-border Flow Channel", and formed a safe management practice for cross-border flow of scientific research data between International Institute of Next Generation Internet of Macau University of Science and Technology and the Fraunhofer Institute for Software and System Technology.

## 多边共建科研领域中国澳门-欧盟数据跨境流动通道

国际上既有的数据跨境流动机制正在经历各方面的压力, 例如“隐私盾”协议被推翻, 标准合同需要配套额外的“补充措施”等。在数据要素愈发重要的形势下, 各国或地区普遍不满足于仅依赖于“事后追究”的安全管理思路。案例中的澳门科技大学下一代互联网国际研究院与弗劳恩霍夫软件与系统技术研究所作为位于不同司法辖区的, 在双方科研合作活动中经常会产生涉及个人信息的科研数据跨境流动需求, 如数字医疗(中医药)研究涉及诊断过程和医用设备收集或产生的个人信息等。双方在多中心联合科研活动中, 除了传统的研究伦理方面的要求外, 更要符合各自法律法规对个人信息出境的要求。

### Multilateral coordination to build the first scientific research field "Macau China-EU data cross-border flow channel"

The safe and orderly flow and governance of data has become a global issue, and the cross-border flow of data is one of the most complex sub-issue. At the outset, the existing international data cross-border flow mechanism is experiencing pressure from various aspects such as "EU-US Privacy Shield Frameworks" agreement overturned and Standard Contractual Clauses require additional "supplementary measures", etc. Given the fact that data has become more and more important for the development of both economy and

society at large, the "investigation after the fact" approach cannot meet the satisfaction of some countries or regions for security and management concerns.

In this case, M.U.S.T.-IINGI and the Fraunhofer ISST are respectively located in different jurisdictions. As a consequence, the cross-border flow of scientific research data involving personal information often arises in the scientific research cooperation activities between the two parties. This includes digital health (Traditional Chinese Medicine) research, among other things, diagnostic processes and personal information collected or generated by medical devices. In the multi-center joint scientific research activities, except for the traditional research ethics requirements, the two parties must also meet the requirements of their respective laws and regulations on the export of personal information.

为探索新形势下的数据跨境安全有序流动机制, 澳门数字化发展协会 (MDDA) 依托澳门特区“一国两制”的制度优势以及与欧盟的法律渊源, 联合欧盟国际数据空间协会 (IDSA), 在澳门《个人资料保护法》与欧盟《通用数据保护条例》(GDPR) 现行法律框架下, 率先在科研领域构建了集“法律规则+管理机制+技术保障”三位一体的、全程覆盖“事前、事中、事后”的、既能保障安全又能促进数据共享的“中国澳门-欧盟数据跨境流动通道”, 并在澳门科技大学下一代互联网国际研究院与弗劳恩霍夫软件与系统技术研究所之间形成科研数据跨境流动安全管理实践。

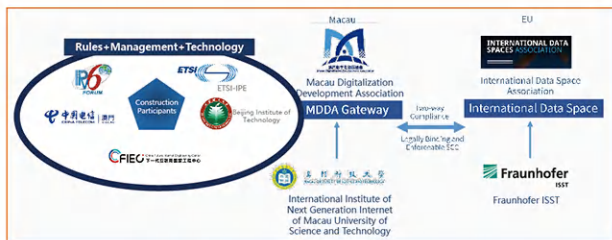
## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

In accordance with the GDPR(EU) and Personal Data Protection Act (Macau), MDDA takes the lead to form the first new cross-border flow of scientific research data between M.U.S.T.-IINGI and the Fraunhofer ISST safety management practices on the platform of International Data Space (IDS). In order to explore the mechanism for the safe and orderly flow of data across borders in the digital era, MDDA coordinates and collaborates to establish a trinity of “legal regulations + management mechanism + technical assurance” model in the field of scientific research, covering the whole process of “before, during and after course”.



中国澳门-欧盟科研数据跨境流动实践

*The Platform of Macau China-EU Cross-border  
Flow of Scientific Research Data*

## MDDA Gateway系统实现出入境数据自动化自检和数据审查

为解决在数据跨境传输方面遇到的相关阻碍, 澳门科技大学下一代互联网国际研究院与弗劳恩霍夫软件与系统技术研究所在国际数据空间协会和澳门数字化发展协会框架下互签“标准合同条款”(“SCC”)作为数据双向跨境传输的合规保障基础。此外, 各自还设立了满足当地法律要求的数据保护管理制度, 并制定配套工作指引规则。

**MDDA Gateway system realizes automatic self-inspection and data review of entry and exit data**

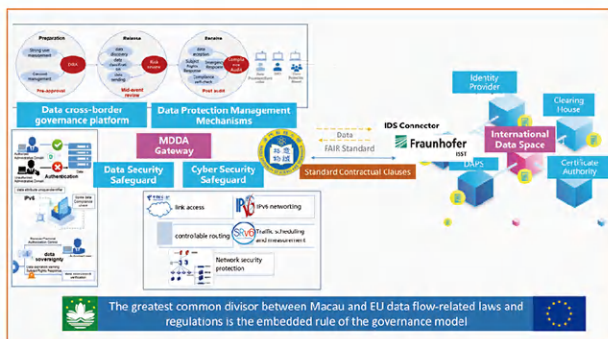
In order to combat the related obstacles encountered in the cross-border transmission of data, M.U.S.T.-IINGI and Fraunhofer ISST signed the “Standard Contractual Clauses”(SCC) as basic compliance guarantee for two-way cross-border transmission data under the

framework of IDS and MDDA. In addition, both parties establish a data protection management system that meets local legal requirements, and formulates supporting work guidelines.

与此同时, 澳门数字化发展协会联合下一代互联网工程中心、北京理工大学、尚隐科技等机构联合探索出一套包括法律规则、技术基础设施和管理机制在内的, 既能保障安全、又能促进共享的数据跨境流通治理模式, 并基于此构建了一整套MDDA Gateway技术系统。将澳门和欧盟的数据跨境流动相关法律法规之间的最大公约数作为内嵌规则, 包括《澳门个人资料保护法》和欧盟《通用数据保护条例》(GDPR)等, 以同时符合澳门和欧盟数据保护标准, 实现出入境数据的自动化自检和数据审查, 保障科研数据的快速双向有序流动。劳恩霍夫协会科研数据的出境则依托国际数据空间协会的技术平台来保障欧盟境内的合法合规。

In the meantime, MDDA coordinates with CFIEC, Beijing Institute of Technology and other organizations exploring a set of governance models for cross-border data circulation, including rules that specify legal regulations, technical infrastructure and management mechanisms, which can not only ensure security, but also promote sharing. Based on this, a whole set of MDDA Gateway technology system is built. The model uses the greatest common divisor between the laws and regulations related to cross-border data flow in Macau China and the EU as an embedded rule, including the Macau Personal Data Protection Act and the EU GDPR, etc., in order to comply with both Macau and the EU Data protection standards, to realize automatic self-inspection and data review of entry and exit data, and ensure the rapid two-way and orderly flow of scientific research data.





MDDA Gateway系统实现出入境数据自动化自检和数据审查  
The Embedded Rules of the Management System

## 采用IPv6、隐私增强、区块链等技术实现数据流动全程监管

澳门数字化发展协会MDDA Gateway技术平台在全球IPv6论坛、ETSI-IPE、下一代互联网工程中心以及中国电信澳门公司的支持下,采用IPv6、隐私增强、区块链等先进技术,具备最小必要原则审核、用户权限管理、数据主体同意管理与权利响应、隐私增强、用户合规自检等全流程合规保障措施,实现了保障数据自主权的、基于FAIR原则(可查找、可访问、可互操作、可重用)的数据跨境传输与访问。

The case adopts IPv6, privacy enhancement, blockchain and other technologies to realize the whole-process supervision of data flow

With noble support of IPv6 Forum, CFIEC and China Telecom Macau company, the system adopts advanced technologies such as IPv6, privacy enhancement, blockchain, etc., which have full-process compliance guarantee measures such as minimum necessary principle review, user rights management, data subject consent management and rights response, privacy enhancement, and user compliance self-inspection. These safety precautions realize cross-border data transmission and access, which is based on FAIR principles (findable, accessible, interoperable, reusable) that guarantees data autonomy.

MDDA Gateway系统还将IPv6地址与位置标识、身份内容标识等进行绑定,通过网络底层IPv6协议实现对上层数字内容的管控,提升管理部门的管理效率和控制能力,对于跨境数据安全有序流动监管提供可追溯可管控的技术手段支撑。

MDDA Gateway system also binds IPv6 addresses with location identifiers, identity content identifiers, and realizes the management and control of upper-layer digital content through the IPv6 protocol at the bottom of the network, improving the management efficiency and control capabilities of the management department, and supervising the safe and orderly flow of cross-border data, which provides traceable and controllable technical support.

中国澳门-欧盟跨境科研数据流动实践不仅为科研数据在中国澳门和欧盟间的双向传输探索出一条切实可行的路径,还可扩展至中国澳门与其他更多国家和地区的数据跨境双向对等合规流动,同时还将适用于金融、贸易、会展、医疗等更多行业的全球化经营。

The practice of cross-border scientific research data flow between Macau China and the EU not only explores a feasible path for the two-way transmission of scientific research data between Macau China and the EU, but also extends to the cross-border two-way data exchange between Macau China and other countries and regions. It will also be applicable to the global operation of more industries such as medical care, Internet of Vehicles, finance, international trade, and exhibitions.

澳门数字化发展协会的一整套数据跨境流通治理模型,不仅助力澳门特区融入全球数字经济发展浪潮,还搭建了包括数据保护监管机构在内的多利益相关方交流桥梁,凝聚各方对安全有序的数据跨境流动的共识,对于全球跨境数据合作具有示范效应。

The Macau Digital Development Association's set of governance models for cross-border data circulation not only helps Macau SAR to integrate into the global digital economic development wave, but also builds a bridge for multi-stakeholder exchanges, including data protection regulators, to unite all parties to a safe and orderly manner. The consensus on the cross-border flow of data has a demonstrative effect on global cross-border data cooperation.



## 全球5G大会

### The Global 5G Event

**申报机构:** 中国信息通信研究院

**Applying Institution:** China Academy of Information and Communications Technology

**参与机构:** 中国IMT-2020(5G)推进组、欧盟5G PPP、美国5G Americas、韩国5G论坛、日本5G MF、巴西5G Brasil、印度TSDSI

### Participating Parties:

IMT-2020 (5G) Promotion Group,5GPPP,5G Americas, 5G Forum, 5GMF,5G Brasil,TSDSI

**案例涉及的国家 and 地区:** 中国、美国、韩国等6个国家和地区以及欧盟各成员国

### Countries and Regions Covered or Involved in the Implementation:

6 countries and regions such as China, United States, South Korea and EU countries

## “全球5G大会”携手共建5G生态圈。

The Global 5G Event joins hands with the world to build the 5G ecosystem.

为达成5G全球共识和共建5G生态圈, 中国、美国、韩国、日本、巴西、印度以及欧盟的7个5G推进组织共同签署合作备忘录, 以平等、合作、开放、共享的理念构建全球合作平台, 在5G政策、技术、产业等方面开展合作, 并约定从2016年起轮流组织召开“全球5G大会”, 迄今已成功举办八届。中国IMT-2020 (5G) 推进组举办了首届和第八届大会。

In order to reach a global consensus on 5G and jointly build a 5G ecosystem, the world's 7 leading 5G organizations of China, the European Union, the United States, South Korea, Japan, Brazil, and India signed a MoU of building a global cooperation platform with the concept of equality, cooperation, openness and sharing to carry out cooperation in 5G policy, technology, industry, etc., and it is agreed to organize the Global 5G Event in turn from 2016, which has been successfully held for eight sessions. China IMT-2020 (5G) Promotion Group held the first and eighth events.

### 推进全球5G标准统一, 助力全球频谱一致

形成统一的5G国际技术标准, 构建全球统一的5G频谱及产业生态, 是全球产业界的共同目标。为此, “全球5G大会”持续推动全球标准化合作, 加速5G标准的全球统一化进程; 深入讨论各国频谱政策与应用, 促进全球产业发展的协调一致。在5G最初发展阶段, 中国、欧洲、日本等国家和地区在“全球5G大会”上积极探索各国5G频谱方案, 通过激烈的讨论和思想碰撞, 惊喜地发现在3.5GHz等中频段有很大的可能性, 树立了5G频谱“优先发展中频段”的信心, 推动全球5G优先在中低频段部署。

Promote the unification of the global 5G standard and facilitate the harmonization of the global spectrum

It is the common goal of the global industry to develop a unified 5G international technical standard and build a global unified 5G spectrum and industrial ecology. To this end, the Global 5G Event continues to promote global standardization cooperation and accelerate

the global unification of the 5G standard. Besides, the Event discusses spectrum policies and utilizations of different countries in depth and contributes to the harmonization of global industrial ecological development. In the initial stage of 5G development, China, Europe, Japan, and other countries and regions actively discussed the 5G spectrum plans at the Global 5G Event. During the event, it was surprising to find out the great possibility in the mid-range frequency band such as 3.5GHz which established the confidence of "prioritizing the development of the mid-range frequency band" of the 5G spectrum and facilitated the deployment of 5G in the middle and low-frequency bands globally.



全球5G大会MOU签约仪式  
Global 5G Event MoU Signing Ceremony

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设,促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity



参加第六届全球5G大会“5G政策圆桌论坛”与各国嘉宾留影

*The “5G Policy” panel discussion of the 6th Global 5G Event and took pictures with the guests of other countries.*

## 加速全球5G商用进程,推进5G垂直行业应用发展

“全球5G大会”加强区域组织间联合研究,在5G发展的各个阶段,交流各国5G的推进策略、网络建设与融合应用等最新进展,共享各国5G试验和商用计划,总结发展的经验与教训,加快全球5G商用部署。为推进5G融入千行百业、服务大众,“全球5G大会”研究5G典型应用场景和技术解决方案,分享各国在5G融合应用方面的案例,促进了各国在5G垂直行业应用中的多边参与,共同深化5G与工业、电力、车联网等先导行业领域的应用发展。会议期间,组织会议代表实地参观了韩国冬奥会展馆、日本运营企业5G创新应用等。

Accelerate the global 5G commercial process and promote the development of 5G vertical industry applications

The Global 5G Event strengthens joint research among regional organizations, exchange the latest progress in 5G promotion strategies, network construction, innovative applications, and 5G trials and commercial plans in various countries. It also summarizes the development experience and lessons and accelerates the global 5G commercialization. In order to promote the integration of 5G into thousands of industries and households, the Global 5G Event studies typical 5G application scenarios and technical solutions. It shares the use cases of different countries in the application of 5G, promotes the multilateral participation in the 5G application of vertical industries and drives the progress of 5G applications in factories, electric power, internet of vehicles, and other leading industries. During the events, representatives were invited to visit the Winter Olympic stadium in Korea and 5G innovative applications in Japan.



第三届全球5G大会在日本实地参观5G应用

*Delegates of the 3rd Global 5G Event visited the 5G application exhibition in Japan*

## 研究5G-A演进技术,推动移动通信技术创新迭代

5G实现了从移动互联到万物互联的拓展,5G-A将进一步深化和扩展物联网应用,服务于智能化的经济社会。“全球5G大会”积极开展5G-A关键技术研究 and 研讨,共同探讨

新应用场景、新技术趋势, 推进移动通信技术升级演进和创新迭代。会议期间, 举办方大胆呈现了3D全息远程采访等应用场景, 举办了科技成果展示, 为参会代表提供了一场未来科技的盛宴。产业界将以5G-A为新的起点迎接万物智联时代的到来。



第七届全球5G大会现场全息投影视频通话演示  
(左侧嘉宾实为全息3D投影影像, 与右侧现场主持人实时对话)

*A holographic projection video call demonstration during the 7th Global 5G Event. (The guest on the left was actually holographic 3D projection who was communicating with the host on the right in real time.)*



### Study the 5G-Advanced technology and promote the innovation and iteration of mobile communication technology

5G has realized the expansion from mobile internet to the internet of everything. 5G-A will further deepen and expand the applications of the Internet of things to serve the Intelligent economic society. The Global 5G Event actively conducts studies on 5G-A key technologies and jointly discusses the new application scenarios and new technology trends to push forward the innovation and evolution of mobile communication technologies. During the event, the organizer presented 3D holographic remote video call and other application scenarios and held a scientific and technological achievements exhibition which provided a grand feast of future science and technology for the participants. The industry will take 5G-A as a new starting point to welcome the arrival of the era of intelligent connection of all things.



## 爱立信E-Band技术助5G跋山涉水

Connection without Boundaries for the 5G Era Enabled by Ericsson's E-Band Technology

申报机构: 爱立信(中国)通信有限公司

Applying Institution: Ericsson (China) Communications Cor. Ltd

案例涉及的国家 and 地区: 中国、坦桑尼亚、墨西哥、肯尼亚、哥斯达黎加、马达加斯

Countries and Regions Covered or Involved in the Implementation:

China, Tanzania, Mexico, Kenya, Costa Rica, Madagascar

## 爱立信E-Band技术, 为5G提供无所不在的传输连接, 实现偏远落后地区的5G覆盖。

Ericsson E-Band technology, which provides ubiquitous transport connections for 5G, achieves 5G coverage in remote and backward areas.

5G作为新一代信息通信基础设施, 已经在全球广泛部署。然而由于环境条件差异, 5G在一些地区(比如大山/雨林等光纤难以部署区域)还难以覆盖, 极大的影响了5G网络的普遍部署。作为业界领先的微波解决方案提供商, 爱立信在引领微波技术创新的同时, 也一直致力于为非发达地区提供微波网络, 为网络空间的建设添砖加瓦。

5G has been rapidly and widely deployed in the world since its inception, becoming the infrastructure of the network, and providing a solid foundation for further innovation. However, due to differences in basic environmental conditions, 5G is still difficult to cover in mountains, rain forests, and other areas where optical fiber is difficult to deploy, which greatly affects the general deployment of 5G networks.

As an industry-leading microwave solution provider, Ericsson has not only led the new microwave technology innovation but also has been committed to providing microwave networks for non-developed regions, contributing to the construction of cyberspace.

## 携手中国云南移动实现跨澜沧江微波传输

在中国, 爱立信一直致力于为客户提供创新的高质量网络解决方案。为铺平5G广泛部署的道路, 爱立信携手云南移动西双版纳分公司成功完成基于E-Band技术的5G承载方案现网商用, 并承载现网业务稳定运行。在地处西双版纳地区的现网环境中, 双方在跨澜沧江的两个站点之间成功利用E-Band微波技术为PTN环网提供了高可用传输链路。西双版纳地处横断山脉的南延部分, 位于热带北部边缘, 在一些恶劣的地理环境, 难以架设光纤, 同时由于该地属热带季风气候, 雨季降雨量大, 复杂的地理和气象环境对E-Band微波部署带来很大的难度和挑战。采用爱立信E-Band微波MBB(Multi-Band Booster)解决方案有效解决了E-Band微波在雨林地区信号衰减的问题。网络建设整体于2020年6月完成, 传输链路表现稳定、可靠, 整个链路的设计可用性为99.999%, 很好的满足了西双版纳移动5G

微波传输的需求, 为恶劣地理和气象环境下的5G传输网建设提供了新的思路 and 选择。

## Achieve microwave across River in Yunnan Mobile

Ericsson has been committed to providing customers with innovative high-quality network solutions. In China, Ericsson and Yunnan Mobile Xishuangbanna branch successfully completed the commercial use case of the 5G transport based on E-band technology and carried the existing network business. In the existing network environment in Xishuangbanna, we have successfully used E-band microwave technology to provide a highly available transmission link for the PTN network across Lancang River. Xishuangbanna is in the southern extension of Hengduan Mountains and the northern edge of the tropics. There are some harsh geographical environments in this area which make it difficult to build optical fibers. At the same time, due to the tropical monsoon climate and heavy rainfall in the rainy season, the complex geographical and meteorological environment brings great difficulties and challenges for E-band microwave. To solve the problem of E-Band microwave signal attenuation in rainforest areas, Ericsson MBB (multi-band booster) was deployed. The transmission link has been

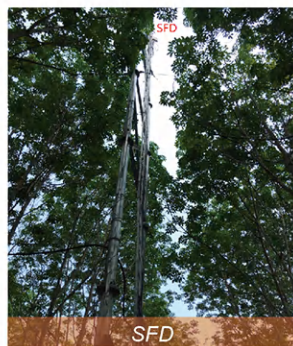
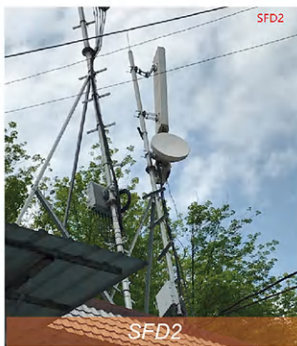
## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

proved to be stable and reliable. The design availability of the microwave link is 99.999% which highly meets the demand for 5G microwave transmission of Xishuangbanna mobile and provides a new idea and choice for a 5G transmission network in harsh geographical and meteorological environments.



爱立信在中国云南山区部署的5G微波传输系统

Ericsson's 5G microwave transport system deployed in Yunnan

## 助力非洲5G微波传输网的建设

在非洲大量经济落后的地区, 爱立信为支持网络空间的 建设, 利用微波为当地的无线网络提供强大的低成本传输解决方案。在坦桑尼亚, 爱立信为本地运营商Tigo提供大量微波设备, 为坦桑尼亚1300万落后的农村地区提供网络覆盖, 采用微波具备成本低、建设周期短等优势(相比光纤), 特别是对于ARPU低的农村地区, 微波可以将运营商投资降低到一个合理的水平。在肯尼亚, 爱立信为Safaricom提供微波、WiFi、IP网络产品, 满足肯尼亚人口密集地区的网络升级改造, 以应对日益膨胀的带宽需求。在非洲岛国马达加斯加, 爱立信为运营商Telma提供2000+无线站点的网络设备, 实现其全国范围的网络覆盖。

### Construct a 5G microwave transmission network in Africa

In Africa, Ericsson uses microwave to provide a powerful low-cost transport solution for backhaul in order to support the construction of cyberspace. In Tanzania, Ericsson provides a large number of microwave equipment for local operator Tigo and provides network coverage for 13 million rural population in Tanzania. In Kenya, Ericsson provides Safaricom with microwave/Wi-Fi/IP network products to meet the network upgrading in densely populated areas to meet the expanding bandwidth demand. In Madagascar, an African island country, Ericsson provides TELMA with network equipment for 2000+ wireless stations to achieve its nationwide network coverage.



爱立信为肯尼亚提供微波、WiFi、IP网络产品

Ericsson offers Microwave/Wi-Fi/IP network products for Kenya

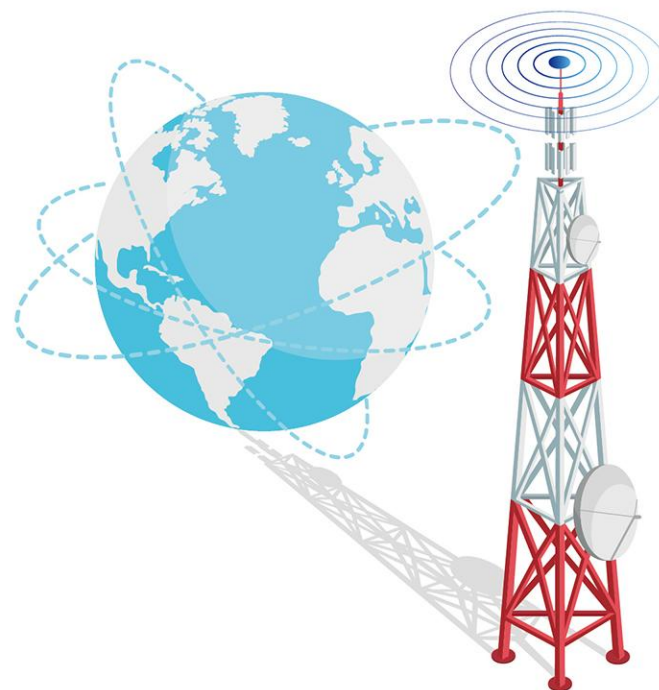


## 打造拉丁美洲优质的网络服务

在拉丁美洲地区, 爱立信为支持网络空间的建设, 利用微波为当地的无线网络提供先进的传输解决方案。在墨西哥, 爱立信为运营商Tampnet提供高带宽、高可靠性的先进微波网络, 满足4G/LTE无线网络的覆盖需求。在哥斯达黎加, 爱立信作为Claro的端到端唯一网络提供商, 利用微波为Claro建设了一张高质量的无线网络, 为用户提供优质的网络服务。

### Build quality Internet service in Latin America

In Latin America, Ericsson uses microwave to provide a powerful transport solution for backhaul to support the construction of cyberspace. In Mexico, Ericsson provides operator Tampnet with an advanced microwave network with high bandwidth and high reliability to meet the coverage requirements of a 4G/LTE wireless network. In Costa Rica, Ericsson, as the only end-to-end network provider of Claro, has built a high-quality wireless network for Claro using microwave to provide quality network services.



爱立信为墨西哥提供先进微波网络

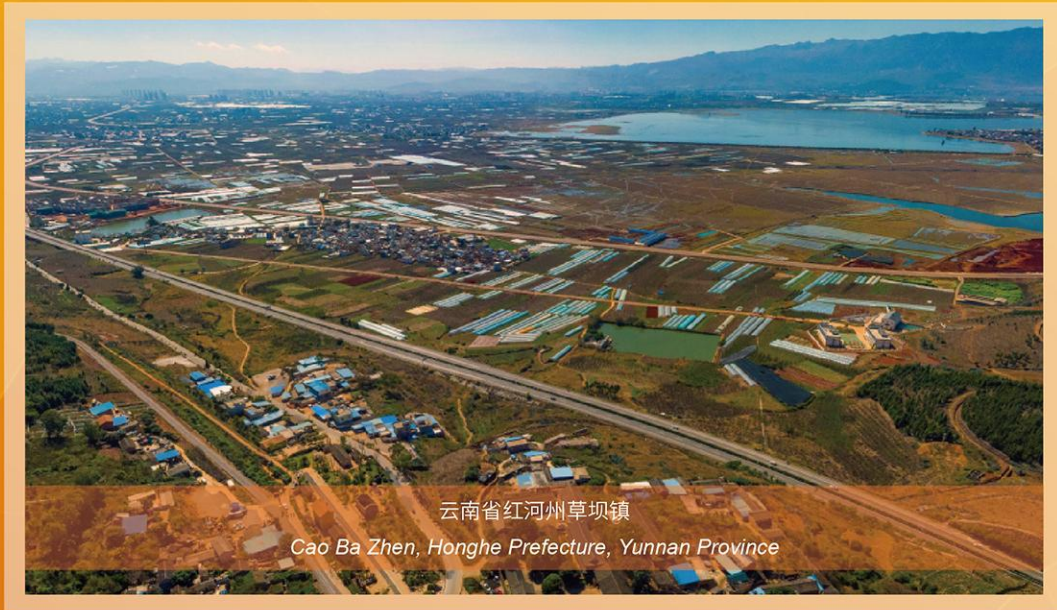
*Ericsson provides advanced microwave networks for Mexico*

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity



## MetaAAU, 开启5G建网新篇章

MetaAAU, Opening a New Chapter for 5G

申报机构: 华为技术有限公司

Applying Institution: Huawei Technologies Co., Ltd.

案例涉及的国家 and 地区: 中国、菲律宾、沙特阿拉伯

Countries and Regions Covered or Involved in the Implementation:

China, Philippines, Saudi Arabia

5G已在全球实现大规模部署和应用,而进一步的网络建设初现瓶颈。如何能让5G深入乡村?如何提升5G室内覆盖和用户体验?如何达成性能、节能双优的5G网络?华为最新一代5G基站MetaAAU给出了答案。

5G deployment is in full swing with large-scale deployment and application in many countries and cities around the world. However, looking towards the future, how can we get 5G into the countryside? How to improve 5G indoor coverage and user experience? How to achieve a 5G network with optimal performance and energy conservation? Huawei's latest 5G base station MetaAAU provide the answers.

## 乡村振兴,网络先行

在中国云南省红河州草坝镇,乡村振兴是近几年的发展主题。越来越多的村民们积极参与各种现代化农业活动,但由于此处一直没有5G网络覆盖,村民们在日常生活生产过程中,感受到网络不畅带来的不便。

### Bridging the Digital Divide

In Caoba Town, Honghe Prefecture, Yunnan Province, China, rural revitalization is a development theme in recent years. Large number of villagers are actively participating in various modern agriculture activities. However, because there is no 5G network coverage there, the villagers feel the inconvenience caused by poor networks in their daily production.

MetaAAU的超远覆盖能力,可以通过更少的基站覆盖更大的范围,降低部署成本,这让运营商更愿意把5G部署到乡村。2022年初,MetaAAU在草坝镇实现了连片的部署,把5G信号带到了村民们的手机里,带到了乡农直播卖货的直播间里,也把共同富裕、热情生活的信心带到了他们心里。乡农真正享受到现代农业发展带来的实惠。

MetaAAU's ultra-distance coverage capability enables operators to deploy 5G networks in rural areas with fewer base stations, reducing deployment costs. At the beginning of 2022, MetaAAU implemented continuous deployment in Caoba Town, bringing 5G signals to villagers' mobile phones, to their live-streaming studios, and bringing

the confidence of a passionate life to their hearts so they can really enjoy the benefits brought by modern agricultural development.

全球仍有数十亿计的人口不能享受高速网络带来的便利,MetaAAU的出现,将进一步在全球范围内推动网络普及,弥补数字鸿沟。

In the world, billions of people still cannot enjoy the benefits of high-speed networks. The emergence of innovative products such as MetaAAU will further help promote the popularization of networks worldwide and bridge the digital divide.

## 移动互联,点睛之笔

移动网络在室内的覆盖,一直是很多手机用户的痛点。5G通过多天线等技术,弥补了其使用更高频段带来的传播损耗问题,但在室内深层区域和5G小区边缘,仍存在一定的覆盖漏洞。

### Enhancing Experiences and Boosting Mobile Economy

Mobile network coverage in indoor areas has always been a pain point for many mobile phone users. 5G uses technologies such as multiple antennas to compensate for the propagation loss caused by higher frequency bands. However, there are some coverage holes in deep indoor areas and at the edge of 5G cells.

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设,促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity



MetaAAU部署在杭州市余杭区

MetaAAU deployed in Yuhang District, Hangzhou

在中国杭州市余杭区,运营商为了解决室内5G信号差的问题,进行了MetaAAU的部署。与部署前相比,5G覆盖范围扩大了40%左右,室内的上网体验也大幅提升30%以上。“这个家伙的出现,改变了之前飘忽不定的5G信号,满足了我对5G随时随地高速上网的期待”,见证了设备升级并亲身体验的居民说到。

In Yuhang District, Hangzhou, China, operators deployed MetaAAU to solve the problem of poor indoor 5G signal quality, improving 5G network performance. Compared with that before deployment, 5G coverage is expanded by about 40%, and the indoor Internet access experience is greatly improved. "The appearance of this big guy changed the previously erratic 5G signal and met my expectation for 5G high-speed Internet access anytime and anywhere", said the resident who witnessed the device upgrade and experienced it firsthand.

移动互联网是数字时代经济发展的基石,而上网体验成为众多先进应用孵化和爆发的根本。MetaAAU通过提升消费者上网体验,更好的兑现5G代际体验,并进一步促进移动互联网发展,提升移动行业对全球经济增长的贡献。

Mobile Internet is the cornerstone of economic development in the digital era, and the Internet access experience is the basis for the incubation and explosion of many advanced applications. MetaAAU will further promote the development of the mobile Internet and enhance the contribution of the mobile industry to global economic growth by improving consumers' online experience and better 5G intergenerational experience.

## 绿色5G,助力“双碳”

绿色低碳发展是当前全球经济社会发展的主旋律,5G作为重要的公共基础设施,是节能降耗的关键环节之一。

Green 5G, Low Carbon and Energy Saving

“Green and low-carbon development” is the main theme of global economic and social development. As an important public infrastructure, 5G is one of the key links to energy conservation and consumption reduction.



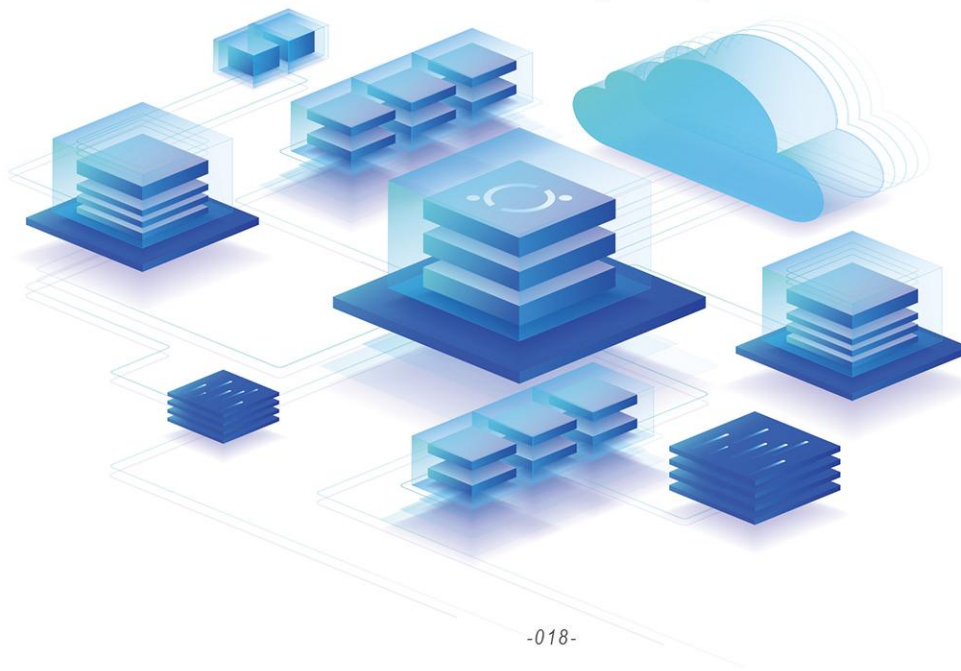
MetaAAU部署在菲律宾(示意图)

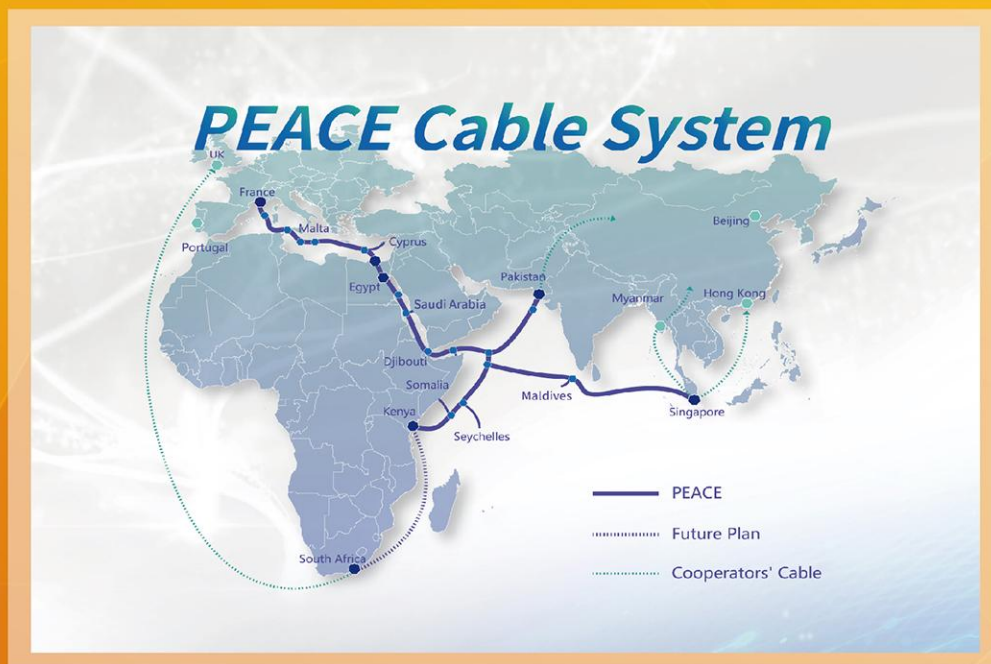
MetaAAU deployed in the Philippines

在菲律宾马尼拉,5G基站的平均间距高达700~800米,远远大于中国的300~500米和韩国的200米左右,这对单个

基站的覆盖能力提出了更高的要求。随着5G用户的发展,对覆盖产生更高需求,菲律宾运营商需要通过提升基站发射功率的方式(240W到320W),提升覆盖。提升功率需要对供电系统进行改造,而菲律宾的基站供电系统改造从申请、审批到施工完成,需要长达9个月的周期,经过如此繁琐的改造后,运营商还要为更高的电费而发愁。2022年,菲律宾运营商开始引入MetaAAU,并在大站间距场景部署,只需要用MetaAAU替换传统基站,将改造周期从9个月缩短至2周左右;此外MetaAAU还可以极大降低了基站能耗,测试证明每年可为单个基站节省4000度电。而除了设备节能之外,5G在智慧工厂、智慧电网等领域的数字化应用,可以让MetaAAU从另外一个维度为各行业提质增效、节能降耗、低碳环保和高效低碳作出贡献。

In Manila, the Philippines, the average distance between 5G base stations is as high as 700m to 800m, far greater than the distance of 300-500m in China and 200m in South Korea. This poses higher requirements on the coverage capability of a single base station. With the development of 5G users, operators in the Philippines need to increase the transmitted power of base stations (from 240W to 320W) to expand coverage. To improve power, the power supply system needs to be reconstructed. In the Philippines, it takes as long as nine months for application, approval, and construction. After such a cumbersome process, the operators also have to worry about higher electricity bills. In 2022, operators in the Philippines began to introduce MetaAAUs and deploy them in large inter-site distance scenarios. They only needed to replace traditional base stations with MetaAAUs, shortening the reconstruction period from nine months to about two weeks and greatly reducing the power consumption of base stations. The results showed that the MetaAAU can save 4000kw·h of electricity for a single base station every year. If we look at millions of 5G base stations around the world, this is a figure that cannot be underestimated. In addition to energy conservation, the digital application of 5G in smart factories and smart grids enables MetaAAU to contribute to energy efficiency, energy conservation, low-carbon environmental protection, and high-efficiency and low-carbon industries from another dimension.





## PEACE国际海缆系统

### PEACE Cable System

**申报机构:** 江苏亨通光电股份有限公司、国际海洋网络系统有限公司、华海通信技术有限公司

**Applying Institution:** Hengtong Optic-Electric Co., Ltd., PEACE Cable International Network Co., Ltd., HMN Technologies Co., Ltd.

**案例涉及的国家 and 地区:** 中国、中国香港、巴基斯坦、肯尼亚等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, Hong Kong China, Pakistan, Kenya

## PEACE国际海缆系统, 构建亚非欧国际通信新路由

PEACE Cable System creates a new route for international communications linking Asia, Africa, and Europe

海洋通信网络承载全球95%以上的国际间跨洋信息通信传输, 是全球最重要的国际通信网络基础设施。海洋通信的产业发展和资源布局, 推动国家在国际互联通信能力、通信事业以及整体经济水平等方面的提升。PEACE国际海缆系统, 构建亚非欧新路由, 加快全球网络基础设施建设, 助力网络空间命运共同体目标的实现。

As the most important international communication network infrastructure in the world, the marine communication network carries more than 95% of the world's international transoceanic information data transmission. The industrial development and resource layout of marine communications promote a country's international interconnection capacity building, communication business development, and the overall economic level, etc. PEACE Cable System creates a new route connecting Asia, Africa, and Europe, accelerates the construction of global network infrastructure, and helps to achieve the goal of a community of shared future in cyberspace.

### PEACE国际海缆系统介绍

PEACE国际海缆系统(以下简称“PEACE”), 始于2018年, 是由中国民营企业——江苏亨通光电股份有限公司(以下简称“亨通”)投资、建设、运营的国际海底光缆通信系统, 总投资超40亿人民币。PEACE线路连接法国、巴基斯坦、埃及、肯尼亚等国家, 并向新加坡等东南亚国家以及南非延伸, 总里程超25,000公里, 将登陆20余个国家, 沿途覆盖超30个国家。2022年11月, PEACE主干部分将正式完工并商用, 能够在今后两年承担亚非欧线路上主要的国际带宽需求。

#### Introduction of PEACE Cable System

PEACE Cable System (hereinafter referred to as "PEACE"), which started in 2018, is an international submarine cable communication system invested, constructed, and operated by a private enterprise—Hengtong Optic-Electric Co., Ltd. (hereinafter referred to as "Hengtong"), with a total investment of over RMB 4 billion. The PEACE route connects France, Pakistan, Egypt, Kenya, and other

countries, with extensions to Singapore and other Southeast Asian countries, as well as South Africa, which has a total planned length of over 25,000 km. It will ultimately land in more than 20 countries with the network passing over 30 countries in total. By November 2022, the trunk of PEACE will be officially completed and commercially available and will be able to meet the major international bandwidth demands on the Asia-Africa-Europe route within the coming two years.



海上施工

Offshore construction

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

### 创新投建营模式, 实现国际通信新路由

PEACE项目创新性地采用项目公司模式, 以产品+工程+服务的全产业链模式, 打破了传统的海缆项目联盟运作方式。在这种全新商业模式下, 亨通实现了产业链的垂直整合, 深入高端产品与服务应用领域, 为全球海光缆工程建设提供助力, 加速互联互通。PEACE借助中巴陆地穿境光缆资源, 可实现与中巴经济走廊的信息互联互通。同时, PEACE向西接入欧洲主要数据节点——马赛后, 具备了打通中国西部到欧洲, 形成国际通信新路由的条件, 能够为中国和沿线国家提供良好的国际通信服务。

**Innovative investment, construction, and operation mode to achieve a new route for international communications**

The PEACE creatively adopts the project company model and breaks the traditional operation mode of submarine cable project alliance with the whole production chain model of product + construction + service. Under this new business model, Hengtong has achieved the vertical integration of the industry chain, and penetrated into the application field of high-end products and services, thus accelerating global interconnection. Relying on terrestrial fiber resources of the China-Pakistan Crossing, PEACE can realize information connectivity with the China-Pakistan Economic Corridor. Meanwhile, after PEACE's westward access to Marseille, a major data hub in Europe, it is equipped with the conditions to connect western China to Europe, forming a new international communication route, and can provide better international communication services for China and countries alongside the route.



海缆生产

Submarine Cable manufacturing

海缆装载

Submarine Cable loading

### 应用开放网络技术, 提升信息安全等级, 降低洲际通信时延

亨通依托自身海缆全产业链研发、制造、集成和运营的能力与优势, 创新性应用开放网络 (Open Cable) 技术, 为整个区域内各运营商、OTT企业等提供中立、灵活、无差别的大容量国际通信服务, 带来更多的流量选择、互联服务与合作机会, 助力各国之间的合作发展, 实现互惠互利。同时, PEACE将与现有海缆系统形成互补, 大幅提升区域信息安全等级, 保证信息通信质量。此外, PEACE凭借较短的物理路由和较少的中转、中继节点, 在降低运营成本的同时, 为亚、非、欧之间提供更低时延的国际带宽。

**Apply open cable technology, improve information security level, and reduce intercontinental communication delay**

Relying on its capabilities and advantages in Research & Development, manufacturing, integration, and operation of the entire submarine cable industry chain, Hengtong innovatively applies Open Cable technology to provide neutral, flexible, and non-differentiated high-capacity international communication services for operators and OTT enterprises throughout the region, bringing more traffic choices, interconnection services, and cooperation opportunities, facilitating the cooperation and development among countries to realize mutual benefits. In addition, PEACE will complement the existing submarine cable system to significantly improve the regional information security level and ensure the quality of information and communication. Furthermore, with shorter physical routes and fewer transit and relay nodes, PEACE will provide lower latency bandwidth between Asia, Africa, and Europe while reducing operating costs.



海上施工

Offshore construction



## 提升海缆登陆国家的国际通信能力, 助力沿线国家ICT事业和经济发展

通过与沿途各国家登陆合作伙伴的密切合作, PEACE 进一步实现了对亚洲、非洲以及欧洲内陆地区的广泛延伸与覆盖, 涉及国家和地区的人口将超过20亿。PEACE将构建跨洲际线路上的国际信息大容量通道, 优化国际通信网络结构, 助力沿线国家充分利用网络和信息通信技术, 提升当地通信与经济发展水平, 共享数字化发展机遇, 构建网络空间命运共同体。

Enhance the international communication capability of the landing countries, boost ICT business and economic development of countries along the route

Through close cooperation with landing partners along the route, PEACE will further extend and cover a wide range of inland areas in Asia, Africa, and Europe, involving a population of more than 2 billion people. PEACE will build a large-capacity international information channel on this transcontinental route, optimize the structure of international communication networks, help countries along the route to make full use of networks and ICT, enhance local communication and economic development, share opportunities for digital development, and build a community with a shared future in cyberspace.



PEACE在法国马赛登陆

PEACE landed in Marseille, France



PEACE在肯尼亚蒙巴萨登陆  
PEACE landed in Mombasa, Kenya

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设,促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity



## 翼鸥全球公益实践

### EEO Global Public Welfare Practice

申报机构: 北京翼鸥教育科技有限公司

**Applying Institution:** EEO Education Technology Co., Ltd.

案例涉及的国家/地区: 菲律宾、埃及、乌干达、毛里塔尼亚

**Countries and Regions Covered or Involved in the Implementation:**

Philippines, Egypt, Uganda, Mauritania

**人类是一个命运共同体, 全球教育也内在相关, 迎接共同的挑战。中国教育科技平台ClassIn赋能世界, 引领教育网络基建及全球教育技术转型, 重构全球化开放教育服务体系, 推进后疫情时代未来学校的发展变革, 贡献中国教育力量。**

Mankind is a community of common destiny. Global education is related to daily challenges. As China's education technology platform, ClassIn leads the education network infrastructure and global education technology transformation reforms the global education service system, promotes the future school development transformation in the post-epidemic era, and contributes to China's education.

新冠肺炎疫情对世界各国的教育体系产生了全面冲击。此项目旨在依托公司产品ClassIn为全球各国教育机构提供免费OMO教育服务, 支持教师提供远程和混合式教学, 为保障每一位学生特殊时期的受教育权贡献科技力量, 承担起企业的全球化公益责任。

The COVID-19 pandemic has a comprehensive impact on the education systems around the world. This project aims to provide free OMO education services for educational institutions across the world through ClassIn, support teachers to provide distance and blended teaching, contribute scientific and technological strength to ensure the right of education for every student in these special times, and fulfill the enterprise's global and public responsibilities.

## 强大、开发、包容的专业教育一体化平台

疫情以来, 中国开展的史无前例的大规模在线教育实践, 为全球教育的延续、发展积累了宝贵的经验。在中国, 几乎所有学校、老师和学生都参与了纯线上教育或混合式实践。从课堂教与学, 到预习、复习等多种自主学习场景, 再到测验以及决定成绩的重要考试和测评, 教育的每一个环节都已有了解决方案。

### To build a powerful, developed, and inclusive professional integration platform for education

The unprecedented large-scale online education practices carried out in China since the pandemic has gained valuable experience for continuing and developing global education. Almost all schools, teachers, and students in China have a semester of online education only or blended practices. Every aspect of education already has an

online solution, from classroom teaching and learning to multiple independent learning scenarios such as class preps, reviews, quizzes, exams and assessments.



ClassIn教学平台功能图谱

Function diagram of ClassIn teaching platform

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

## 共建疫情教学服务屏障, 不让一个孩子掉队

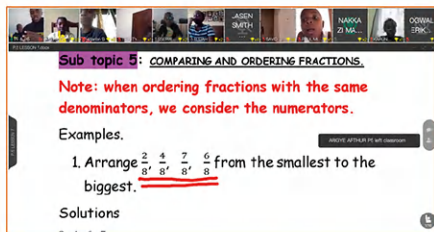
“翼鸥全球公益实践”项目一直致力于赋能贫困地区的学校教师。通过线上课堂, ClassIn把受到疫情影响被迫居家的学生重新连接在一起, 构筑高质量的教学体系, 实现了特殊时期教学效果最大化。

Build a safety net of education services through collective efforts, and let no child be left behind.

EEO Global Public Welfare Practice is dedicated to empowering teachers in poverty-stricken areas. Through online classes, ClassIn reconnects students who have been forced to stay at home due to the pandemic and builds a high-quality teaching system to maximize teaching effectiveness during special periods.

2021年7月, 翼鸥教育联合乌干达St Mary's College Lugazi, Our lady of Africa Schools, Trinity Schools等7所学校推进公益实践, 累积服务400名教师为1万名学生开具线上课程。

In July 2021, ClassIn collaborated with seven schools in Uganda, including St Mary's College Lugazi, Our lady of Africa Schools, and Trinity Schools to promote pro bono practices, serving 400 teachers and 10,000 students with online courses.



乌干达学校使用ClassIn进行线上教学  
Ugandan schools were using ClassIn for online teaching

2020年6月-12月, 翼鸥教育联合菲律宾机构等推进公益实践, 累积服务如Faith Baptist Academy等共计学校一百多所学校近一万名教师为十二万名学生开具一万七千八百节线上课程。

From June to December 2020, EEO collaborated with Filipino institutions to promote public welfare practices, serving Faith Baptist Academy and other schools with a total of more than 100 schools and nearly 10,000 teachers, offering 17,800 online lessons to 120,000 students.



菲律宾的教师正在使用ClassIn进行教学活动  
Educators in the Philippines were conducting teaching activities on ClassIn

2021年6月, 翼鸥教育正式与毛里塔尼亚、阿拉伯地区教科文组织进行签约。以“共击疫情 护航教学”为主题, 旨在通过团结合作的方式, 利用最新教育科技帮助毛里塔尼亚等更多国家弥合数字鸿沟, 确保教育正常运转, 促进未来教育创新持续进行。

In June 2021, the signing ceremony of the Memorandum of Understanding (MoU) between EEO Education Ltd., The Arab League Education, Cultural, and Scientific Organization (ALECSO), and the Islamic Republic of Mauritania, specifically the Nouakchott Region, was held successfully online. With the theme of “Solidarity against Covid-19 for Sustainable Education”, the ceremony signaled another concrete step towards ensuring learning continuity in emergencies, bridging the digital gap, and promoting education innovation in the Arab region.



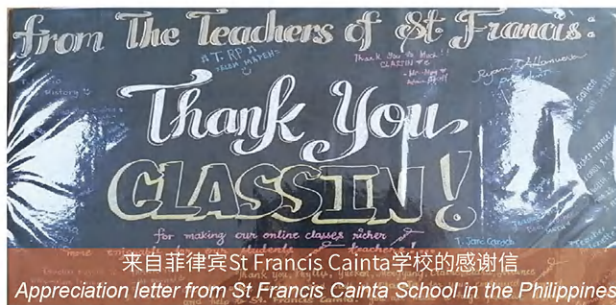
翼鸥教育与毛里塔尼亚、阿拉伯教科文组织的签约仪式  
The Signing Ceremony

## 以中国的教育科技, 赋能世界

对于疫情期间有困难的学校来说, ClassIn教学平台是一个很好的教学工具, 尤其是对于受限于身体和现实情况不能参加的学生。使用ClassIn的学校只要有互联网, 可以在任何地方实现师生之间的交流。老师可以随时陪伴学生, 满足他们的需求。学校通过使用先进的教学技术, 更好的帮助学生丰富知识、提升能力。

### Empower the world with China's education technologies

ClassIn is an effective tool for schools that experienced challenges during the pandemic. Especially for students who had limited access to classrooms due to emergencies or disabilities, communication with teachers was made possible from anywhere as long as the school has an internet connection. Teachers could keep students company and cater to their needs anytime. With advanced education technologies, schools better enriched learners' understanding and developed greater abilities.



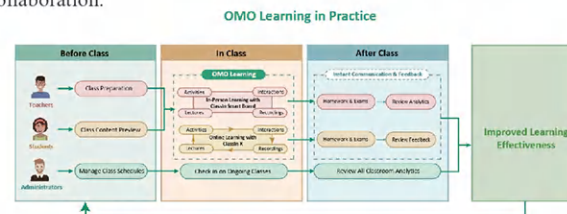
## 后疫情时代的全球混合教学

在后疫情时代, ClassIn自主研发了线上线下相结合的混合教学模式, 搭建出OMO教室体系。在ClassIn混合教室中, 全球各国的学校能够实现跨地域的联通, 实现真正的无限教室。对于发展中国家来说, 这完善了当地教育相关的网络基础设施建设, 提供了更优质的网络教学体验, 并为传统的教学形式做了补充。推动普及全球化的网络基础设施建

设是一项艰巨且重要的事业, 对促进跨国境、跨地域的信息通信合作有着至关重要的作用。

### Blended/OMO learning on a global scale in the post-pandemic era

In the post-pandemic era, ClassIn took the initiative to develop the Online-Merge-Offline (OMO) learning model and an OMO classroom setting accordingly. In ClassIn's OMO classroom, infinite learning is truly realized as schools from different countries and regions have become interconnected. For developing countries, in particular, this setup complemented education-related internet infrastructure, improved the online learning experience, and supplemented traditional teaching approaches. Facilitating the construction of basic internet infrastructure globally is a challenging but worthwhile endeavor, which is essential for cross-national and cross-regional communication and collaboration.



ClassIn研发的全球混合教学流程图  
ClassIn Hybrid Learning in Practice

在人类命运共同体的理念共同认识下, 在科技发展和疫情对全球教育巨大的影响下, 后疫情时代的全球教育以平等为核心, 做好线上线下教育的有效融合, 持续赋能教师能力成长, 确保互联教育服务覆盖全部学生, 培养面向未来的学习者。翼鸥将坚持提升技术、优化产品、创新服务, 为发展公平而有质量的全球化教育而努力!

We have an awareness that human beings share a community of common destinies. With technological development and tremendous influence of the pandemic, global education in the post-pandemic era is centered on equality. It is important to integrate online and offline education to continuously empower teachers' growth, ensure that all students have access to internet education, and equip learners with future skills. EEO will continue to improve technology, optimize products, and innovate services to develop a globalized and equitable quality education!

.com

.eu

.org

.ةكبش

.संगठन

.ไทย  
.காடு

## 域名和电子邮件的普遍适用推动全球社群有意义的接入

The Universal Acceptance of Domain Names and Email Addresses to Promote Meaningful Access for the Global Community

申报机构: 普遍适用性指导组

**Applying Institution:** Universal Acceptance Steering Group (UASG)

案例涉及的国家/地区: 中国、印度、日本、韩国等11个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

11 countries and regions such as China, India, Japan, South Korea

## 域名和电子邮件的普遍适用, 推动有意义的接入。

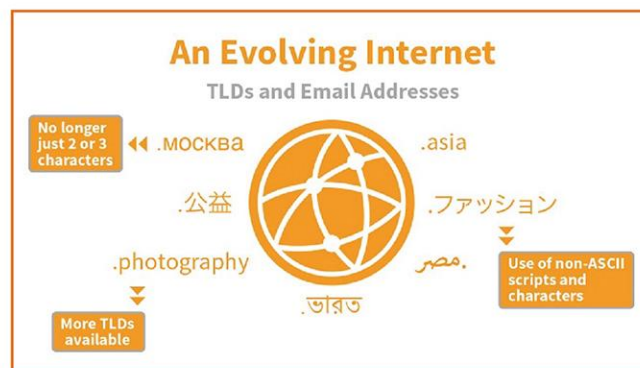
The Universal Acceptance of Domain Names and Email Addresses to Promote Meaningful Access.

互联网域名如example.com, 为互联网用户提供了一个机会去创造他们选择的唯一的在线标识。互联网名称与数字地址分配机构 (ICANN) 支持国际组织的工作, 通过扩展互联网域名系统 (DNS) 来增加这些标识以及代表性的机会。

Domain names, like example.com, provide Internet users with the opportunity to create a unique online identity of their choice. The Internet Corporation for Assigned Names and Numbers (ICANN) has supported the work of the ICANN community to increase the options for such identities and representation through the expansion of the Internet's Domain Name System (DNS).

### 域名系统被扩展, 当地语言也可成为通用顶级域名

域名系统的扩展使得互联网更加多语种化, 对世界社群更加包容, 因为域名现在可以以多种语言或文字获得, 例如: 以西里尔字符表示的俄语域名 универсальное-принятие-тест.москва。它们被称为国际化域名 (IDNs) 并且有研究 (例如 Centr) 表明它们的使用与本地语言的在线内容相关联。超过150个IDN顶级域名, 包括通用顶级域名 (gTLDs) 和国家及地区代码顶级域 (ccTLDs), 已经被授权, 包括 .قطر (阿拉伯语的.network), .संगठन (梵文的.organization), .מקום (希伯来文的.com), .我爱你 (中文), .ไทย (泰语的.thai), and .eu (希腊语的.eu)等。



Domain Name System has expanded to include many new top-level domains including those in local languages.

The expansion of the DNS has also made the Internet more multilingual and inclusive of communities around the world, as domain names are now also available in a number of different languages and scripts. For example, the Russian domain name in Cyrillic script is универсальное-принятие-тест.москва. These are known as internationalized domain names (IDNs) and some studies (e.g. by Centr) show that

their use correlates with online content in local languages. More than 150 IDN TLDs, including both generic and country-code TLDs, have been delegated, including .قطر (.network in Arabic), .संगठन (.organization in Devanagari), .מקום (.com in Hebrew), .我爱你 (.Iloveyou in Chinese), .ไทย (thai in Thai), and .eu (.eu in Greek), and more.

## 基础设施

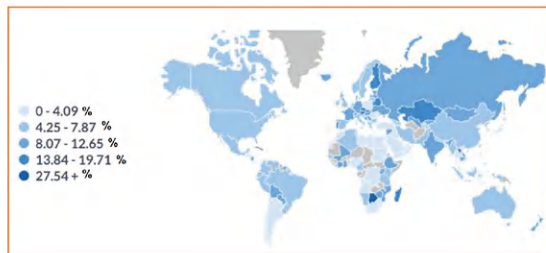
Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

## 由这些新顶级域组成的域名和邮件地址, 尤其是那些用本地语言的顶级域名, 还没有被应用软件很好地接受

尽管使用本地语言和字符的域名和邮件地址可获得, 但它们的被接受程度(例如可用性)并没有被当今的软件和应用程序很好地支持。例如, UASG开展的一项研究表明, 1000个网站中只有11%的网站以本地语言来接受全球的邮件, 例如: 韩语邮件 이 메 일 테스트 @ 다국어도메인이용환경테스트.한국。即使是用英文长字符的顶级域名如.engineering或者.international, 也只有85%的网站可以支持。这与早期的通用顶级域例如.com和.org, 和国家即地区代码顶级域如.sg和.cn被广泛接受的现实形成对比。另一项ICANN的深度分析表明, 250万个IP地址大概连接了全球3500万个邮件服务器, 这其中只有被7.32%的IP地址指向的20.26%的邮件服务器被配置为支持本地语言和字符的邮件地址。



The domain names and email addresses formed by using these new top-level domain, especially those in local languages, are not well-accepted by software applications

Despite the availability of domain names and their corresponding email addresses in local languages and scripts, their acceptance (i.e. usability) is not well supported by current software and applications. For example, a recent study conducted by the UASG reports that only around 11 percent of top 1000 websites globally accept email addresses

in local languages and scripts (for example, the Korean email address: 이메일테스트@다국어도메인이용환경테스트.한국). Even domain names using the long TLDs in English (in American Code for Information Interchange, or ASCII) such as .engineering or .international are only accepted by 85 percent of the websites tested. This is in contrast to domain names using earlier generic TLDs such as .com and .org and country code TLDs, such as .sg and .cn, which are generally accepted. Another detailed analysis by ICANN has found that out of the 2.5 million Internet Protocol (IP) addresses connecting approximately 35 million email servers globally, only 20.26% email servers pointed to by 7.32% IP address are configured to support email addresses in local languages and scripts.

## 普通适用和普遍适用指导组

普通适用是一种概念和状态。其中, 合法的域名和电子邮件地址包括国际化域名 (IDNs) 和新通用顶级域名, 被所有的软件和应用一致地接受和对待。达到UA能够确保互联网用户能够有效地在线浏览和交流, 通过选定的域名和电子邮件地址, 这些域名和电子邮件地址是和他们的兴趣、职业、文化、语言和字符相匹配的。因此, 通过赋能消费者选择和数字包容, UA是一个为达到有效接入的最根本性的要求。

ICANN 组织已经组成了普遍适用性指导组, 一个 ICANN支持的



志愿者领导的组织, 其目的是为了提升UA的认知度, 以及提出UA的补救办法。为了应对UA的多语言挑战, UASG已经确认了多个利益相关方, 包括技术开发人员, 邮件工具和服务商, 公共部门, TLD注册局和他们的注册商, 以及学术界。UASG由六个工作组组成, 以协助在UA补救过程中与各利益相关方开展合作。



## Universal Acceptance (UA) and Universal Acceptance Steering Group (UASG)



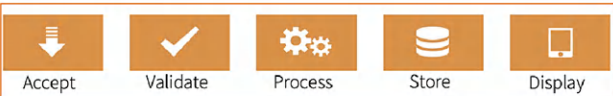
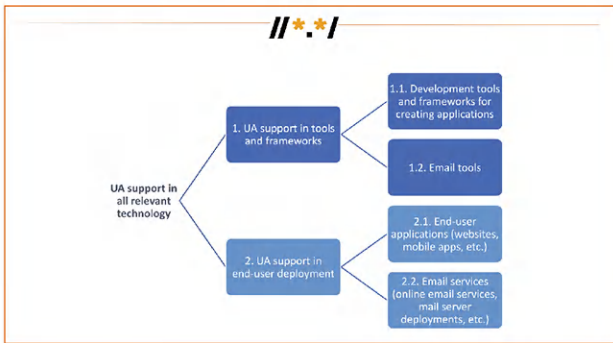
Universal Acceptance (UA) is the concept and state in which all valid domain names and email addresses, including IDNs and those formed with the new gTLDs, are accepted and treated consistently by all software and applications. Achieving UA ensures that Internet users can effectively navigate and communicate online using a chosen domain name and email address that best aligns with their interests, business, culture, language, and script. Therefore, UA is a foundational requirement for achieving meaningful online access by enabling consumer choice and digital inclusivity.

ICANN community has formed the Universal Acceptance Steering Group (UASG), a volunteer-led organization supported by ICANN org, that aims to promote UA awareness and address UA remediation. In order to address the multifaceted challenges of UA, the UASG has identified multiple stakeholders, including technology developers, providers for email tools and services, public sector, TLD registries and their registrars and academia. UASG has organized itself into six working groups to help engage with the various stakeholders in the UA remediation process.

## UASG正在致力于提升所有域名和邮件地址在所有软件应用的普遍适用性

UASG已经确定, 达到UA就绪的最好方法是每一项目标技术都经历多个步骤。在最开始, 相关技术需要有一个短名单, 并评估与现有的差距。技术的选择需要根据多个指标设定优先级, 例如用户短修复UA的影响。一旦差距被确定, UA相关的漏洞或者特性需求需要被提交给技术平台以便

在它们的下一个版本中被修复。与此平行的是, 当技术是UA相适应的, 或能够做到UA相适应的, 编码的例子需要被发展出来以表明如何正确运用这项技术来支持UA。对那些尚未做到UA适用的, 则需要额外的软件编码。一旦发展出支持UA的解决方案, 将有培训资料来培训利益相关方。这些培训需要全球的外展努力。



UASG is aiming to promote universal acceptance of all domain names and email addresses by all software applications.

The UASG has determined that UA-readiness is best achieved through multiple steps for each target technology. As a start, the relevant technology needs to be shortlisted and evaluated to determine the existing gaps. Selection of technology needs to be prioritized based on multiple factors, e.g., the impact of fixing UA on end users. Where the gaps are identified, the relevant UA-related bug or feature requests need to be submitted to the technology platforms in order to be fixed in their subsequent versions. In parallel, where technology is UA-compliant or can be made UA-compliant, code examples need to be developed to illustrate how to use the technology correctly to support UA. Extra software coding efforts may be required for technology that is not UA-compliant. Once the solutions to support UA have been developed, training materials are created to train relevant stakeholders. Such training requires global outreach efforts.



## 面向全球数字多媒体基础建设的纯图像真人交互式混合现实技术

Interactive Mixed Reality Based on Image for Constructing Global Digital Multimedia Infrastructure

申报机构:腾讯

Applying Institution: Tencent

案例涉及的国家/地区: 中国、泰国、印尼、越南等110个国家和地区

Countries and Regions Covered or Involved in the Implementation:

110 countries and regions such as China, Thailand, Indonesia, Vietnam

## 腾讯视频自研混合现实虚实交互技术,助力全球的全真互联互通。

Tencent's interactive mixed reality technology helps for world's better interconnectivity.

虚拟拍摄是一种能将实拍真人植入到虚拟场景中并实时交互的混合现实技术,可用于媒体、文创、教育与元宇宙等多个领域中。其可通过虚拟场景替代实景来节约成本,还可提高视频的画面效果与趣味性,有着广阔的前景。但现有解决方案均依赖昂贵、操作复杂的专业设备,因此难以推广普及。

Virtual production is a mixed reality technology that can implant real people into virtual scenes and interact with each other in real-time. It can be used in many fields such as media, culture creation, education, and meta-universe. It can replace the real scene with virtual scenes, which can not only save money significantly but also improve the visual effect and entertain the content. We can be sure that this cutting-edge technology has broad prospects. Unfortunately, existing solutions rely on expensive and sophisticated professional equipment, making them difficult to popularize.

腾讯自研的真人实时交互式混合现实技术,任何人都可以通过一台相机甚至手机把自己融入到虚拟世界中,极大降低了使用门槛和成本的同时,高品质的人物抠图、清晰稳定的画面、创新酷炫的互动也为内容创作带来无限发挥空间,具有广阔的应用前景和社会价值。

Tencent develops a technology of real-time interactive reality where everyone can integrate themselves into the virtual world with a camera or even a mobile phone. This technology lowers the bar on using virtual production and greatly reduces the cost. In addition, high-quality matting, high resolution, stable Image Output, and refreshing interaction also bring unlimited scope for content creation with broad application prospects and social values.



## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设,促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

## 经济性:低成本、高画质惠及全球

通过算法上的创新,我们只基于实拍图像,就可以准确地计算出相机的镜头参数、运动轨迹、人体各关节空间坐标等多项信息,对比传统方法不再需要使用硬件传感器,从而将每套几十万的硬件成本降低99%以上;而自研的抠图、防抖等模块,能够获取媲美专业影视制作软件的处理效果,保证高画质。除此之外,我们还自研了一套低成本绿幕制造方案,能适应传统绿幕直播间,做到全链路的硬件成本控制。整体方案能在保证画质的同时,大大节约成本,惠及全球用户。

### Economy: Low cost, high image quality, global benefit

We can accurately calculate large amount of information such as camera lens parameters, motion trajectories, spatial coordinates of human joints, etc. only based on the captured image through the innovation in our algorithm. Compared with traditional solutions, hardware sensors are no longer required, which can reduce the hardware expenditure of hundreds of thousands by more than 99%. It is worth mentioning that our self-developed cutting green-keying and anti-shaking technologies also can realize a high-quality image output competed with professional video editing software. In addition, we have developed a low-cost green background manufacturing scheme which can adapt to the traditional broadcasting studios and achieve full-link hardware cost control. The overall scheme can ensure the quality of the image and greatly save the cost. We believe our solution will benefit our clients all over the world.

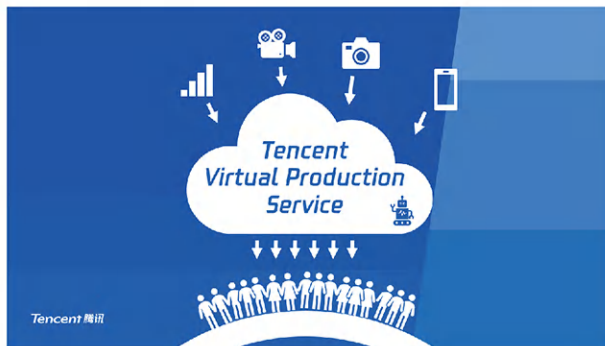
## 普适性:功能丰富,使用门槛低,适用全球大小各类用户

我们的技术方案功能完善,支持抠图、实拍/虚拟运镜、虚实交互、虚拟稳定器、多人异地同屏等多项功能。能在最大层面上给用户灵活、自由的选择。因为简化掉了除相机外的硬件传感器,用户无需再学习其安装调试方法,极大降低了使用门槛。对于专业用户来说,只需准备绿幕拍摄场景、摄像

机、灯光,就可立即使用;而对于普通个人用户来说,创新的无需绿幕的AI方案作为元宇宙、XR、VR领域的里程碑,能让用户随时随地实现轻量、便捷的虚实融合,并能保证运镜、交互等功能。

### Universality: Rich functionality, low barrier, suitable for users of all sizes around the world

Our technical solution supports various functions such as matting, camera movement, virtual-real interactions, virtual stabilizer, and virtual meetings. It can maximize options for users to customize flexibly. Our solution also lowers the bar in learning how to install and debug because it simplifies hardware sensors that users only need cameras. Professional users only need green background, cameras, and lights to deploy our solution. For individuals, our innovative AI scheme needs a green background which will be a milestone in meta-universe, XR, and VR. It enables users to achieve a lightweight, convenient mixed reality experience at anytime and anywhere, and can still provide functions such as camera movement and virtual interactions.



## 应用领域广泛:有助于推动全球多个领域的长足发展

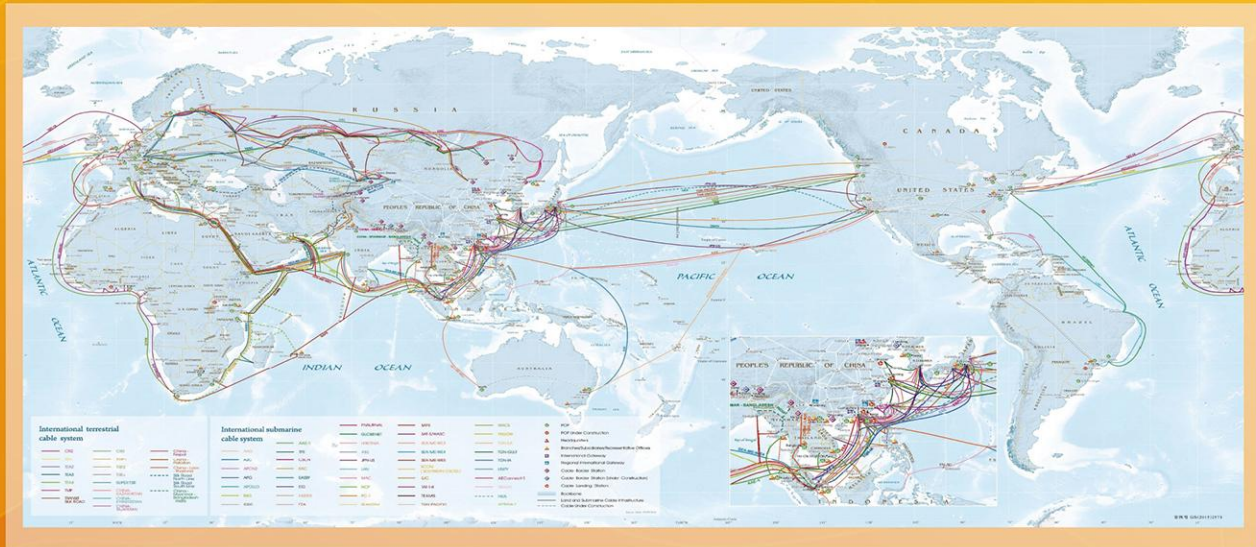
我们技术方案功能完善, 普适性好, 有助于推动全球多个领域的长足发展。对媒体行业来说, 我们的方案可以让全球大小各类用户, 都能用得起原先只有大型团队才能负担的高画质虚拟制片技术, 对比实体布景拍摄更为经济、简单, 普惠大众; 在画面上, 可通过精致的视觉CG特效提升观感。而在文创领域, 虚拟展览馆可以在古风场景中更加生动地展示历史文化, 提高国际传播能力。而在教育领域, 教师能用诗中的虚拟场景、绕于指间的“星球”, 更加形象地讲文学、物理知识, 把知识篆刻在学生脑海中。最后在娱乐领域, 用户可以体验到全新的真人-虚拟交互式体验, 开拓新的娱乐市场。



## Wide range of applications: Contributing to the rapid development of many areas around the globe

Our innovative solutions of virtual production can accelerate the development of many industries worldwide. The objective in media industry is to make the high-quality virtual production technology – which is only affordable by large consortiums – available to all types of customers including individuals. Customers can replace real decorations with virtual ones to reduce expenditure and add great visual effects to attract the audience. For the cultural and creative industries, the virtual exhibition hall can display the historical content more vividly in the ancient scenes and improve the dissemination of the cultural influence in a broader scope. In education industry, teachers can display the complicated structure of a chemical compound with a virtual model to make students get a better understanding. Finally, for entertainment purposes, users can enjoy a refreshing experience in mixed reality which can result in tremendous business opportunities.





## 共建“数字丝绸之路”, 助力“一带一路”沿线国家数字经济发展

Initiative to Jointly Build the Digital Silk Road, and Promote the Development of Digital Economy in Countries along the Belt and Road

申报机构: 中国电信集团有限公司

Applying Institution: China Telecom

案例涉及的国家 and 地区: 中国、菲律宾、泰国、老挝等7个国家和地区

Countries and Regions Covered or Involved in the Implementation:

7 countries and regions such as China, Philippines, Thailand, Laos

## 加强信息通信领域国际合作, 推动全球化的数字基础设施建设及网络互联互通, 弥合数字鸿沟。

Strengthen international cooperation in the field of information and communications, promote global digital infrastructure and network connectivity and bridge the digital divide.

近年来, 中国电信践行“一带一路”倡议, 积极推动东南亚及南亚国家数字基础设施建设及网络互联互通, 共建“数字丝绸之路”, 取得了良好的社会效益及经济效益。

In recent years, China Telecom has practiced the Belt and Road Initiative, actively promoted the construction of digital infrastructure and network interconnection in Southeast Asia and South Asian countries, and jointly built the "Digital Silk Road", which has achieved good social and economic benefits.

## 加快战略通道建设, 有效实现“一带一路”沿线国家数字基础设施的提质

中国电信于2016年-2022年期间同相关合作伙伴相继建成了总容量达到13.22T的大湄公河信息高速公路-中缅通道和中老泰通道、中尼跨境互联网光缆、首条中巴陆地直达光缆, 并积极参与ADC海缆和APG海缆建设, 不仅丰富了相关国家国际网络出口的多样性、提高了网络安全性, 还有效降低了网络时延、提升了网络质量。丰富的海陆缆系统, 构成了通达各国的高速传输网络, 形成了名副其实的“数字丝绸之路”, 进一步拉近了各国人民的距离。

### Speed up the construction of strategic channels to effectively improve the quality of digital infrastructure in countries along the Belt and Road Initiative.

From 2016 to 2022, China Telecom and its relevant partners successively built the Great Mekong River Information Expressway with a total capacity of 13.22T which includes China-Myanmar Passage and China-Laos-Thailand Passage, China-Nepal Cross-border Internet Optical Cable, the first China-Pakistan Land Direct Optical Cable, and actively participated in the construction of ADC and APG submarine cables. It not only enriches the diversity of international network exports of relevant countries, and improves network security but also effectively reduces network delay and improves network quality. The rich submarine cable system and terrestrial cable system constitute high-speed transmission networks to all countries, forming a veritable "digital Silk Road", which further shortens the distance between people of all countries.



## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设,促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

## 扎根本地化运营,大力促进当地数字经济的快速发展

中国电信PTO(Philippine Third Operator)项目,则是在“数字丝绸之路”上结出的另一颗硕果。2018年11月19日,中国电信和当地合作伙伴组成联合体正式中标成为菲律宾第三家电信运营商,并于2019年7月成功取得本地电信运营牌照,取名DITO,2021年5月17日,DITO宣布在菲律宾全国正式商用。截至2022年8月,项目共建设6000+座4G/5G基站;铺设光纤超2.2+万公里;新建IDC机房90+个;人口覆盖率超过70%,商用发展用户超1000万,并正在快速增长中,同时创造3万+个本地就业岗位。DITO的良性竞争,促使菲律宾平均网速从9.49M提升到38.12M,东盟排名从第9名提升到第5名,提速增幅302%,全球网速排名提高33位,网络资费下降超65%,全面改善了菲律宾的整体信息通信服务水平。

### Take root in local operation, vigorously promote the rapid development of local digital economy

China Telecom's PTO (Philippine Third Operator) project is another great achievement on the "Digital Silk Road". On November 19, 2018, China Telecom and local partners formed a consortium to formally win the bid to become the third telecom operator in the Philippines, and successfully obtained the local telecom operation license in July 2019, named DITO. On May 17, 2021, DITO announced its official commercial use in the Philippines. As of August 2022, 6000 + 4G/5G base stations have been built; more than 22,000 kilometers of optical fiber have been laid; 90 + IDC rooms have been built. The population coverage has exceeded 70% with over 10 million commercial users and rapidly increasing, and 30,000 local jobs were created as well. The healthy competition of DITO has promoted the average network speed of the Philippines from 9.49M to 38.12M with the ranking of ASEAN rising from 9th to 5th which was an increase of 302%. The ranking of global network speed has increased by 33 places, and the network rate has dropped by more than 65%. PTO has comprehensively improved the overall level of information and communication services in the Philippines.



同时,秉承“科技造福菲律宾人民”的信念,DITO为菲律宾带来了先进的通信技术。DITO网络在基于4G/5G先进无线网络+5G融合核心网的基础上,广泛采用了AI智能规划/控制/识别/交互/机器学习、云化原生敏捷、数据智能驱动等在内的数字化智能先进技术,构筑了“两数”(数字化连接+数据赋能)+“三智”(智能建设、智能运营、智能运维)的创新“数智”网络与经营布局,并开创性地推出了基于5G超高速带宽和低时延的FWA(无线家庭宽带)业务,为菲律宾人民提供了先进的连接便利、创造了丰富的数字化生活。其中,PTO项目云化原生平台技术获得了国际业界权威组织TM Forum颁发的2021 Cloud native IT & networks卓越奖;PTO数据中心获得W.Media评委会的认可,荣获2021年度W.Media东南亚区超大型创新项目(自动化)奖。

At the same time, adhering to the belief that "science and technology benefit the Filipino people", DITO has brought leading communication technology to the Philippines. Based on a 4/5G advanced wireless network and 5G integrated core network, the DITO network widely adopts AI intelligent planning, control, recognition, interaction, machine learning, cloud-native agility, data intelligent drive, and other advanced digital intelligent technologies. It has constructed an innovative "digital intelligence" network and business layout of digital connections, data empowerment, intelligent construction, operation, and maintenance. It also pioneered the introduction of FWA (wireless home broadband) services based on 5G ultra-high-speed bandwidth and low



delay. It has provided the Filipino people with advanced connectivity and created a rich digital life. Furthermore, PTO Cloud Native Platform Technology has won the 2021 Cloud native IT & networks Excellence Award organized by TM Forum, an authoritative organization in the international industry. The PTO Data Center was recognized by the W. Media Jury and won the W. Media Southeast Asia Very Large Innovation Project (Automation) Award in 2021.

## 务实合作, 为全球数字基础设施建设及网络互联互通贡献中国力量

在菲律宾, 中国电信同菲律宾当地政府和企业合作紧密, 共同促进了PTO项目如期成功交付。PTO项目投资预算52亿美金, 带动中国通信产业链上下游企业共同在通信设备及材料、建设安装服务、手机终端等方面贡献中国技术、中国标准、中国经验, 为菲律宾人民带来了更快速, 更便捷, 更安全的信息通信网络, 为菲律宾DICT产业发展打开了大门, 为Digital Philippines增加了新助力。

*Through practical cooperation, contribute China's strength to global digital infrastructure development and Internet connectivity.*

In the Philippines, China Telecom has worked closely with the local government and enterprises to facilitate the successful delivery of PTO projects on schedule. The PTO project has an investment budget of US \$5.2 billion, and leads upstream and downstream enterprises in China's communication industry chain to contribute Chinese technology, Chinese standards, and Chinese experience in communication equipment and materials, construction and installation services, mobile terminals, and other aspects. This has brought faster, more convenient, and more secure information and communication networks to the Filipino people, opening the door for the development of DICT industry in the Philippines and adding new power to Digital Philippines.

中国电信在70+国家和地区设立了分支机构, 与全球各主流运营商、当地政府和企业合作建立了紧密的合作关系, 建设了覆盖全球的高速网络和数量众多的网络接入节点, 并深入参与当地数字化转型建设。未来, 中国电信将坚定的同

全球各合作伙伴一道, 风雨同舟, 为弥合全球数字鸿沟贡献自己的力量。

Around the world, China Telecom has set up branches in more than 70 countries and regions, established close cooperative relations with mainstream operators, local governments and enterprises, built a high-speed network covering the world and many network access nodes, and deeply participated in the local digital transformation construction. In the future, China Telecom will firmly work with all partners around the world to bridge the global digital divide and contribute its own strength.





## 中国移动国际有限公司“路站岛”数字基础设施建设项目

China Mobile International "Highways, Stations, Islands" Digital Infrastructure Project

申报机构: 中国移动国际有限公司

**Applying Institution:** China Mobile International Limited

案例涉及的国家 and 地区: 中国、新加坡、马来西亚、老挝等40个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

40 countries and regions such as China, Singapore, Malaysia, Laos

**中国移动国际有限公司投资建设“一带一路”沿线“路站岛”数字基础设施项目, 构建包括“信息高速路”(传输资源)、“信息驿站”(POP点)、“信息集散岛”(IDC)在内的数字连接基础设施体系, 累计投资规模超过120亿人民币, 服务全球超过一半人口规模, 打造全球网络发展共同体。**

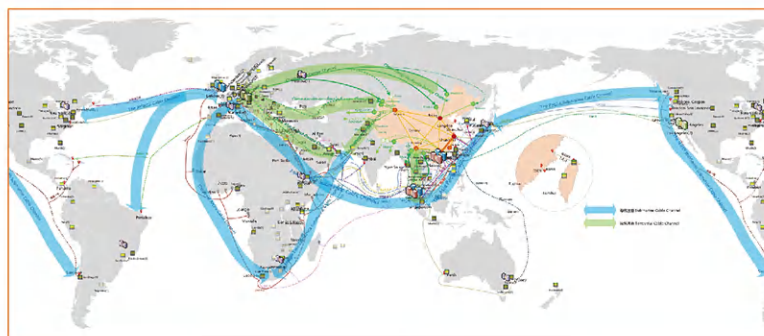
China Mobile International Limited has invested more than 12 Billion Chinese Yuan in the construction of the "Highways (Transmission Resource), Stations (PoPs), Islands (Data Centers)" digital infrastructure projects along the "Belt and Road". It contributes to the construction of a shared future for the global community in cyberspace with resources layout serving more than half of the world's population.

把握数字化时代发展契机, 促进全球互联互通, 推进跨国境、跨地域项目合作, 中国移动国际有限公司正依托全球“路站岛”新型数字基础设施布局, 完善空间信息基础设施, 并协同行业合作伙伴共建全球信息化服务生态圈。

To grasp the development opportunity of the digital age, promote global interconnection, and promote cross-border and cross-regional project cooperations, China Mobile International is developing a new global "Highways, Stations, Islands" digital infrastructure layout to improve the spatial information infrastructure, and cooperating with industry partners to build a global information service ecosystem.

## 推进“一带一路”数字基础设施建设, 打造数字丝绸之路

中国移动国际有限公司正布局构建“七海五陆”全球信息大通道。目前已投资海缆15条, 海缆带宽权益412T, 建成跨境陆缆系统28个, 跨境带宽41T, 为全球领先运营商。其中亚欧BAR-1海缆为在建亚欧方向系统设计容量最大的国际海缆通道, 带宽容量超过200T。同时在“一带一路”方向82个国家地区、121个城市布局183个“信息驿站”(POP点), 极大提升区域内连接设施能力。



中国移动国际有限公司全球数字基础设施布局

*The Global Digital Infrastructure Layout of China Mobile International*

### Promote the construction of digital infrastructure along “Belt and Road” and build a digital Silk Road

China Mobile International is building a global information channel of "Seven Submarine Channels and Five Terrestrial Channels". Currently, China Mobile International has invested in 15 submarine cables with the entitlement of 412T, and built 28 cross-border terrestrial cable systems with a cross-border bandwidth of 41T. This makes China Mobile International the top-ranking carrier around the world. The BAR-1 submarine cable is the largest international submarine cable in the Asia-Europe direction with a designed capacity of more than 200T. At the same time, China Mobile International has 183 "Information Stations" (POPs) in 82 countries and regions and 121 cities along the "Belt and Road", which greatly improves the communication facilities in the region.

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设,促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

## 把握RCEP战略合作契机,深入数字合作,促进中国-东盟信息通道合作升级

为加速完善与东盟数字连接设施,中国移动国际有限公司建设亚太SJC2海缆、SEAH2X海缆联通东南亚热点地区,中老泰陆缆通道由中国昆明贯穿中南半岛东部通达泰国曼谷,实现陆上超短时延。

Catch the opportunity of RCEP strategic cooperation, deepen digital cooperation, and upgrade China-ASEAN information channel cooperation

To accelerate the construction of digital connection facilities with ASEAN, China Mobile International is building SJC2 submarine cable and SEA-H2X submarine cable to connect hotspots in Southeast Asia. The China-Laos-Thailand terrestrial cable channel starts from Kunming, China, connecting through the eastern part of the Indo-China Peninsula to Bangkok, Thailand, achieving a leading low-latency network.

## 践行企业信息化建设社会责任,助力中非合作,共建全球网络发展共同体

作为首家投资建设环非洲沿岸地区海缆的中资运营商,中国移动国际有限公司投资2Africa海缆为迄今全球最大规模海缆项目,覆盖南非、沙特、法国等40多个国家,全长超45,000公里。

Fulfill the social responsibility as an enterprise, assist China-Africa cooperation, and jointly build a global network development community.

As the first Chinese carrier investing in the construction of submarine cables along the coast of Africa, the 2Africa submarine cable is the largest submarine cable project in the world so far, covering more than 40 countries including South Africa, Saudi Arabia, France and others, with a total length of over 45,000 kilometers.



中老泰通道路由示意图

The China-Laos-Thailand  
Terrestrial Cable Map

非洲2Africa海缆路由示意图

2Africa Cable Map

## 服务中国粤港澳大湾区及中国海南自贸区数字基础设施

中国移动国际有限公司投资建设中国香港火炭数据中心,建设规模9000架,打造中国粤港澳大湾区面向全球的算力核心枢纽;2021年建成连接中国海南的首条国际海缆,助力中国海南自贸区国际通信能力提升。

Serve the digital infrastructure of the Guangdong-Hong Kong-Macao Greater Bay Area and Hainan Free Trade Zone in China

China Mobile International has invested to build the Fo Tan Data Center in Hong Kong, China, with over 9,000 server cabinets to serve as an international communications and computing power hub. In 2021, the first international submarine cable connecting Hainan and Hong Kong in China was built, enhancing China's Hainan Free Trade Zone's international communication capability.



海南-香港国际海缆登陆

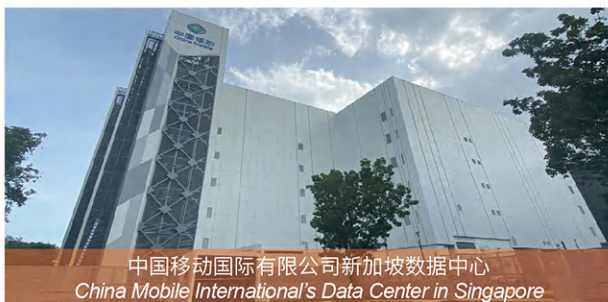
China Mobile H2H Express Submarine Cable Landed in Hong Kong, China

## 把握网络空间中核心数据中心资源优势, 保障数据安全, 提供“数据中心+网络”一站式服务

中国移动国际有限公司“一带一路”沿线已建成数据中心4个, 包括中国香港、新加坡、英国及德国数据中心, 投产总机架7937架。自建数据中心规模领先中资运营商, 既保障中资企业境外数据安全, 又为所在区域提供“数据中心+网络”的一站式服务。

Take the advantage of core data center resources in cyberspace, ensure data security, and provide one-stop service of “data center + network”

China Mobile International has built 4 data centers along the “Belt and Road”, including data centers in Hong Kong, China, Singapore, the United Kingdom, and Germany, with a total capacity of 7,937 racks. Being the leading data center resources provider among Chinese operators, China Mobile International not only ensures overseas data security for enterprises but also provides local access with comprehensive one-stop “data center plus network” services.



依托“路站岛”新型数字基础设施, 中国移动国际有限公司正推动全球新型算力网络建设, 连接超过80个国家和地区, 服务超800个电信运营商和3000家全球企业。一方面通过云网连接、数据中心、云化物联网等优势跨境产品, 面向热门出海行业提供行业化综合解决方案, 为超过2000家中资企业出海提供保姆式信息化服务; 另一方面通过整合优势资源, 协同行业伙伴共建全球信息化服务生态圈, 为“一带一路”沿线国家和企业提供新型信息化服务, 从而推动全球跨区域“设施联通”, 消除信息鸿沟, 打造全球网络发展共同体。

With the new digital infrastructure of "Information Highways, Information Stations, Information Islands", China Mobile International has been promoting the construction of a new global computing power network, connecting more than 80 countries and regions, serving more than 800 telecom operators and 3,000 global enterprises. On one hand, through cloud network connections, data centers, cloud Internet of Things, and other leading products, the network provides comprehensive industrialized solutions for popular overseas industries, and offers attentive informatization services for more than 2,000 Chinese enterprises to go overseas. On the other hand, by integrating resource advantages, China Mobile International cooperates with industry partners to build a global informatization service ecosystem, providing new informatization services for countries and enterprises along the "Belt and Road", and thereby promoting cross-regional "facilities connectivity" around the globe, and eliminating information gaps, and building a global network development community.



## 国际高能物理分布式计算平台

Cross-Continent Distributed Computing Platform for High Energy Physics

**申报机构:** 中国科学院高能物理研究所

**Applying Institution:** Institute of High Energy Physics Chinese Academy of Sciences

**案例涉及国家和地区:** 中国、中国台湾、瑞士、法国等11个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

11 countries and regions such as China, China's Taiwan, Switzerland, France

## 推动国际科学数据算力共享融合, 助力大科学装置科研产出, 构建全球高能物理网络空间命运共同体。

Promote the sharing and integration of data and computing power around the world, contribute to the scientific achievements of large-scale scientific facilities and build a global cyberspace community of destiny for high-energy physics.

现代高能物理实验数据量巨大(EB量级), 只能由国际合作方式汇聚全球算力和存储共同应对数据处理挑战。为助力全球化合作的高能物理大型实验, 需构筑全球共享数据处理平台, 面向全世界高能物理学家提供跨域分布式计算服务。

Modern high energy physics experiments produce huge data volumes (EB scale), and the challenges of data processing can only be met by international cooperation that brings together global computing power and storage. In order to facilitate global collaborations for large-scale high-energy physics experiments, a worldwide sharing platform needs to be constructed to provide cross-continent distributed computing services for global high-energy physicists.

## 高能物理与互联网技术的融合发展

上世纪80年代, 中国科学院高能物理研究所因参加欧洲的L3和ALEPH实验, 通过卫星链路实现中欧国际网络连接, 诞生了中国发出的第一封电子邮件, 开启了计算机科学全球合作之路。90年代初, 因美国SLAC参加BEPC实验而开通64K国际通信链路, 是中国首次接入国际互联网。进入21世纪, 与欧洲核子中心签署合作备忘录, 开启了分布式计算的国际合作。近10年来, 中微子、大型对撞机、宇宙射线、空间科学卫星等大型国际高能物理实验蓬勃发展, 大规模实验数据的共享, 促使高能所全面开始了全球化合作的分布式计算技术研究和平台建设。

## The Integrated Development of High Energy Physics and Internet Technology

In the 1980s, the Institute of High Energy Physics of Chinese Academy of Sciences (IHEP-CAS) participated in the L3 and ALEPH experiments in Europe and built the international network connection between China and Europe via satellite link, which gave birth to the first email sent from China and opened the way to global cooperation in computer science. In the early 1990s, a 64K international network link was established. That was the first time China accessed to the Internet. Entering the 21st century, a memorandum of understanding was signed with CERN which marked the opening up of international cooperation in distributed computing. In the past decade, large-scale international high-energy physics experiments have flourished around the fields of neutrinos, the large collider, cosmic rays, and space science satellites. In response to the storage, analysis, and sharing of large-scale experimental data, IHEP started the full-scale technology research and platform building for global collaborative distributed computing.

## 基础设施

Global Internet Infrastructure

### 加快全球网络基础设施建设,促进互联互通

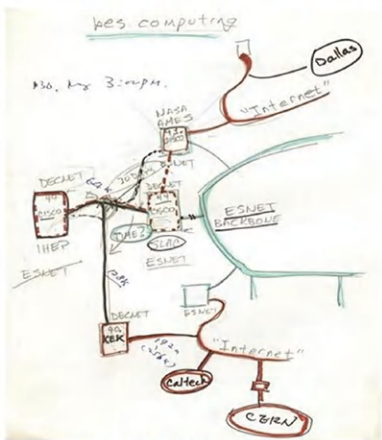
Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

```
#13      25-AUG-1986 04:11:24      NENMAIL
From:    VKCRNA:SHUQIN
To:      STEINBERGER
Subj:    link

dear jack,i am very glad to send this letter to you via computing link which
i think is first successful link test between cezn and china.i would like
to thank you again for your visit which leads this valuable test to be success.
now i think each collaborators among aleph collaboration have computing link wh
ich
is very important.ofcause we still have problems to use this link effectively
for analyzing dat of aleph in being. and need to find budget in addition,but mos
t
important thing is to get start.at the moment,we use the ibm-pc in 710 institute
to connect to you,later we will try to use the microwave communicated equipment
which we have used for linking ml60h before,to link to you directly
from our institute.
( please send my best regards to all of our colleagues and best wishes to you.cynt
hia
and your family.
by the way,how about the carpet you bought in shanghai?
weimin
```

#### 第一封国际电子邮件

#### The First International Email from China



#### 中美两国科学家1991年 草拟的IHEP-SLAC联网设计图

#### The IHEP-SLAC Networking Design Drafted by Chinese and American Scientists in 1991

## 分布式计算平台的全球合作之路

为了实现各大洲各国的数据中心的紧密合作和全球资源的深度整合,中国科学院高能物理研究所联合各国高能物理学家和计算机学家提出并建设面向这些大型实验的国际高能物理分布式计算平台。2015年以来,国际高能物理实验规模和合作数据中心数量逐步增加,从最初大亚

湾中微子实验只有中美两个核心数据区域中心,到高海拔宇宙线观测站实验LHAASO有7个国家贡献建设的位于中国的4个数据中心,再到江门中微子实验JUNO有18个国家参与位于全球的5个区域数据中心,以及正在建设中的中国空间站上HERD实验的欧洲多国成员表达了建设数据中心的意向。

### The Global Collaboration Road for Distributed Computing Platform

In order to achieve closer cooperation and deeper integration of global resources among data centers in various countries and continents, IHEP-CAS has proposed and built an international high-energy physics distributed computing platform for these large-scale experiments in collaboration with high energy physicists and computer scientists from various countries. Since 2015, the number of collaborating data centers have gradually increased from the DYW (Daya Bay Reactor Neutrino) experiment with only two core data regional centers in China and the US to the LHAASO (Large High Altitude Air Shower Observatory) experiment with seven countries contributing to the construction of four data centers located in China to the JUNO (Jiangmen Underground Neutrino Observatory) experiment with 18 countries participating in five regional data centers located around the world. And also, the European multinational members of the HERD experiment on the Chinese space station under construction expressing intention of contributing resources.



#### 分布式计算平台支撑国际高能物理实验开展全球数据共享合作

#### Distributed Computing Platform Supports International High Energy Physics Experiments for Global Data Sharing and Cooperation



## 全球中心-区域中心-边缘站点的分布式计算全球体系

平台建设全球中心-区域中心-边缘站点的三级数据分发模型和科学计算体系,由中国科学院高能物理研究所联合国际合作单位,以合作备忘录的形式,形成了包括意大利、法国、德国、俄罗斯等10多个国家和地区站点共同参与的数据与计算全球合作模型。此框架为全球高能物理学家提供稳定可靠的数据、计算、网络和信息化服务,旨在共同发展分布式计算平台基础设施和关键技术,推动科研活动和信息技术层面的全球化合作。目前加入平台的科研算力已超过10万CPU核,存储容量逐步接近EB量级,建立了高效、安全的国际合作网络环境。



JUNO、LHAASO、HERD国际高能物理实验合作组成员国家汇总,分布式计算平台依托合作组成员国家的直接或间接贡献而建立

*The Summary of Countries that are Members of the JUNO, LHAASO, HERD International High Energy Physics Experiment Collaboration (distributed computing platform is built on direct or indirect contributions from collaboration member countries)*

## Computing with Global Centers, Regional Centers, Edge Sites

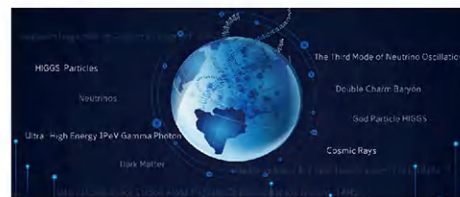
The platform builds the three-tiers data distribution model and scientific computing system based on the hierarchical structure of the global-center, regional-center and edge site. By signing the memorandum of understanding, the platform formed a global cooperation model of data and computing with the sites from more than 10 countries and regions, including France, Italy, Germany, Russia, and others. This framework provides stable and reliable data, computing, network and information services for high-energy physicists worldwide. It aims to jointly develop the infrastructure and key technologies for the distributed computing platform and to promote global cooperation on scientific research activities and information technology. At present, the scientific computing power joining the platform has exceeded 100,000 CPU cores. The storage capacity is gradually approaching EB scale, and an efficient and secure international network environment has been established.

## 拓展平台服务视野,助力全球科学研究

平台不仅支持建设于中国的高能物理实验,也支持其它大型国际合作实验,如欧洲大型强子对撞机实验、日本超级B介子工厂实验、国际空间站阿尔法磁谱仪实验等。依托平台提供的强大的数据处理能力和信息互通效率,来自50多个国家的超过700所科研机构的科学家,开展HIGGS粒子、中微子、宇宙线、暗物质等多个方向的基础研究,每年产出数以百计的科研成果,包括中微子第三种震荡模式的发现(国际基础物理学突破奖),HIGGS粒子的发现(诺贝尔物理学奖),双粲重子的发现(2017中国科学十大进展),超高能1PeV伽马光子的发现等有世界影响力的重大研究成果。

## Expand the Platform's Service Horizon and Contribute to the Global Scientific Research

The platform not only provides scientific data and computing services for the high-energy physics experiments located in China, but also supports a number of other large-scale international collaborative experiments worldwide, such as the European Large Hadron Collider experiment, the Japanese Super B Meson Factory experiment and the International Space Station Alpha Magnetic Spectrometer experiment. With the powerful data processing capability and information interoperability provided by the platform, scientists from over 700 research institutions in more than 50 countries conduct fundamental research on HIGGS particles, neutrinos, cosmic rays and dark matter, producing hundreds of scientific results every year. This includes several global influenced research results such as the discovery of the third mode of neutrino oscillation (International Breakthrough Prize in Fundamental Physics), the discovery of the God particle HIGGS (Nobel Prize in Physics), the discovery of the double charm baryon (Top Ten Advances in Chinese Science 2017), and the discovery of the ultra-high energy 1PeV gamma photon.



国际高能物理分布式计算平台支撑多领域基础研究  
产出多项轰动全球的研究成果

*International Distributed Computing Platform for High Energy Physics Supports Basic Research in Multiple Fields and Produces a Number of Global Sensational Results*



## 阿里云全球数据中心建设

### Alibaba Cloud's Global Data Centers

**申报机构:** 阿里云计算有限公司

**Applying Institution:** Alibaba Cloud Computing Co., Ltd.

**案例涉及的国家 and 地区:** 中国、新加坡、马来西亚、泰国等14个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

14 countries and regions such as China, Singapore, Malaysia, Thailand

## 建设全球范围的数据中心, 为全球的数字经济发展和数字化转型提供坚实的土壤。

Building a global-scale data center network is to provide a solid foundation for the global development of the digital economy and digital transformation.

自2014年走向国际市场以来, 阿里云陆续在全球各地建设数据中心、开放可用区, 在世界范围内与诸多科技巨头达成合作, 提供本地化服务。

疫情期间, 阿里云支持全球客户加速向云化、数字化转型, 降低疫情对业务带来的冲击, 助力世界迈向更团结的后疫情时代。

Since its international expansion in 2014, Alibaba Cloud has been building data centers and open availability zones all over the world, and it has partnered with many tech behemoths to provide localized services.

During the pandemic, Alibaba Cloud assisted their global customers in accelerating their digital and cloud transformations, mitigating the pandemic's impact on their businesses, and therefore helping the world in moving toward a more united post-pandemic future.

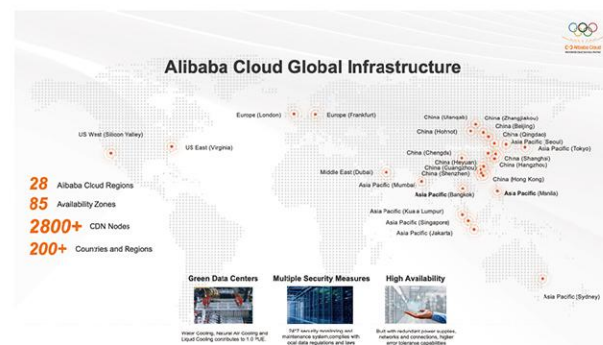
## 在全球范围铺设数据中心, IaaS市场份额实现全球第三、亚太第一

在加速推动数字经济持续健康发展的背景下, 数据中心作为数据资源的物理载体, 在现代信息网络建设、现代信息通信技术发展、全要素数字化转型中扮演着关键角色。自2014年走向国际市场以来, 阿里云已经在全球28个地理区域运营着85个可用区, 覆盖范围遍及亚太、中东、欧洲、北美, 在世界的各个角落提供云计算服务, 支撑数字经济发展。

### With Data Centers All Over the World, Alibaba Cloud Ranked Third in the Global IaaS Market and First in the Asia Pacific

Data centers, as the physical carriers of data resources, play a critical role in the construction of modern information networks, the development of modern information and communication technologies, and the digital transformation of all factors in the context of accelerating the sustainable and healthy development of the digital economy. Since its global expansion in 2014, Alibaba Cloud has operated 85 availability

zones in 28 geographical regions around the world, including Asia Pacific, the Middle East, Europe, and North America, providing cloud computing services in all corners of the world to support the development of the digital economy.



阿里云全球数据中心覆盖

Alibaba Cloud's Global Infrastructure

## 基础设施

Global Internet Infrastructure

加快全球网络基础设施建设, 促进互联互通

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

## 联合本地合作伙伴, 坚持建设本地团队, 融入本地生态

根据不同国家地区的市场特点, 阿里云选择与本地合作伙伴联手建设数据中心, 并发展本地团队。在欧洲, 自2016年于德国法兰克福开设数据中心以来, 阿里云陆续在德国、英国、法国等国家组建本地团队, 提供本地化服务, 赢得了西门子、SAP、施耐德等知名欧洲企业的青睐; 在中东, 同样是2016年, 沙特阿拉伯发布的“2030愿景框架”中, 阿里云与沙特电信的合作赫然在列——在2022年, 双方携手共建云计算合资公司, 并启用了两个可用区, 在沙特当地提供公有云服务。

### Collaborate with Local Partners, Insist on Building Local Teams, Integrating into Local Business Ecology

Alibaba Cloud chooses to collaborate with local partners to build data centers and develop local teams based on the market characteristics of different countries and regions. In Europe, Alibaba Cloud has been building local teams in Germany, the United Kingdom, France, and other countries since its first data center in Frankfurt, Germany in 2016. With its localized services, Alibaba Cloud are used by well-known European companies such as Siemens, SAP, and Schneider. In Middle East, also in 2016, Alibaba Cloud's collaboration with Saudi Telecom is a part of the "Vision 2030" released by Saudi Arabia, which leads to Alibaba Cloud and Saudi Telecom joining hands to build a joint venture for cloud computing and hence opening two availability zones in Saudi Arabia to provide public cloud services.



阿里云沙特合资公司启用两座数据中心  
Alibaba Cloud Saudi Arabia Joint Venture  
Opens Two Data Centers

在亚太, 阿里云于2021年宣布在未来三年中投入10亿美元, 加大建设本地化团队与生态、培养本地数字化人才、提升开发者能力。例如, 在韩国, 阿里云同样透过本地团队推进本地招聘和数字人才培养——到2023年, 预计将培训超过2000名IT专业人员, 以促进本地市场的数字化创新; 而在泰国, 阿里云推出“百合计划”, 联合百家合作伙伴共同服务当地市场。

In Asia-Pacific, Alibaba Cloud announced a \$1 billion investment over the next three years in 2021 to expand its efforts in the market to support local business ecology, train local digital talent, and enhance developer capabilities. Therefore, in South Korea, Alibaba Cloud is aiming to train over 2,000 IT professionals in the fiscal year of 2023 to promote digital innovation in the local market. While in Thailand, Alibaba Cloud announced the “Thailand Partner Alliance 100” program, in which it will collaborate with 100 partners to serve the local market.

## 在全球市场中分享经验, 为客户提供全方位云上创新及技术支持

疫情之下, 阿里云积极分享云上创新经验, 在马来西亚、印度尼西亚、菲律宾等多个国家, 为当地零售、金融、航空等行业提供技术支持, 助力其线上线下业务结合, 降低疫情对线下业务带来的冲击。

### Share Market Knowledge and Provide Customers with Full Range Innovation Solutions on the Cloud and Technical Support

During the pandemic, Alibaba Cloud actively shared its experience in innovations on the cloud and provided technical support to local retail, finance, aviation, and other industries in Malaysia, Indonesia, and the Philippines to assist them in integrating their online and offline businesses and mitigating the pandemic's impact on their offline businesses.

## 支持奥运实现首次云上转播, 北京冬奥实现全面上云

时间拨到2021年, 东京奥运会首次采用了奥林匹克转播公司(简称OBS)与阿里云共同推出的“奥林匹克转播云(OBS Cloud)”, 成功将转播中心占地面积缩小25%、现场转播工作人数量减少27%, 却能产出超过9500小时的体育赛事内容, 相较上届奥运会增加约30%。

### Support the Olympic Games Achieve Cloud Broadcasting for the First Time; Beijing 2022 Olympic Winter Games Become the First "Olympic Games on the Cloud"

Fast forward to 2021, the OBS Cloud debuted on the Tokyo 2020 Olympic Summer Games in 2021. Jointly launched by Alibaba Cloud and the Olympic Broadcasting Services (OBS), the OBS Cloud successfully reduced the International Broadcast Centre's footprint by 25% and the number of on-site broadcast workers by 27% while producing more than 9,500 hours of content, an increase of approximately 30% over the last Olympic Summer Games.



国际奥委会主席巴赫将东京奥运会火炬赠与阿里云表示感谢  
IOC President Bach presented the torch of Tokyo 2020 Olympic Games to Alibaba Cloud as an expression of gratitude

到了2022年, 奥运会云技术更进一步, 北京冬奥会不仅实现了在云上进行全球赛事转播, 而且完成了奥运赛事管理、运营和转播等核心系统100%上云的历史性工程。阿里云为此提供了全程的云计算技术和服

By 2022, the Olympics and Alibaba Cloud take one step further. The Beijing 2022 Olympic Winter Games not only achieved full global event broadcasting on the cloud, but also completed the milestone of putting 100% of the event management, operation, and broadcasting systems on the cloud. Alibaba Cloud provided the cloud computing technology and services behind all this.



阿里云工作人员在北京冬奥会现场提供技术支持  
Alibaba Cloud staff providing technical support at the Beijing 2022 Olympic Winter Games



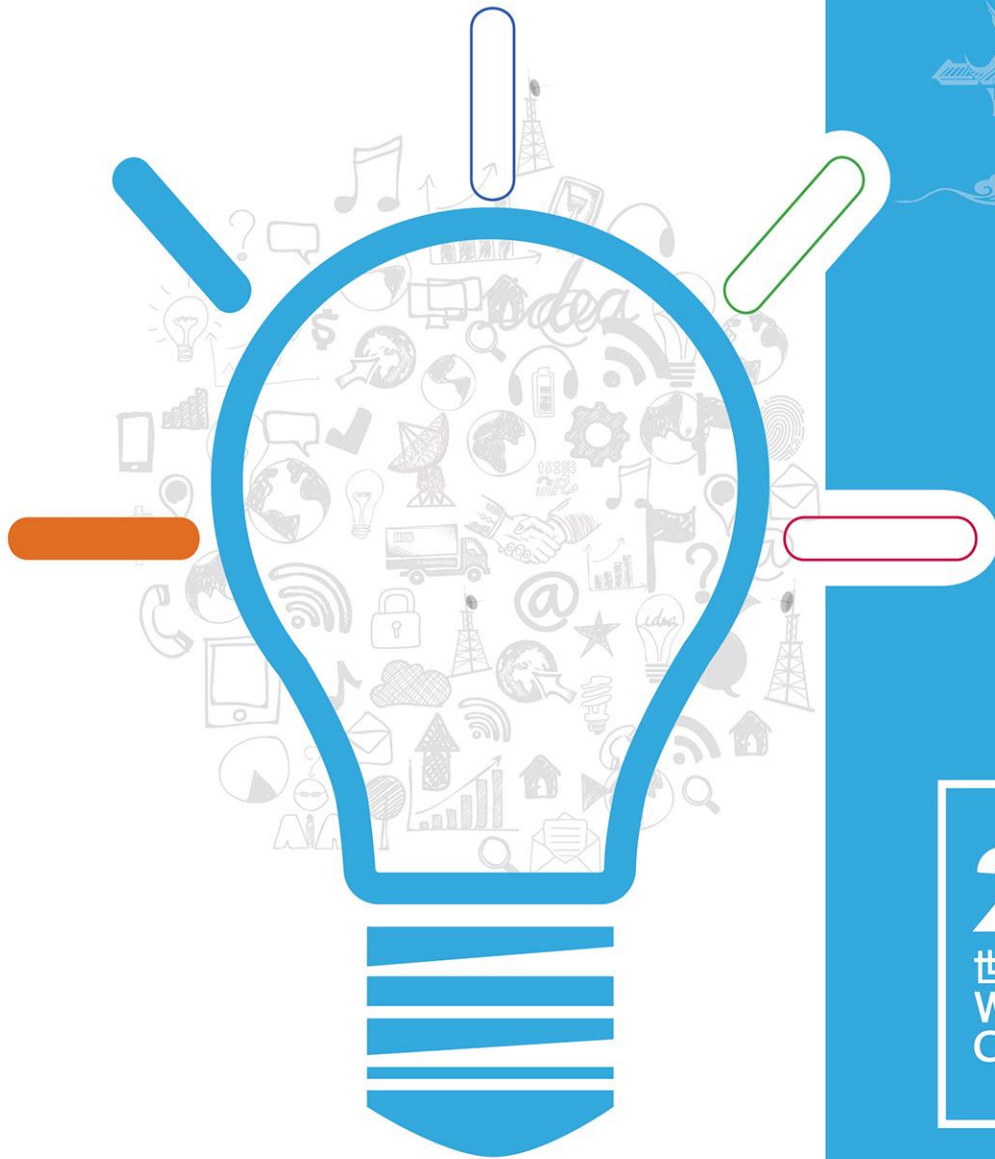
国际奥委会主席巴赫表示, 借助阿里云技术, 奥运会开启数字时代新篇章  
International Olympic Committee President Thomas Bach said that with Alibaba Cloud technology, the Olympic Games will open a new chapter in the digital era

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



# 2022

世界互联网大会  
World Internet  
Conference

文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

# 文化交流

*Online Cultural Exchanges and Mutual Learning*

打造网上文化交流共享平台, 促进交流互鉴

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



文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



HOME

CAVES

MURAL

SEARCH



Enter Mogao Grottoes Here

Enter the keyword (e.g.Apsaras) here and click the search

SEARCH

## 数字敦煌

Digital Dunhuang

申报机构: 敦煌研究院

Applying Institution: Dunhuang Academy

案例涉及的国家 and 地区: 中国、美国、英国、韩国等10个国家和地区

Countries and Regions Covered or Involved in the Implementation:

10 countries and regions such as China, United States, United Kingdom, South Korea



## 数字敦煌, 用高科技手段保护敦煌, 以新发展理念传承文化。

Digital Dunhuang: cultural heritages preserved by new technologies and developed under new philosophies.

古丝绸之路是东西方政治、经济、文化的交汇之路, 促进了多元文明之间的不断沟通、学习与借鉴, 推动了东西方文化的交融。如今, 先进的数字技术让丝路文化遗产重获生机, 以全新的方式继续推动世界优秀文化交流互鉴。

The ancient silk road facilitated the political, economic, and cultural interactions between the East and the West. As different civilizations met, mingled with, and learned from each other, cultures from the East and the West were fused together here. And now, the cultural heritages that embody the silk road, given new life by cutting-edge digital technologies, are contributing to cultural dialogues of the world in new ways.

### 数字敦煌, 科技保护

上世纪九十年代初, 时任敦煌研究院常务副院长的樊锦诗, 发现用计算机、摄影等科技方法可以永久保存洞窟信息, 进而与美国的西北大学、中国的浙江大学、武汉大学等科研院所开展合作, 深入探索研究数字化保护技术。2006年, 敦煌研究院成立了数字中心, 组建了一支专业的文物数字化保护团队, 全面开展了敦煌石窟数字化保护工程。经过三十年的探索与研究, 敦煌研究院已经形成了一整套适合不可移动文物的数字化保护关键技术和海量的数字资源, 实现了敦煌石窟的永久保存、永续利用, 同时, 也为中国7省13处遗址数字化的提供技术支持。



## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

## Digital Dunhuang: high-tech preservation

In the early 1990s, Fan Jinshi, the then executive deputy director of Dunhuang Academy, recognizing the possibility of permanently storing cave data with the help of computers, photography, and other technologies, started in-depth research into digital preservation technologies by collaborating with the partners such as the US-based Northwest University, China's Zhejiang University, and Wuhan University. In 2006, the Academy assembled a team of professional experts in the digital preservation of cultural relics under the newly-founded Digital Center. This marked the full-scale roll-out of the project to preserve Dunhuang Caves through digitization. Thirty years on, the Academy now has a full range of key digitization solutions to the preservation of immovable heritages as well as vast stores of digital resources. The target of perpetual conservation and utilization has been achieved for Dunhuang Caves. The Academy is also a source of technical support for digitization endeavors at 13 historic sites across 7 provinces in China.

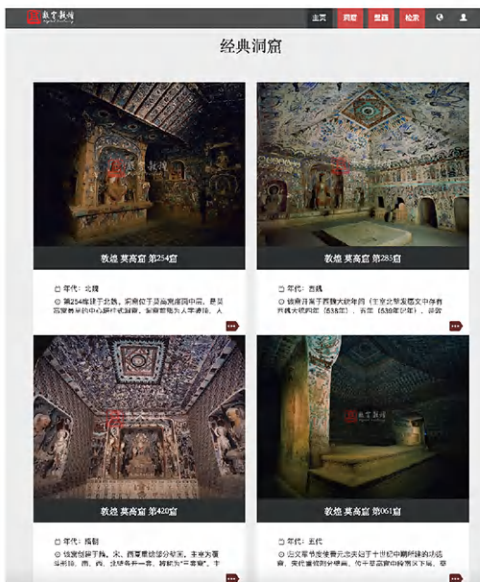


## 数字敦煌, 全球共享

敦煌研究院持续的实施敦煌石窟数字化保护工程, 形成了海量的数字化资源。截至2022年, 已经完成278个洞窟数字化摄影采集, 164个洞窟的图像处理, 145身彩塑和7处大遗址三维重建, 162个洞窟全景漫游节目制作, 50000余张档案底片的数字化。2016年“数字敦煌”资源库上线, 实现了30个洞窟整窟高清图像和全景漫游节目全球共享; 2017年9月, “数字敦煌”资源库英文版上线, 满足全世界用户足不出户领略敦煌文化, 至今, “数字敦煌”访问用户遍布中国、美国、英国、韩国、日本、意大利、俄罗斯、加拿大、法国、西班牙等全球78个国家, 累计访问量超过1680万余次。

## Digital Dunhuang: global access

As a result of continued inputs to the project of digitization-based preservation of Dunhuang Caves, Dunhuang Academy now possess enormous amounts of digital resources. As of 2022, the following milestones were reached: photographing 278 caves for digitization purposes, image processing for 164 caves, 3D reconstruction of 145 painted sculptures and 7 large sites, panoramic roaming of 162 caves, and digitization of over 50,000 archived negative films. In 2016, with the launch of the Digital Dunhuang Repository, high-resolution images and panoramic roaming of 30 caves became available globally. In September 2017, the repository started to offer English services, putting Dunhuang culture within easy reach of a global audience. So far, a cumulative total of 16.8 million visits, from China, America, Britain, South Korea, Japan, Italy, Russia, Canada, France, Spain, and others have been recorded.



## 数字敦煌, 交流互鉴

“数字敦煌”构建了一个数字化、集成化的大型石窟数字资源保障体系和网上综合敦煌文化服务平台, 架设了敦煌石窟艺术国际交流的桥梁, 加快了数字人文环境下敦煌学研究国际化进程。同时经过创造性转化和创新性发展, 形成了线上不同形态的内容产品, 发挥网络平台优势, 推动了中华优秀传统文化在国际间的交流互鉴和网络文化的繁荣发展, 让世界各国人民突破时间、空间的局限, 以全新的视角欣赏敦煌石窟艺术, 在人类共同活动的网络空间中, 共享世界文化遗产的知识内涵, 进一步满足人类精神文明的需求, 助力推动人类文明的进步。



### Digital Dunhuang: dialogue enabler

Thanks to Digital Dunhuang, digital cave resources are now managed on a large-scale, digital, and integrated platform, and one-stop online access to Dunhuang's cultural heritages is possible. By enabling international dialogues on Dunhuang cave arts, it is raising the profile of Dunhuangology among global researchers of digitization and humanities. The many forms of online content, generated by a creative process of reinvention, are helping introduce China's finest traditional culture to a global audience and fueling a cultural boom in the shared cyberspace. With the help of the Internet, it is possible for everyone, wherever they are and whenever they want, to benefit from new perspectives on Dunhuang cave arts and the rich knowledge contained within world cultural heritages. This promises greater spiritual abundance for all and further advancement in human civilization.

文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

国际

中文日

2022.04.20

壬寅年谷雨

International  
Chinese  
Language  
Day

中文：共筑美好未来

Chinese Language:  
Together for a Bright Future



CENTER FOR LANGUAGE  
EDUCATION AND COOPERATION  
中外语言交流合作中心



中文联盟  
ChinesePlus

## 国际中文日

### International Chinese Language Day

**申报机构：**中外语言交流合作中心、中文联盟

**Applying Institution:** Center for Language Education and Cooperation, ChinesePlus

**案例涉及的国家和地区：**美国、英国、俄罗斯、法国等105个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

105 countries and regions such as United States, United Kingdom, Russia, France

## 共筑美好未来

Together for a Bright Future

4月20日恰逢中国农历谷雨节气,也是联合国第13个中文日。作为发展国际中文教育事业的专业公益教育机构,中外语言交流合作中心(以下简称“语合中心”)联合中文教育网络平台“中文联盟”,携手全球合作伙伴,以“中文:共筑美好未来”为主题,发起2022年“国际中文日”活动,与全世界的中文教育者、学习者、中华文化爱好者共同庆祝这个中文大家庭共同的节日。

Together with the solar term Grain Rain, the 13th UN Chinese Language Day fell on April 20, 2022. As a professional public institution for the development of international Chinese language education, the Center for Language Education and Cooperation (hereinafter referred to as “CLEC”) and the online Chinese language education platform ChinesePlus, together with global partners, initiated the International Chinese Day event themed “Chinese Language: Together for a Bright Future” and joined by Chinese language educators, learners and Chinese culture lovers all over the world.

### 联手多国伙伴、共享美好愿景

语合中心联合中文联盟平台,面向全球发出2022年“国际中文日”活动倡议,得到各方积极响应。国际组织代表、驻华使节、世界汉语教学学会、中外高校、国际中文教育机构代表、文化学者、国际中文教师、志愿者和中文学习者等纷纷发来寄语视频,表达对中文的热爱和以中文联通世界、共筑美好未来的愿景。各国组织了包括中文课程、文化讲座、文学对话、电影展映等精彩纷呈的活动,共庆“国际中文日”。

#### Better vision shared by worldwide partners

The global initiative for the 2022 International Chinese Language Day jointly launched by CLEC and ChinesePlus received positive and wide social responses. Representatives of international organizations, diplomats to China, the International Society for Chinese Language Teaching, worldwide universities, international Chinese education institutions, cultural scholars, international Chinese teachers, volunteers, and Chinese language learners have sent videos expressing their love for the Chinese language and



联合国教科文组织大会主席圣地亚哥·莫朗和联合国教科文组织执行局主席塔玛拉·西亚马什维利在2022年联合国中文日和“国际中文日”活动上致辞  
Santiago Irazabal Mourão, President of UNESCO General Conference, and Tamara Rastovac Siamashvili, Chairperson of UNESCO Executive Board, addressed the event of 2022 UN Chinese Language Day and International Chinese Language Day.

their vision to connect the world with Chinese language and build a better future for all. Various activities including Chinese language courses, cultural talks, literature dialogues, and film screenings were organized to celebrate International Chinese Language Day.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

## 聚焦全球青年, 打造精品活动

语合中心联合中文联盟平台,制作“国际中文日”专题网站。在成果展示版块,介绍《国际中文教育中文水平等级标准》等“新标准”,展播“1+2”精品教材、中文精品课程等“新资源”,展示网络中文课堂、中文特色教室等“新品牌”,及与各国教育部门、国际组织和中外高校等开展各类“新合作”。

### High-quality activities for global youth

A website was launched by CLEC and ChinesePlus especially for International Chinese Language Day. The “Achievements” section presents the new standards such as “Chinese Proficiency Grading Standards for International Chinese Language Education”, and new resources like “1+2” quality teaching materials and Chinese language courses. It also showcases “new brands” such as Online Chinese Classroom and “Chinese+” Classrooms, as well as “new collaboration” with education departments, international organizations, and universities worldwide.

为庆祝此次中文日,语合中心与中央广播电视总台联合开展“开讲啦——全球共享一堂课”专题节目,邀请中国语言文化专家与现场各国青年、线上全球42国的100位中文学习者共享一堂中文课,在电视及网络进行展播。

To celebrate this Chinese Language Day, CLEC and China Media Group jointly produced a special program “Voice—Share One Chinese Language Class across the Globe”, inviting Chinese language and culture experts to give Chinese class to global youth, attracting an on-site audience as well as 100 online audiences from 42 countries. The program was live-streamed on TV and the Internet.

在文化活动版块,通过“讲·中国故事”“诵·中华经典”“唱·中文歌曲”“听·魅力国乐”“绘·中文日徽标”“悟·中国文化”等七大模块,分享全球中文爱好者学习故事,展示中医、武术等中华优秀传统文化在当代的蓬勃生命力。在

“全球精彩活动”专栏展示世界各地举办的丰富活动,呈现全球中文学习者共庆欢乐节日,共叙美好未来的盛况。

The seven culture-related modules, namely “Tell (My Chinese Stories)”, “Recite (Chinese Literature Classics)”, “Sing (Chinese Songs)”, “Listen (Classical Chinese Music)”, “Draw (International Chinese Language Day Logo)”, and “Understand (Chinese culture)”, share the learning stories of Chinese language enthusiasts around the world and shows the modern vitality of traditional Chinese culture, such as Chinese medicine and martial arts. The “Selected Global Activities” section displays a wide range of activities held around the world, presenting the joyous celebration of Chinese language learners and blueprinting their bright future together.



2022年“国际中文日”线上专题网页

2022 International Chinese Language Day Website Page

## 活动成果显著,影响广泛深远

本次“国际中文日”共计105国、600余个机构,在各地举办丰富多彩的活动1160场,其中包括69家中国驻各国使领馆,联合国教科文、世界旅游组织等国际组织,60多所外国知名高校和110多所国内院校,340多家孔子学院,10余个国际中文组织和20家中外企业、华文学校、华裔社团等,共吸引超过1.5亿人次参与。俄罗斯卫通社、美国美通社、南非独立在线、印度尼西亚《千岛日报》等51国主流媒体发布相关报道868篇,阅读量超过3000万。

## Remarkable results and far-reaching impact

This year's International Chinese Language Day included a total of 1160 events held by over 600 organizations in 105 countries. This included 69 Chinese embassies and consulates, UNESCO, the World Tourism Organization and other international organizations, more than 110 Chinese institutions, and 60 worldwide universities, more than 340 Confucius Institutes, over 10 international Chinese language organizations, more than 20 Chinese and foreign enterprises, Chinese language schools and Chinese communities, and reaching out to over 150 million people. Mainstream media from 51 countries, including Sputnik (Russia), PR Newswire (USA), Independent Online (South Africa), and Harian Nusantra (Indonesia) have published 868 related covers with a readership of over 30 million.

据统计,截至2021年底,全球共有180多个国家和地区开展中文教育,76个国家将中文纳入国民教育体系,全球正在学习中文的人数超过2500万,累计学习和使用中文的人数接近2亿。

According to statistics, by the end of 2021, more than 180 countries and regions around the world were engaging in Chinese language education; 76 countries have incorporated Chinese into their national education system; more than 25 million people are learning Chinese, and the cumulative number of people learning and using Chinese is close to 200 million.



2022年“国际中文日”  
全球精彩活动照片

*Photos of 2022 International  
Chinese Language Day events  
held around the world*

文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



## 亚洲数字艺术展

Asia Digital Art Exhibition

**申报机构:** 北京唐影众线文化传播有限责任公司

**Applying Institution:** Beijing Tangying Culture Communication Co.,Ltd.

**案例涉及的国家和地区:** 中国、中国台湾、日本、韩国等115个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

115 countries and regions such as China, China's Taiwan, Japan, South Korea



## 全球数字文明互鉴共享平台

### Mutual Learning and Sharing Platform for Global Digital Civilizations

2019年5月15日, 亚洲文明对话大会开幕。次日, 亚洲文明对话大会系列活动之一的亚洲数字艺术展开幕。

On May 15<sup>th</sup>, 2019, the Conference on Dialogue of Asian Civilizations (CDAC) commenced. On the following day, the Asia Digital Art Exhibition (ADAE), one of the events of the Conference on Dialogue of Asian Civilizations kicked off.

本案例积极发挥全球数字文化交流共享平台作用, 长期服务于全球各文明之间的交流互鉴。

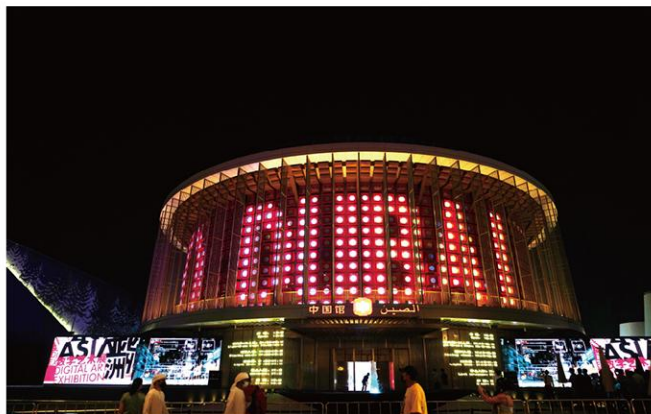
In this case, ADAE actively puts the role of global digital culture exchange and sharing platform into full play, providing long-term service to facilitate the exchanges and mutual learning among civilizations around the world.

## 助力全球数字文明交流互鉴走向深入

文化在国际交往中发挥着不可替代的作用。在数字经济时代, 数字文化作为文化交往的升级业态, 其价值愈来愈受到全球各国重视。2021年10月, 全球数字文化交流平台的亚洲数字艺术展与在世界有着广泛、深刻影响力的2020迪拜世博会联合合作, 集合数字人、三维扫描、XR等数字技术, 面向世界各国展示了数字时代的中国文化成果, 实现以数字文化交融超越文明隔阂, 助力全球数字文明交流互鉴走向深入。

### Fostering Mutual Exchange & Learning in Digital World

Culture plays an irreplaceable role in international contacts. As an upgrading form of cultural exchange, the value of digital culture has been given increasingly greater importance by countries around the world in this era of the digital economy. In October 2021, the Asia Digital Art Exhibition, a global digital culture exchange platform, collaborated with the globally influential Expo 2020 Dubai by integrating digital technologies such as digital humans, 3D scanning, and XR, and presented the achievements of Chinese culture in the digital era to the world. This cooperation has realized digital cultural integration that should transcend civilizational estrangement and has opened the opportunity to facilitate the enrichment and deepening of exchanges and mutual learning among digital civilizations across the world.



亚洲数字艺术展在2020迪拜世博会中展出  
Asia Digital Art Exhibition in Expo 2020 Dubai

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

## 数字文化创新表达全球文明

数字文化是文化与科技深度融合的新领域,以沉浸、交互等为特征,既有文化固有的温度,又有科技予人的新奇,为各国文明交流提供了新的表达词汇与语法。世界各文明在亚洲数字艺术展这个全球文明交流互鉴的平台上均留下了丹青时刻。来自澳大利亚的艺术家们以中国功夫为灵感创作了交互作品《功夫可视化》;而来自中国的艺术家们也对《一千零一夜》展开想象,创作了人机互动作品《一千零一夜》。创新的文化表达拉近了各国人民的心灵距离,堪为全球文明交流互鉴的一段佳话。

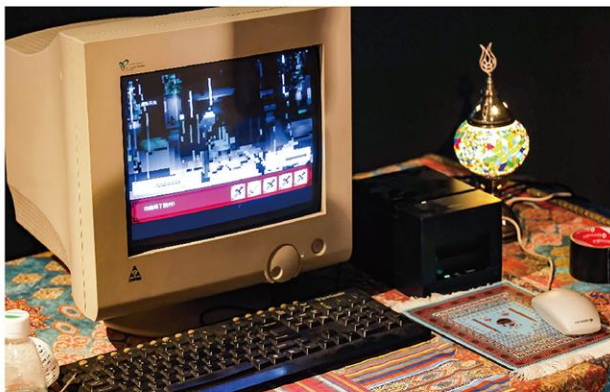
## Global civilization Expressed in Digital Culture Innovation

Digital culture is a new realm of the deep integration between culture and technology, characterized by immersion and interaction, featuring both the inherent warmth of culture and the novelty of the technology, and functioning as a new language for the exchange of civilizations among different countries. Various civilizations around the world have left their creative marks at the Asia Digital Art Exhibition, a leading platform for exchanges and mutual learning among global civilizations. Australian artists, inspired by Chinese Kung Fu, have created an interactive work called Kung Fu Visualization, while Chinese artists have let their imagination of “The Arabian Nights” take flight by creating a human-computer interactive work with the same name. Innovative cultural expressions have brought the hearts and minds of people of the world closer to each other, presenting a truly praiseworthy tale of exchanges, and mutual learning among global civilizations.



亚洲数字艺术展参展作品《功夫可视化》  
(来自澳大利亚艺术家邵志飞、莎拉·肯德丁)

*Kung Fu Visualization (from Australian artists  
Jeffrey Shaw and Sarah Kenderdine)*



亚洲数字艺术展参展作品《一千零一夜》  
(来自中国艺术家孙羽茜、冯浩祯、袁曾倩、赵栋)

*The Arabian Nights (from Chinese artists Sun Yuqian,  
Feng Haozhen, Yuan Zengqian, Zhao Dong)*

## 数字世界, 数字青年

数字文化是广受全球青年喜爱的新型文化业态, 亚洲数字艺术展作为全球重要的文化交流共享平台之一, 在全球年轻群体中有着较高声望和较大影响力。亚洲数字艺术展自2019年起成功举办四届, 共吸引来自亚洲、欧洲、美洲、大洋洲内的18个国家和地区的120余位艺术家参与, 以数字技术的形式完成了文化体验的创新, 加强了世界各国青年群体的情感沟通、拉近了各国青年的心灵距离。亚洲数字艺术展将打造全球青年数字艺术计划, 为各国青年创造交流机会, 持续提升世界各国青年群体的数字文化素养, 培养青年群体的全球化视野。

## Digital World, Digital Youth

Digital culture is a new form of cultural business that has found widespread acceptance among young people across the globe. As one of the world's crucial cultural exchange and sharing platforms, the Asia Digital Art Exhibition enjoys a stellar reputation and far-reaching influences among young people around the world. The event has been successfully held for four consecutive years since 2019, attracting more than 120 artists from 18 countries and regions in Asia, Europe, America, and Oceania. It has realized the innovation of cultural experiences through digital technology, strengthened emotional communications among young people all over the world, and brought them closer together in mind and spirit. The Asia Digital Art Exhibition aims to, for the youth around the world, establish a global digital art program, create worldwide exchange opportunities, ceaselessly improve their digital cultural literacy, and cultivate them with a global vision.



澳大利亚艺术家邵志飞(中)和美国艺术家陈小文(右)在亚洲数字艺术展现场交流

Australian artist Jeffrey Shaw (middle) and American artist Chen Xiaowen (right) communicated at the Asia Digital Art Exhibition

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

Google 艺术与文化

首页 浏览作品 玩一玩 附近 收藏 登录

谷歌艺术与文化平台故宫专区首页截图

Screenshot from the Palace Museum Chinese Home  
Page on Google Arts & Culture

# 身历紫禁城

探索恢宏的皇宫, 感受六百年春秋

申报机构: 故宫博物院、谷歌艺术与文化

Applying Institution: The Palace Museum, Google Arts & Culture

案例涉及的国家和地区: 美国、英国、澳大利亚、加拿大等11个国家和地区

Countries and Regions Covered or Involved in the Implementation:

11 countries and regions such as United States, United Kingdom, Australia, Canada

Google Arts & Culture

Home Explore Play Nearby Favourites

Sign in

谷歌艺术与文化平台故宫专区英文版首页截图  
Screenshot from the Palace Museum Chinese Home  
Page on Google Arts & Culture

## 故宫博物院携手谷歌文化学院打造数字“故宫百宝”

“Treasures of the Palace Museum”: Collaborative Project between the Palace  
Museum and Google Arts & Culture



The Palace Museum

China

## 借力国际平台 用数字文物讲好中国故事

Leveraging International Platforms: Utilizing Digital Cultural Heritage to Effectively Tell China's Story

2016年, 故宫博物院与谷歌文化学院签订协议, 合作开展“故宫百宝”项目, 将故宫高清文物影像、建筑全景虚拟漫游等数字产品汇集到谷歌艺术与文化平台故宫专区, 持续为全球用户提供具有故宫特色的线上文化艺术体验。

In 2016, the Palace Museum and Google Arts & Culture signed an agreement to collaboratively develop the “Treasures of the Palace Museum” project (Chinese title Gugong Baibao, lit. “Hundred Treasures of the Palace Museum”) by combining digital products such as high-definition images of pieces from the collection and panoramic virtual exploration of the Forbidden City's architecture on a special site dedicated to the Palace Museum on the Google Arts & Culture platform while continuously providing users around the globe with an online experience that includes quality features reflecting the unique characteristics of the Palace Museum.

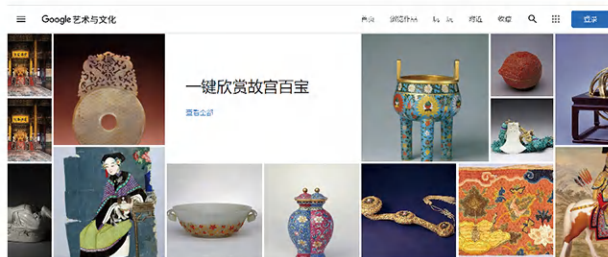
### “故宫百宝”上线谷歌艺术与文化平台 数字遗产全球共享

故宫博物院与谷歌文化学院在2016年10月签署合作协议, 将105件故宫藏品通过谷歌艺术与文化平台与公众分享。全球的互联网用户可以在这里欣赏到百件藏品共计230张高清图像, 通过中英双语介绍了解每件藏品背后的故事。这些甄选的藏品涵盖了包括绘画、法书、雕塑、陶瓷、金银器、家具、织绣在内的13个品类, 其中有描画历史的图轴、繁复精美的钟表、闻名于世的瓷器, 观众可通过网络探索广阔丰富的古代社会场景, 品鉴华夏瑰宝的厚重与活力。依托于谷歌的全球影响力, 故宫向全球文化爱好者传播藏品的艺术造诣与背后蕴含的中国传统思想, 共享文化遗产。

#### “Treasures of the Palace Museum” on Google Arts & Culture: Digital Heritage Enjoyed Globally

After the Palace Museum and Google Arts & Culture signed the agreement in October 2016, 105 collection pieces were shared with the

public on Google's platform. Global users have been able to appreciate these works by means of 230 high-definition images and read Chinese or English explanations to learn more about their background stories. The selection has thirteen categories including painting, calligraphy, sculpture, ceramics, gold and silver items, timepieces, furniture, and embroidery. Viewers can do web searches on the richness of ancient Chinese society and appreciate the vitality of Chinese treasures. Through Google's global influence, the Palace Museum is able to share traditional Chinese arts and their underlying philosophies with cultural enthusiasts around the world.



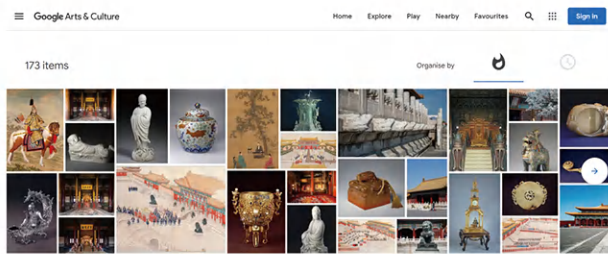
谷歌艺术与文化平台故宫专区故宫百宝板块截图  
Screenshot from “Treasures of the Palace Museum” on  
Google Arts & Culture

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



谷歌艺术与文化中心故宫专区故宫百宝板块截图

Screenshot from "Treasures of the Palace Museum" on Google Arts & Culture

## 亮相中国国际进口博览会 用技术创新探索藏品更多精彩

2018年11月, 首届中国国际进口博览会在上海国家会展中心举行, 由故宫博物院和谷歌艺术与文化中心合作完成的数字展示项目在展会上亮相。此次的展示内容将已经在谷歌艺术与文化平台上线的“故宫百宝”项目搬到线下, 通过进博会让全球更多观众得以了解。同时还展出了故宫与谷歌合作完成的项目——“3D作画”, 该项目带领观众从一条线开始了解故宫建筑的轮廓, 再通过二维的书画、三维的雕刻作品, 展示故宫精美的馆藏文物, 以更具创新力、想象力的玩法, 展现故宫建筑与藏品的艺术魅力。

### China International Import Expo Exhibition: Presenting Technically Innovative Art Exploration

In November 2018, the first China International Import Expo was held at the National Exhibition and Convention Center in Shanghai, and the Palace Museum and Google Arts & Culture successfully mounted a digital exhibition with features from "Treasures of the Palace Museum" along with a joint project between the Palace Museum and Google called "3D Painting", which led visitors on an exploration of the Forbidden City architecture and presented beautiful two-and-three-dimensional works in the collection of innovative and imaginative ways.



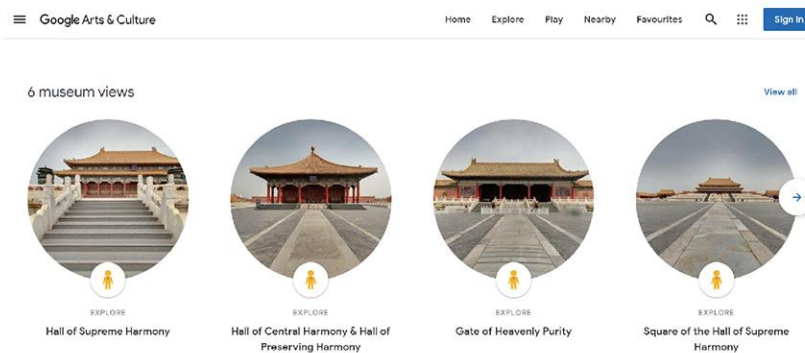
2018年中国国际进口博览会“故宫百宝”展项现场  
"Treasures of the Palace Museum" Exhibition at the  
China International Import Expo in 2018

## 虚拟漫游登陆国际平台 满足后疫情时代旅行新需求

2020年, 为庆祝紫禁城建成600年, 并使全球观众在疫情无法旅行的情况下也能身临其境地欣赏紫禁城之美, 故宫博物院在谷歌艺术与文化中心发布了故宫三大殿区域的全景虚拟漫游。通过全景虚拟漫游, 世界各地的观众可以足不出户游览故宫中著名的宫殿, 感受明清官式古建筑的独特魅力。同时故宫博物院配套制作19个在线专题对三大殿区域进行讲解, 例如在线专题“光绪皇帝的大婚庆典”中, 将清代宫廷画里描绘的三大殿仪式场景与如今实拍三大殿全景漫游结合展示, 让身处世界各地的人都能感受到建筑遗产为我们留下的超越时空的记忆。

## Virtual Exploration through International Platforms: Satisfying the Need for Tourism in the Pandemic Era

In 2020, as the Palace Museum celebrated the sixth centenary of the construction of the Forbidden City, which coincided with the global epidemic situation that has prevented the public from physically visiting the historical site and appreciating its beauty, the Palace Museum and Google Arts & Culture released the panoramic virtual exploration of the Forbidden City's palaces and halls. The Palace Museum selected high-definition images of the architecture and produced nineteen complementary online features, such as the “Grand Wedding of the Guangxu Emperor”, with historical paintings from the Qing dynasty (1644–1911) and an audio explanation of the Three Great Halls area. These additional media vividly elucidate the history and architecture of the Forbidden City while offering people around the world an engaging way to create memories that transcend time and space.



谷歌艺术与文化平台故宫专区虚拟漫游板块截图

*Screenshot from the Palace Museum Panoramic  
Virtual Exploration Area on Google Arts & Culture*



谷歌艺术与文化平台英文版故宫专区文化专题截图

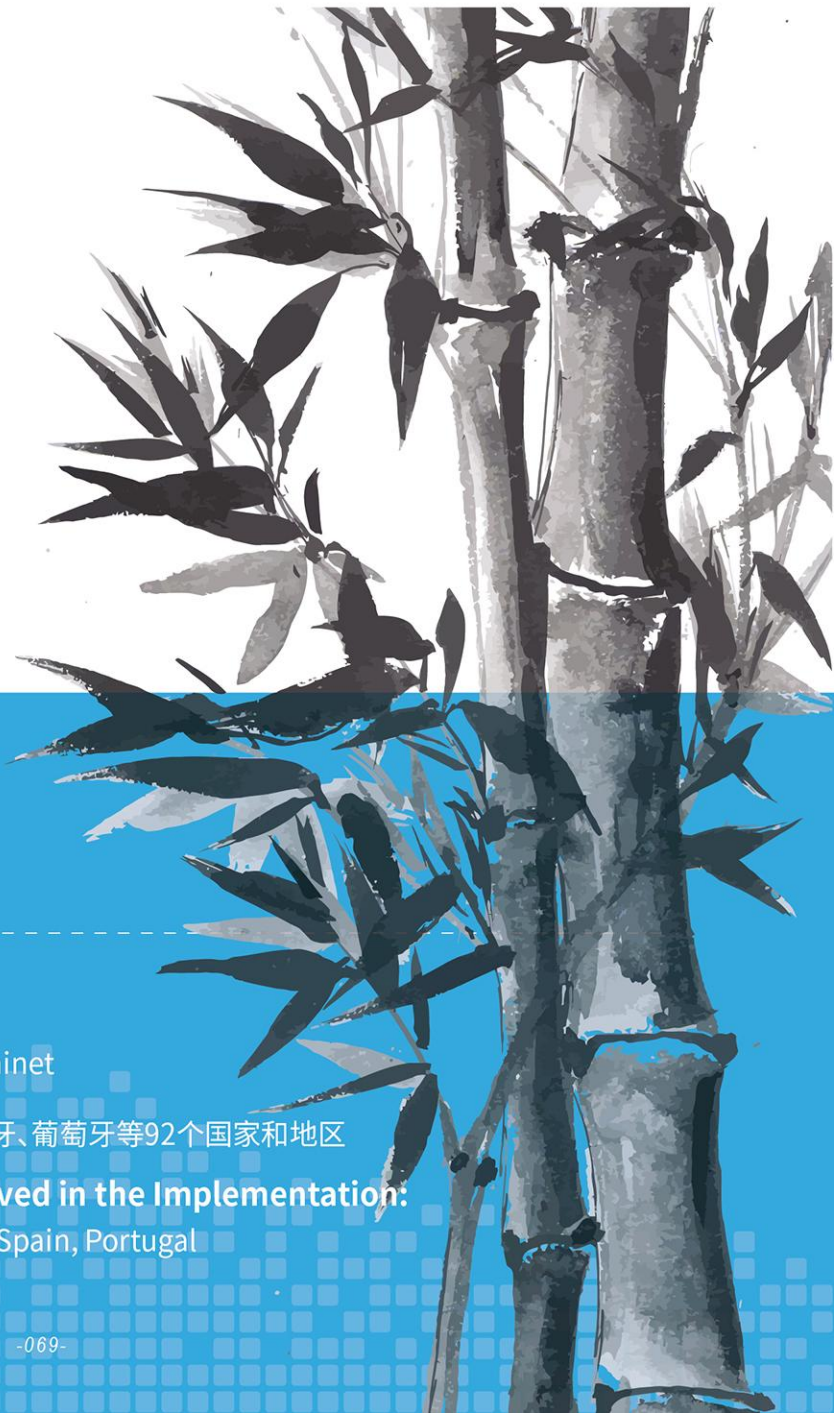
*Screenshot from a Cultural  
Feature on the Google Arts &  
Culture Palace Museum Site*

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



# 我在中国当大使

Talk with Ambassadors

申报机构: 人民日报海外网

Applying Institution: People's Daily Haiwainet

案例涉及的国家 and 地区: 俄罗斯、意大利、西班牙、葡萄牙等92个国家和地区

Countries and Regions Covered or Involved in the Implementation:

92 countries and regions such as Russia, Italy, Spain, Portugal



从2019年创办起,“我在中国当大使”栏目连续专访110位驻华大使。用110期的体量连续报道,让110名驻华大使讲述中国故事,在国际传播领域非常罕见。

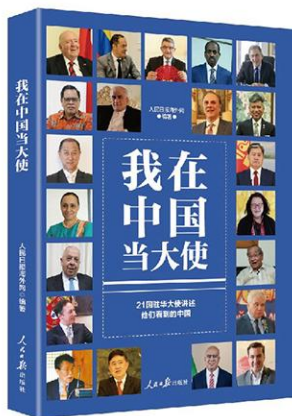
Ever since its launch in 2019, the column “Talk with Ambassadors” has specially interviewed more than 110 ambassadors to China. It is rarely seen in the field of foreign publicity that 110 continuous issues are released to cover stories of China told by 110 ambassadors to China.

栏目为讲述中国发展故事提供了全球视角与权威观察,从政治、经济、文化、社会、生态文明等多个领域全方位展示真实、立体、全面的中国。

The column provides a global perspective and authoritative observation for telling the story of China's development, showcasing the real, multi-dimensional, and comprehensive China in various fields such as politics, economy, culture, society, ecological civilization, etc.

## 在传播渠道上,实现“全覆盖”

一方面,栏目组推出高质量图文报道,在《人民日报》(海外版)第8版融媒时代连续推出《“我被中国先进科技吸引了”》《“中国抗疫经验值得学习”》《“期待再去湖北吃热干面”》等80多期整版报道。另一方面,栏目组310余条视频产品覆盖全球社交媒体,取得良好响应和使馆圈层认可。与此同时,2021年由人民日报出版社出版《我在中国当大使》一书,精选意大利、俄罗斯、韩国等21国驻华大使与他们的中国故事,进一步实现“破圈”传播。



### Full coverage in communication channels

On the one hand, the column has launched high-quality reports containing both pictures and texts. A series of more than 80 full-page reports are released under Section “Trending”, the 8th page of the People's Daily (Overseas Edition), which include "Attracted by China's Advanced Technology", "China's Fight Against COVID-19 Worth Learning" and "Longing for Hot-dry Noodles in Hubei Again", etc. On the other hand, the column has produced more than 310 videos covering mainstream social media platforms globally and received positive responses and recognition from the community of embassies. At the same time, in 2021, the People's Daily Press published the book *Talk with Ambassadors*, which selected ambassadors to China from 21 countries such as Italy, Russia, and South Korea and their stories with China and achieved communication beyond the ambassador community.

《我在中国当大使》一书2021年由人民日报出版社出版。

In 2021, the People's Daily Press published the book *Talk with Ambassadors*.

## 在叙事风格上, 注重“微视角”



与其他大使专访不同,“我在中国当大使”聚焦驻华大使们的个性化生活与工作体验,展示大使们鲜为人知的另一面。例如,印尼驻华大使周浩黎的微信里有各行各业的中国好友。他表示:“受到中国人民欢迎的幸福感是难以言表的,中国人有温暖、开放的心。”中国读者能在大使的中国故事中找到共鸣,外国读者也可以从中看到一个可信可爱可敬的中国。

### Micro perspective in narrative styles

Different from other exclusive interviews of ambassadors, "Talk with Ambassadors" focuses on the personalized life and work experiences of ambassadors to China, hence showing another side of ambassadors, which is rarely known to the public. For example, Djauhari Oratmangun, the Indonesian Ambassador to China, has Chinese friends from all walks of life on his WeChat. According to him, "it is hard to express his happiness as he is welcomed by the Chinese people. The Chinese are kind and open deep in the heart." Through the ambassadors' stories about China, Chinese readers can identify strongly with the stories and foreign readers can observe a reliable, adorable, and respectable image of China.

《印尼驻华大使周浩黎:朋友圈里有中国餐馆小哥》

*Ambassador of Indonesia to China: I have a Chinese restaurant boy as my WeChat friend*

## 在议题设置上, 做到“巧安排”

用距离中国最近的最有发言权的大使国际视角讲述道地中国故事,有力提升报道的思想性与公信力。例如,2021年,栏目组推出人民日报海外网献礼建党百年的拳头产品——“驻华大使谈百年大党”。通过全媒体手段有声有色呈现30国驻华大使与中国共产党的个性化故事,为展现中国共产党百年来的光辉历程提供了独特的权威视角,为国际舆论了解中国共产党成就提供了鲜活素材。专题采访对象来自欧洲、亚洲、非洲、美洲等各大洲,覆盖奥地利等发达国家、南非等新兴市场国家、尼泊尔等发展中国家,具有很强代表性。



“驻华大使谈百年大党”

*Ambassadors to China on the CPC*

## Delicate arrangement in topic settings

The stories are told from an international perspective by the ambassadors, who are the front chair and most qualified observers of China. In 2021, the column "Talk with Ambassadors" launched its knockout product on behalf of the People's Daily Overseas Edition in celebration of the centenary of the Communist Party of China - "Ambassadors to China on the CPC". The personalized stories of 30 ambassadors to China and the CPC are vividly presented through Omnimedia, which provides unique authoritative perspectives for showing the glorious history of the Party over the past 100 years, and offers fresh materials for international public opinion to positively evaluate the Party's achievements. The special interviewees are highly representative as they come from various continents including Europe, Asia, Africa, and the Americas, covering developed countries like Austria, emerging markets like South Africa as well as developing countries such as Nepal.



伊朗驻华大使推特转发“我在中国当大使”报道。

*Ambassador of Iran to China retweets "Talk with Ambassadors" report.*

## 在传播效果上, 实现“广触达”

截至2022年4月,“我在中国当大使”系列内容产品全网总阅读量突破15亿,在脸书、优兔等海外社交平台曝光量达30万人次。特别是在国际舆论场上,通过驻华使节这一关键少数群体精准落地海外。例如,哥伦比亚、巴基斯坦、伊朗等多国驻华使馆在其脸书、微博等使馆官方账号积极转发视频,起到了润物细无声的传播效果。

## Extensive exposure in communication effects

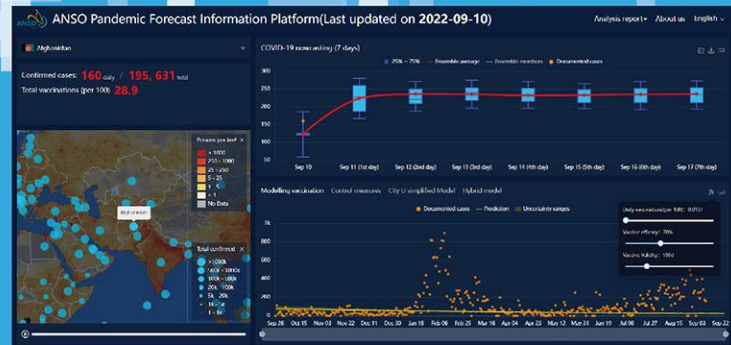
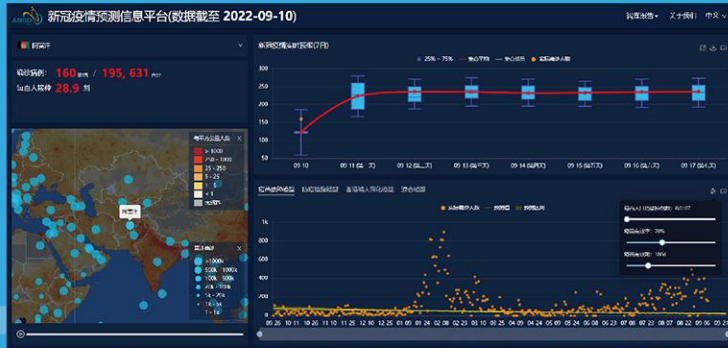
By April 2022, the total online reading of the "Talk with Ambassadors" series has exceeded 1.5 billion, with 300,000 person times of exposure on Facebook, YouTube, and other overseas social platforms. Through the key minority group of ambassadors to China, we have pinpointed the field of international public opinions. For instance, the embassies of Colombia, Pakistan, Iran, and other countries in China all actively forwarded videos on their Facebook and Weibo official accounts, which achieved sound publicity effects even without people's awareness.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



## ANSO疫情预测信息平台

### ANSO Pandemic Forecast Information Platform

申报机构：“一带一路”国际科学组织联盟

**Applying Institution:** The Alliance of International Science Organizations, ANSO

**案例涉及国家和地区:** 法国、匈牙利、柬埔寨、埃塞俄比亚、加拿大、阿根廷、新西兰等国家和地区

### Countries and Regions Covered or Involved in the Implementation:

Countries and regions such as France, Hungary, Cambodia, Ethiopia, Canada, Argentina, New Zealand

## 基于可实时在线业务化运行的疫情预测信息平台, 开展全球新冠疫情预报预测和咨询服务工作。

Based on real-time pandemic forecast information platform, provide global COVID-19 forecast and consultation service.

在新冠疫情大流行的背景下, 本项目研发的可实时在线业务化运行的疫情预测信息平台, 通过数据同化算法、考虑疫苗接种提高了预报精度。该平台对于了解疫情扩散程度、制定防控措施具有积极意义。

In the context of the COVID-19 pandemic, a real-time and operational data assimilation system named ANSO Pandemic Forecast Information Platform (ANSO-PFIP) was developed. We upgraded the nowcasting accuracy by improving the data assimilation algorithms and containing the vaccination in epidemic model. This platform has a positive impact on the dynamics of the spread of the pandemic and the implementation of prevention and control measures.

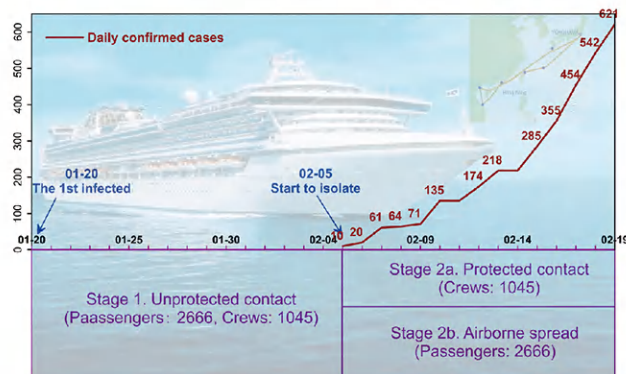
### 《“钻石公主号”邮轮新冠肺炎疫情重建与防控建议》

“钻石公主”号邮轮疫情, 是新冠疫情暴发初期病毒的聚集性感染的一个典型案例。该案例基于接触网络模型、Metropolis-Hastings采样、集合模拟的方式重建病毒传播过程。结果表明, 在疫情早期的密集社会交往情景下, 新冠肺炎病毒的平均传播率 $t=0.026$ , 基本再生数 $R_0=6.94$ , 是WHO报告中的3倍。这表明一个月后邮轮上所有的人都会感染病毒。采取了防疫措施以后,  $t$ 和 $R_0$ 分别降为0.0007和0.2。研究的启示是, 空气和环境污染也会造成传播; 除隔离措施外, 在封闭空间中采用降低空气中的病毒浓度手段是有用的; 高危易感人群必须遵循严格的防护措施以防被病毒侵袭。

Using the contact network model and Metropolis-Hastings sampling to reconstruct the COVID-19 spread on the “Diamond Princess”

The outbreak of COVID-19 in the cruise ship “Diamond Princess” is a typical case of cluster infection during the early COVID-19 pandemic. This case uses contact network, Metropolis-Hastings sampling and ensemble simulation to reconstruct spread of the disease. During the early epidemic with intensive social contacts, results reveal that the average

transmissibility  $t$  is 0.026 and the basic reproductive number  $R_0$  is 6.94, triple of that in WHO report, which indicates all people will be infected in one month.  $t$  and  $R_0$  reduce to 0.0007 and 0.2 when quarantine is implemented. The reconstruction provides implications that air and environmental pollution can also cause the transmission of the virus. Beside isolation, diluting the airborne virus concentration in closed settings is useful and high-risk susceptible should follow the rigorous prevention measures in case of being exposed.



“钻石公主号”邮轮每日确诊病例及其两个传播阶段(1、2a和2b)。P和C分别是乘客和机组人员数。IP和IC分别代表受感染的乘客和机组人员数

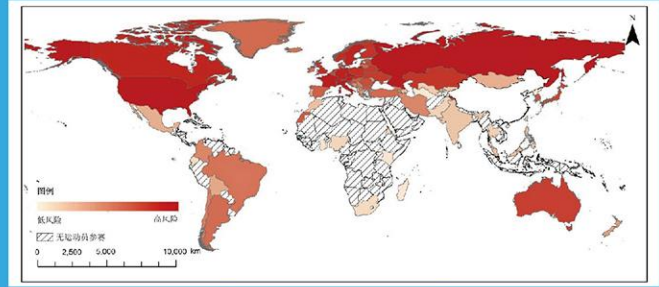
The daily confirmed cases and two stages (1, 2a and 2b) in the “Diamond Princess” epidemic. P and C are passengers and crews, respectively. IP and IC represent infected passengers and crew, respectively

## 《2022年北京冬奥会赛事期间的疫情预测与防控建议》

2021年底至2022年初, 新冠病毒Delta变异株病毒已至少扩散至全球, 致使前期已经或即将建立的群体免疫屏障质量降低, 直接影响全球的抗击疫情格局。奥运会期间的全球新冠疫情如何发展? 如何落实“简约、安全、精彩”的冬奥会办赛要求? 这给2022年北京冬(残)奥运动会的举办带来新挑战。首先对冬奥会举办期间全球、主要冰雪运动强国以及国内的疫情趋势进行了预测; 其次对冬奥会赛事期间聚集性感染评估, 认为提高疫苗接种率、推进疫苗加强针接种可有效抑制聚集性感染; 最后对冬奥会防疫政策提出建议。

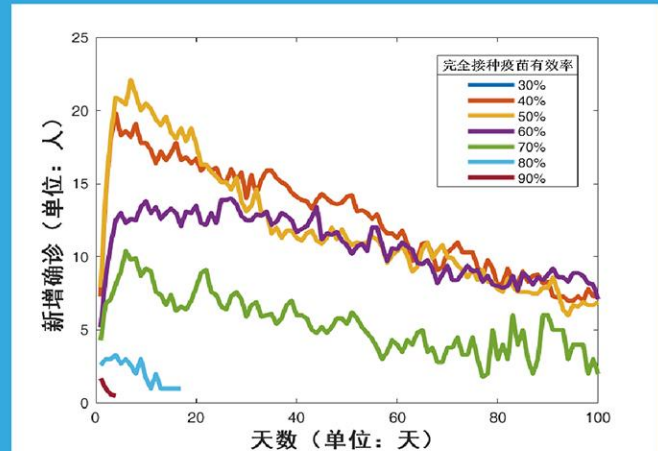
### Proposal of epidemic prediction, prevention and control during the Olympic Winter Games Beijing 2022

The Delta variant of the COVID-19 has spread to the world, resulting in a decrease in the quality of the herd immunity barrier that has been or will be established in the early stage, and directly affects the global fight against the epidemic. The variant brought new challenges to the 2022 Beijing Winter (Paralympic) Games, the spread of COVID-19 during the Olympic Games and how to implement the requirements of "simple, safe and exciting" Winter Olympics. First, the major ice and snow sports countries' epidemic trends during the Winter Olympics are predicted. Secondly, the cluster infection during the Winter Olympics is assessed, and it is believed that increasing the vaccination rate and promoting vaccine booster vaccination can effectively suppress clustering infection. Finally, the suggestions on the epidemic prevention policy of the Winter Olympics is put forward.



至2022年1月31日, 参加北京冬奥会的各冰雪运动国家或地区面向中国的疫情输入风险图

The map of infection importation risk from the ice and snow sports countries or regions participating in the Beijing Winter Olympics to China, by Jan. 31, 2022.



疫苗完全接种率达90%以上依然无法显著控制人员聚集引发的感染事件

The cluster infection events cannot be controlled in the case that the proportions of people receiving two doses is 90%.

## 《南亚和东南亚国家的新冠疫情案例研究, 以及疫苗分配和SARS-CoV-2变异对重返疫情前生活的影响》

2019新型冠状病毒病 (COVID-19) 在南亚和东南亚大多数国家的持续传播导致了严重的健康和经济损失。分析显示, 采用非药物干预措施后, 每日新增病例增长率显著下降 (66.18%), 远高于接种疫苗14天和28天后, 该值的降低速度 (15.98%)。因此, 在获得全球群体免疫之前, 采取严格的非药物干预措施是缓解COVID-19传播的关键。

Stringent Nonpharmaceutical Interventions Are Crucial for Curbing COVID-19 Transmission in the Course of Vaccination: A Case Study of South and Southeast Asian Countries Return to normal pre-COVID-19 life is delayed by inequitable vaccine allocation and SARS-CoV-2 variants

The ongoing spread of COVID-19 in most South and Southeast Asian countries has led to severe health and economic impacts. Analysis of the growth rate of daily new cases (Fig.3) indicates that the value decreased significantly after nonpharmaceutical interventions were adopted (66.18%). Vaccinations failed to significantly reduce the growth rates, which were 15.98% after 14 and 28 days of vaccination. Therefore, adopting stringent nonpharmaceutical interventions is the key to alleviating the spread of COVID-19 before attaining worldwide herd immunity.

## 新冠疫情预测信息平台ANSO-PFIP

在 ANSO 的带领下, 中国科学院和香港城市大学的相关研究人员通过密切合作, 研发了ANSO-PFIP (ANSO Pandemic Forecast Information Platform) 新冠疫情数据同化实时预报模型平台。该平台旨在显著提高新冠疫情的可预报性, 并面向包括ANSO成员机构和所在国在内的全球191个国家发布新冠疫情预报预测及发展趋势信息。平台结合了传统的传染病模型、大数据驱动和数据同化的方法, 已实现如下功能: 全球192个国家和地区的新冠疫情影响数据存取和管理; 基于参数估计和数据同化理论的疫情短期预报; 混合模型的疫情趋势中长期预报; 疫情数据的时空显示; 每日简报和周报功能。

ANSO-PFIP (ANSO Pandemic Forecast Information Platform)

Under the leadership of ANSO, researchers from the Chinese Academy of Sciences and the City University of Hong Kong have developed the ANSO-PFIP (ANSO Pandemic Forecast Information Platform) COVID-19 data assimilation real-time forecast model platform. The platform aims to significantly improve the predictability of the epidemic, and publish the COVID-19 forecast and development trend information to 191 countries around the world including ANSO member institutions and host countries. The platform combines traditional infectious disease models, big data-driven and data assimilation methods, and has achieved the following functions: data access and management of COVID-19 in 192 countries and regions around the world; short-term forecast of epidemic situation based on parameter estimation and data assimilation theory; medium and long-term forecast of epidemic trend of hybrid model; spatiotemporal display of epidemic data; daily briefing and weekly reporting functions.



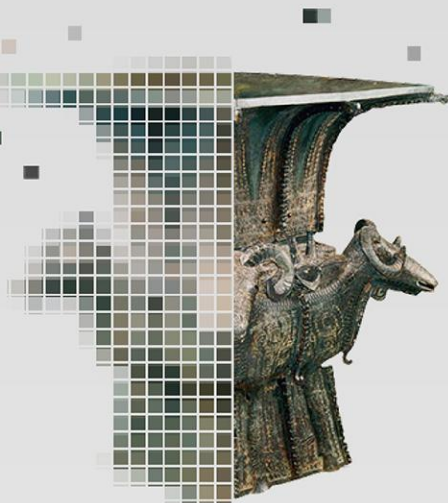
191个国家/地区群体免疫时间表。(A)当前实施的疫苗接种的时间表, (B) 更公平的疫苗分配策略的时间表, (C)表示从(A)到(B)的时间间隔。  
Timetable for herd immunity in 191 countries and regions. (a) demonstrates the timetable based on the current vaccinations administered. (b) demonstrates the timetable for more equitable vaccine allocation strategies. (c) shows the time span between (a) and (b).

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



# 百度百科博物馆计划

## BaiduBaik Museum Project

申报机构: 百度

Applying Institution: Baidu

案例涉及国家和地区: 中国、法国、俄罗斯、西班牙、美国、英国

Countries and Regions Covered or Involved in the Implementation:

China, France, Russia, Spain, United States, United Kingdom



## 将技术深入互联网文博领域, 在这里见证世界文明。

Embrace technology in virtual museums and culture to explore world civilizations.

百度百科博物馆计划是一个大型公益科普项目, 借助百度的技术优势, 通过音频讲解、实景模拟、3D建模、全景、VR等多种技术手段, 联动国际博物馆共建权威知识科普, 助力博物馆和藏品的数字化展示, 让用户随时随地感受全球博物馆的历史文化沉淀。

The BaiduBaikē Museum Project is a large-scale philanthropic project for popular science. It cooperates with international museums to build a platform for scientific popularization of expertise knowledge by applying Baidu's technological edges, audio guide, realistic simulation, 3D modeling, panoramic view, and VR. Besides, it provides a digital display of museums and collections, and help visitors get a glimpse of the history and culture of global museums regardless of time and place.



北京自然博物馆  
Beijing Natural History Museum

## 足不出户赏各国文明 全球博物馆覆盖

如果你想瞬间领略全球博物馆的文化魅力, 百度百科博物馆计划绝对是一个极好的选择。这里不仅有中国文博内容建设, 更含有法国著名景点枫丹白露宫、巴黎圣母院、巴黎现代艺术博物馆、巴尔扎克故居博物馆、克利夫兰艺术博物馆、纽约大都会艺术博物馆、高迪数字博物馆——圣家堂等在内的19家海外数字博物馆; 除了基础图文内容建设之外, 还有71家独家打造的全景博物馆, 无论你想通过什么形式获取知识, 这里都可以实现。目前百度百科博物馆计划已与全球596家博物馆合作, 收录25000多件藏品权威知识科普内容, 接待上亿位游客线上游览, 准备好来百度百科博物馆计划环游世界了吗?



巴黎圣母院  
Notre Dame de Paris

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

### Appreciate Civilizations of Different Nations at Home through Museums Worldwide

The BaiduBaiké Museum Project is an excellent choice if you are seeking to enjoy the cultural appeal of museums across the globe. The project includes the introduction to Chinese cultural relics and museums, and 19 overseas digital museums. Some of the digital museums include Metropolitan Museum of Art, Musée d'Art Moderne de la Ville de Paris, Palace of Fontainebleau, Gaudi Digital Museum - Sagrada Família, and Notre-Dame de Paris. Besides the compulsory descriptions and images, the project exclusively opens 71 panoramic museums where knowledge can be acquired in any way. To this time, the BaiduBaiké Museum Project has collaborated with 596 museums across the globe, amassing at least 25,000 pieces of authoritative knowledge and popular science contents. The project records hundreds of millions of online visits who get to tour the world through the BaiduBaiké Museum Project.



高迪数字博物馆  
Gaudi Digital Museum

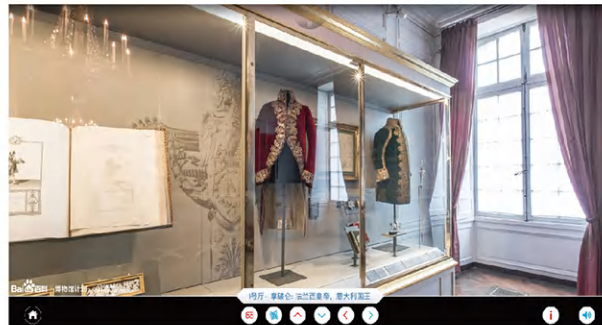
### 全景游览博物馆, 身临其境赏世界珍宝

站在圣家族大教堂的中央是一种什么样的体验呢?通过百度百科博物馆计划的数字博物馆就可以感受到。2017年百度百科博物馆计划还与西班牙高迪亚太研究中心、高迪国际会议联合打造高迪数字博物馆, 借助3D全景、AR、VR、语音讲解等富媒体和技术, 通过文字、图片、录音解说、立体flash、虚拟漫游、高空俯瞰等多种方式, 打破了时间、

地域的限制, 仿佛置身教堂之中, 向用户360°全方位展示世界各地300余家知名博物馆的场景和藏品, 部分藏品还支持720°交互旋转体验, 极大丰富了用户的感官体验。其中, 西班牙建筑大师安东尼·高迪的建筑作品、珍贵手稿、时代照片及相关文化研究的成果也都可以完整呈现在眼前。

### Enjoy Immersive Appreciation of the World's Treasure via Panoramic Museum Tour

Have you ever wondered what it feels like to be at the center of Sagrada Família? The digital museum of the BaiduBaiké Museum Project gives you the opportunity to virtually experience this feeling. Gaudi Asia-Pacific Research Institute and Gaudi World Congress in partnership with the BaiduBaiké Museum Project cooperatively built the Gaudi Digital Museum. The construction process incorporated technologies like audio guide, 3D panorama, VR and AR through ways of high-altitude overlooking, recording commentary, pictures, texts, virtual roaming, and stereoscopic slash among others. These adaptations remove the time and geographical barriers while showing users the scenes and collections of more than 300 famous museums in the globe. The feeling was likened in all aspects as that of the experience while in a church. The 720-degree interactive rotation experience designed for some of the collections significantly improves the sensory experience of the visitors. Some of the works that can be fully presented in front of visitors include precious manuscripts, architectural works, and the results of related cultural research of the Spanish architect Antoni Gaudi, and photographs of the times.



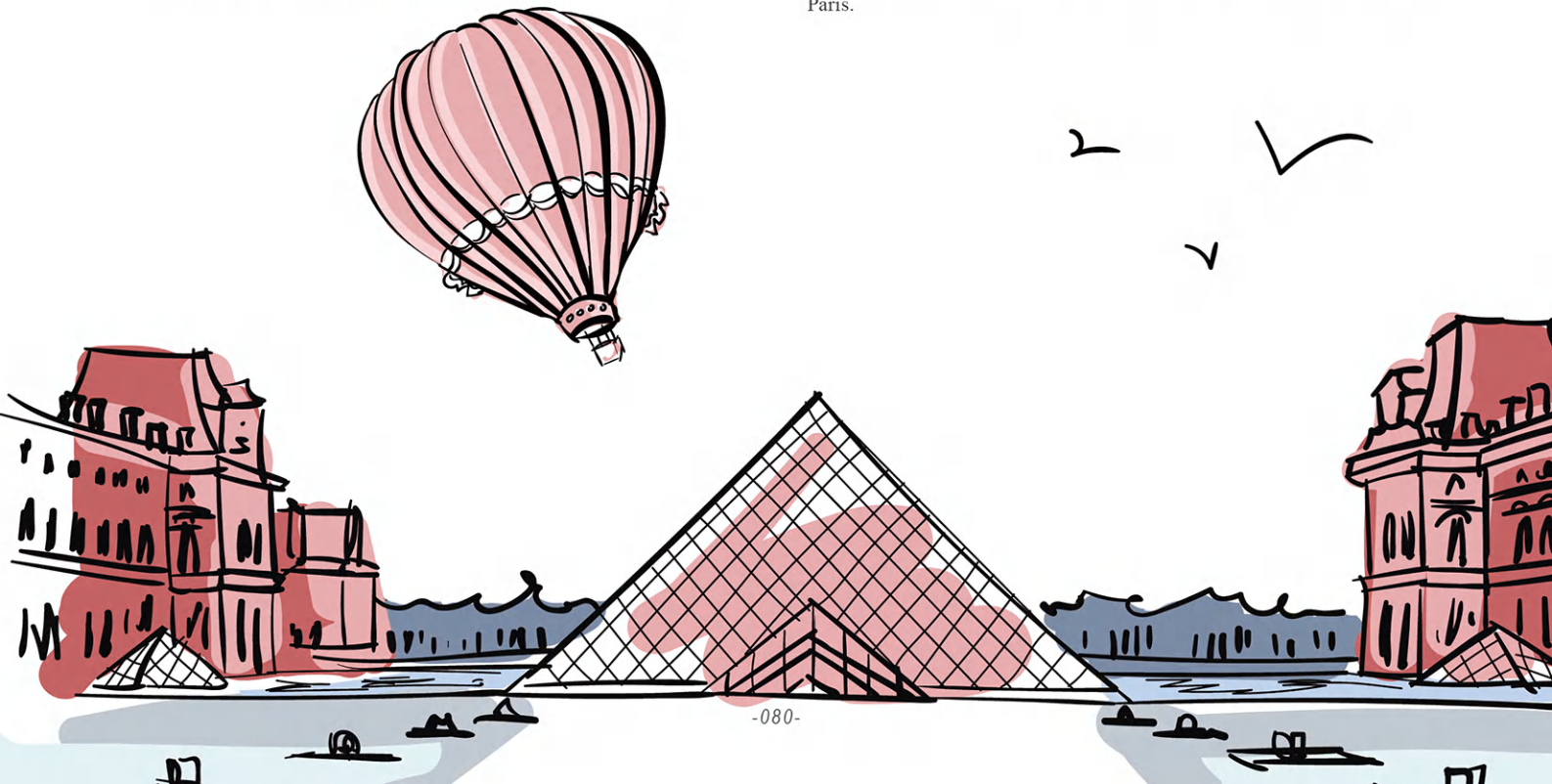
枫丹白露宫  
Fontainebleau Palace

## 百度全流量与技术支持, 国际博物馆合作日益密切

为促进世界文化交流, 2018年7月, 法国著名景点枫丹白露宫加入了百度百科博物馆计划, 也让中国文化与法国文化碰撞出耀眼火花, 用户通过全景博物馆就可以在线上探秘美丽的枫丹白露宫。同年9月14日, 百度百科与墨西哥、奥地利、德国三国代表共同签署MOU(合作备忘录), 秉承互相包容的原则, 推动中国和墨、奥、德三国文化彼此打开新的篇章。2019年巴黎圣母院遭遇不幸意外事件, 为保护世界文化遗产文明的传承, 百度百科博物馆计划小组在48小时内, 在虚拟世界通过全景技术完成建筑的全部复原, 这座伟大的人类文化遗产因此得到永久的保存, 目前用户可以在这里依然可以观赏到最完整的巴黎圣母院。

## Baidu Provides Comprehensive Traffic and Technical Support for Growing Cooperation with International Museums

Palace of Fontainebleau joined the BaiduBaiké Museum Project in July 2018. The aim of this alliance was to promote world cultural exchanges. As a result, the Chinese culture and French culture collided with dazzling sparks. Through the Panorama Museum, virtual visitors of the project can explore the beautiful Palace of Fontainebleau. During the same year later in September 14, BaiduBaiké signed memorandum of Understanding (MoU) with representatives from Germany, Austria, and Mexico. According to the MoU, involved parties would adhere to the principle of mutual tolerance while promoting cultural exchanges amongst the nations mentioned above. In 2019, the Notre-Dame de Paris fire had devastating negative effects. Through panoramic technology within 48 hours, the BaiduBaiké Museum Project team restored this whole virtual human cultural heritage. In this way, the great human cultural heritage, Notre-Dame de Paris, has been permanently reserved. Moreover, users can enjoy the complete experience of Notre-Dame de Paris.



kaspersky

We are committed to creating a more diverse, more secure industry and championing women in cybersecurity

# Empower Women

Women in cybersecurity stories →

Read all stories →

Career Insights →

Read our tips →

News hub →

Podcast →

Kaspersky report →

Partners →



Listen

Noushin Shabab

Yuliya Loktyushina

Daniela Alvarez de Lugo

Alessandra Venneri

Tatyana Shishkova

## 女性赋能--卡巴斯基科技界女性项目

### Empower Women – Kaspersky’s Project in the Field of Women in Tech

申报机构: 卡巴斯基

Applying Institution: Kaspersky

案例涉及的国家/地区: 澳大利亚、中国、阿联酋、土耳其、俄罗斯、巴西等14个国家和地区

Countries and Regions Covered or Involved in the Implementation:

14 countries and regions such as Australia, China, United Arab Emirates, Türkiye, Russia, Brazil

根据联合国教科文组织 (UNESCO) 的数据, 全球参加信息和通信技术 (ICT) 课程的学生中女性只有3%, 并且44%的女性表示, 男性在科技领域的进步比他们更快。卡斯基的科技界女性项目“女性赋能”旨在解决网络安全行业的两个重要问题: 性别多样性和人才技能短缺。

According to the data from the United Nations Educational, Scientific and Cultural Organization (UNESCO), only 3% of the students joining information and communication technology (ICT) courses across the globe are women. 44% of women said that men progress faster than they do in the tech space fields. Kaspersky's Women in Tech project "Empower Women" aims to address two important issues in the cybersecurity industry: gender diversity and shortage of talent and skills.

作为一家领先的网络安全公司, 卡斯基认为, 行业参与者可以在解决性别差距问题方面发挥关键作用并确保这项工作取得实质性的进展。因此, 我们开展了“女性赋能”项目, 并在澳大利亚、中国、阿联酋、土耳其、俄罗斯、巴西、墨西哥、西班牙、意大利、新加坡、法国、英国、南非、美国进行调研。项目平台的发言人包括来自中东、欧洲、北美和拉丁美洲、亚太地区 and 俄罗斯斯坦地区的卡斯基女性员工。

As a leading cybersecurity company, Kaspersky believes that industry actors can play a key role in tackling the gender gap issues and ensuring that real progress is happening. Therefore, we launched the project and hold a survey in multiple countries including Australia, China, the United Arab Emirates, Turkey, Russia, Brazil, Mexico, Spain, Italy, Singapore, France, the United Kingdom, South Africa, and the United States. Speakers for the website included Kaspersky's female employees from META, Europe, North and Latin America, APAC, and RussiaStan regions.

## 平等理念促进科技界性别多样

我们相信, 无论来自何处、性别和背景如何, 每个人都应有一席之地, 都可以在网络安全领域蓬勃发展, 因为对于候选人来说, 唯一重要的是他们的个人能力。卡斯基倡导性别平等, 包括研发和信息技术专家在内, 公司有超过1100名员工是女性。并致力于创造一个更多样化、更安全的行业。

### The equality idea promotes gender diversity in the technology industry

We believe that there is a place for everyone regardless of their origin, gender and background. Therefore, everyone can flourish in the cybersecurity sector since the only thing that matters in a future candidate is their individual abilities. Kaspersky advocates for gender equality. More than 1100 employees of the company, 's R&D- and IT-specialists included, are women. The company is committed to creating a more diverse and secure industry.

The graphic features the Kaspersky logo at the top left. Below it, a statement reads: "We are committed to creating a more diverse, more secure industry and championing women in cybersecurity." The central text "Empower Women" is prominently displayed in a large, bold font. Below this, five diverse women are shown in a row, each with a name tag: "Alexandra", "Daria", "Elena", "Olga", and "Svetlana". At the bottom right, a large white callout box contains the statistic "56% of women working in IT globally agree that there are now more women in IT and tech roles in their organization than two years ago." To the left of this callout, a smaller text block explains that Kaspersky began research in 2018 and 2020 across Europe, North America, Latin America, and the APAC region, and that 87% of surveyed women agree that gender equality has improved in their organizations since COVID-19, with benefits like working from home, flexible schedules, and increased confidence.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

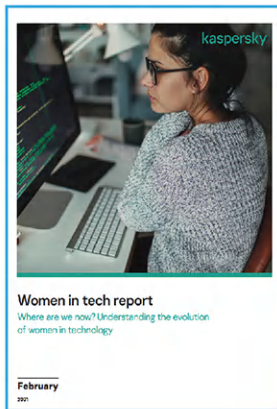
Building an Online Platform for Cultural Exchanges and Mutual Learning

“女性赋能”项目旨在通过提高认识和分享榜样经验来支持女性的职业发展,以帮助她们应对保护世界免受网络威胁的挑战。项目包括创意内容的创作、与区域政府和非政府组织的伙伴关系及组织联合讨论。迄今为止,该项目已经覆盖全球超过13000名受众。

The “Empower Women” project is aimed at supporting the career growth of women who are up for the challenge of protecting the world from cyber threats by raising awareness and sharing role models. This includes creative content creation, partnerships with regional governmental and non-governmental organizations, and organizations of joint events (round-tables and panel discussions). To date, the project has reached more than 13,000 audiences worldwide.

## 多元项目助力科技界女性发展

Multiple projects support women's development in the technology industry



### 1. 卡斯基“科技界女性”报告

卡斯基在2018年就这一主题进行了首次研究,并于2020-2021年进行后续工作,旨在了解女性在科技领域的发展。研究组采访了欧洲、北美、拉丁美洲和亚太地区的女性,讨论女性在科技领域的地位、感受以及在过去两年中的变化。该报告发布在专题网站,涉及在(疫情)大流行时期实现新形式的工作与生活平衡,以及越来越需要新的榜样等问题。

#### 1. Kaspersky “Women in Tech” report

In 2020-2021 Kaspersky undertook a research designed to understand the evolution of women in technology following its first research on this topic in 2018. We spoke to women in Europe, North America, Latin America, and the APAC region about where women stand in technology and IT, how they feel, and what has changed over the past two years. The report was published on the dedicated website and covers such important issues as new work-life balance in times of pandemic and the increasing need for new role models.



### 2. 卡斯基科技界女性网络平台

平台包含卡斯基女性员工的励志故事,“职业洞察”专栏,提供宝贵的建议,如简历的撰写,团队领导力和如何开始网络安全职业生涯等。该平台还发布了交互式网络安全职业时间表,及公司专家对女性在该领域开始或继续职业生涯时常见的问题的回答。为此,项目组在网络社区进行了研究,以发掘最受关注的话题。

#### 2. Kaspersky Women in Tech platform

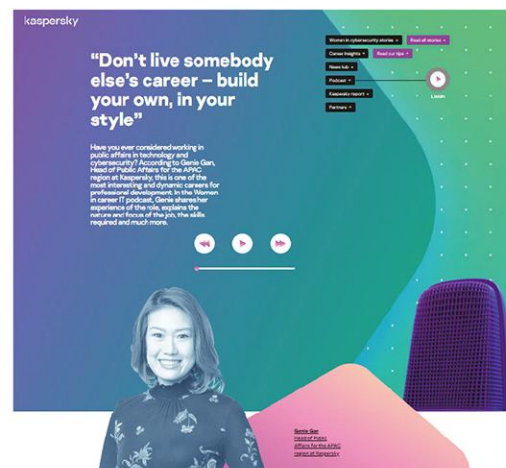
Development of the dedicated website contains inspirational stories of Kaspersky female employees, “career insights” columns providing valuable advices on topics like CV composition, team leadership and starting career in cybersecurity, and other materials. The team also releases special projects (i.e. an interactive cybersecurity career timeline) which include the company's experts answers to common questions girls and women have when it comes to starting or continuing a career in the field. In order to implement this idea, we have conducted a research in our Facebook community and found which topics are the most popular.

### 3. 卡斯基“科技界女性”播客

播客是一个由五部分组成的系列,旨在帮助女性探索网络安全领域的职业道路,无论她们是否有技术背景。每集介绍了一位来自卡斯基亚太团队的嘉宾,探讨网络安全行业的公共事务、威胁研究、人力资源和销售等方面的职业生涯。卡斯基推出这一播客的目的是激励年轻女性开始在科技行业的职业生涯,并借鉴公司女性领导者的经验来指导她们。

#### 3. Kaspersky Women in tech podcast

The ‘Women in Tech’ podcast by Kaspersky is a five-part series that aims to help women explore a career path in cybersecurity, no matter if they have a technical background or not. It was specifically launched for APAC audience: each episode introduces a special guest from Kaspersky’s Asia Pacific team and explores a career in public affairs, threat research, human resources, and sales within the cybersecurity industry. With the launch of the podcast, Kaspersky aims to inspire young women to start a career in IT and guide them drawing on examples of the company’s female leaders.



2021 MENTORSHIP PARTNER

ADVISORY AND KASPERSKY ARE PARTNERING TO PROVIDE MENTORSHIP TO STUDENTS AGED 16-28

ARE YOU A WORKING PROFESSIONAL? JOIN US AS A MENTOR AT: [advisory.sg/working-professionals](https://advisory.sg/working-professionals)

ONE HOUR A MONTH JUNE TO SEPTEMBER 2021

SUPPORTED BY: **kaspersky**

"THE IMPORTANCE OF BUILDING A TALENT PIPELINE TO MEET THE NEEDS OF SINGAPORE'S INCREASINGLY DIGITAL ECONOMY CANNOT BE UNDERSTATED. PARTNERING WITH ADVISORY REPRESENTS KASPERSKY'S LATEST COMMITMENT TO NURTURE THE NEXT GENERATION OF CYBERSECURITY TALENTS."

- JENIE GAN  
HEAD OF PUBLIC AFFAIRS & GOVERNMENT RELATIONS (APAC)  
KASPERSKY

ARE YOU A WORKING PROFESSIONAL? JOIN US AS A MENTOR AT: [advisory.sg/working-professionals](https://advisory.sg/working-professionals)

ONE HOUR A MONTH JUNE TO SEPTEMBER 2021

#### 4. 导师计划(第二阶段)

导师计划(第二阶段)于2021年9月至12月在新加坡举办,这是一个为期4个月的结构化专业导师项目,包括卡斯基专家在内的近430名导师参与了此项目,学生可以与他们选择的行业导师进行匹配,以得到职业方面的指导。

#### 4. The Advisory Mentorship Programme (Wave 2)

The Advisory Mentorship Programme (Wave 2) was organized in Singapore from September to December 2021 and included nearly 430 mentors including Kaspersky experts. It was a four-month structured professional mentorship programme that students were matched with industry mentors of their choice for career guidance.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



IKCEST 丝路培训基地主要成员到访联合国教科文组织总部, 与科学政策与能力建设司长奥斐博阿滕女士(图中左七) 团队交流, 图中右六为 IKCEST 秘书处副秘书长刘畅, 图中右八为 IKCEST 丝路培训基地负责人、西安交通大学副校长郑庆华

Key Members of the IKCEST Silk Road Training Base Visited UNESCO Headquarters, communicating with the Team Led by Madam/Peggy Efua OTI BOATENG (The 7<sup>th</sup> from the left), Director, Division of Science Policy and Capacity Building; Zheng Qinghua, Head of IKCEST Silk Road Training Base and Vice President of Xi'an Jiaotong University (The 8<sup>th</sup> from the right)

## 培养“丝路五通”人才, 推动教育在构建人类命运共同体中发挥更大作用

Training Personnel Targeted at “Five-Pronged Approach”, Empowering Education for the Community of a Shared Future

**申报机构:** 联合国教科文组织国际工程科技知识中心

**Applying Institution:** United Nations Educational, Scientific and Cultural Organization (UNESCO) International Knowledge Centre for Engineering Sciences and Technology

**案例涉及的国家 and 地区:** 巴基斯坦、泰国、哈萨克斯坦、乌兹别克斯坦、俄罗斯等115个国家和地区

**Countries and Regions Covered or Involved in the Implementation:** 115 countries and regions such as Pakistan, Thailand, Kazakhstan, Uzbekistan, Russia



## 国际工程科技知识中心 (IKCEST) 丝路培训基地——推动“一带一路”沿线国家工程科技人才培训的在线教育平台

International Knowledge Centre for Engineering Sciences and Technology (IKCEST) Silk Road Training Base is an online education platform to promote the training of engineering science and technology talents for the countries along the "Belt and Road".

“工程科技是推动人类进步的发动机。”“一带一路”沿线国家处于不同的工业化阶段, 经济发展水平不同, 工程科技人才缺口巨大。急需培养“丝路五通”人才, 共享发展成果, 打造甘苦与共、命运相连的发展共同体。

"Engineering technology is the engine that drives human progress." "The countries along the Belt and Road are at different stages of industrialization, with different levels of economic development and a huge shortage of engineering and scientific talents. There is an urgent need to train personnel targeted at the "Five-Pronged Approach", to share the fruits of development and to create a community of developers.

### 创建了“政府引导、高校主导、企业辅导”的丝路人才培养新模式, 打造“丝路五通”人才培养基地

联合国教科文组织 (UNESCO) 授权中国工程院, 委托西安交通大学于2016年创办联合国教科文组织国际工程科技知识中心 (IKCEST) 丝路培训基地; 发挥多学科资源优势, 组建由院士、长江、杰青及企业工程师构成的优质师资队伍, 开设出能源化工、健康医疗等30个培训专题和743门课程, 采编了“一带一路”国家国情咨文、历史文化、政策法规、工业经济、科技教育、人口环境6大特色数据库820万条文献资源, 并联合华为、百度、中国西安市港务区等企业, 建立了20个校企合作实训基地, 赴泰国、俄罗斯、乌兹别克斯坦、吉尔吉斯斯坦创建4个境外培训基地。

Create a new model of "government-guided, university-led, enterprise-coached" Silk Road talent training, and build a training base for personnel targeted at the "Five-Pronged Approach"

UNESCO authorized the Chinese Academy of Engineering (CAE) to commission Xi'an Jiaotong University to establish the UNESCO International Knowledge Centre for Engineering Sciences and Technology (IKCEST) Silk Road Training Base in 2016. XJTU has taken advantage of its multidisciplinary resources to form a high-quality faculty consisting of academicians, Changjiang scholars, distinguished young scholars, and engineers working in enterprises with 30 training topics and 743 courses set up in energy, chemical engineering, health, and medical treatment. The database contains 8.2 million articles on national affairs, history and culture, policies and regulations, industry and economy, science, technology and education, and population and environment. Moreover, XJTU has joined hands with Huawei, Baidu, Xi'an (China) International Logistics & Trade Park, and other enterprises to establish 20 practical training bases for cooperation between schools and enterprises. The University has set up four overseas training bases in Thailand, Russia, Uzbekistan, and Kyrgyzstan.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



丝路工程科技培训现场照片(部分)

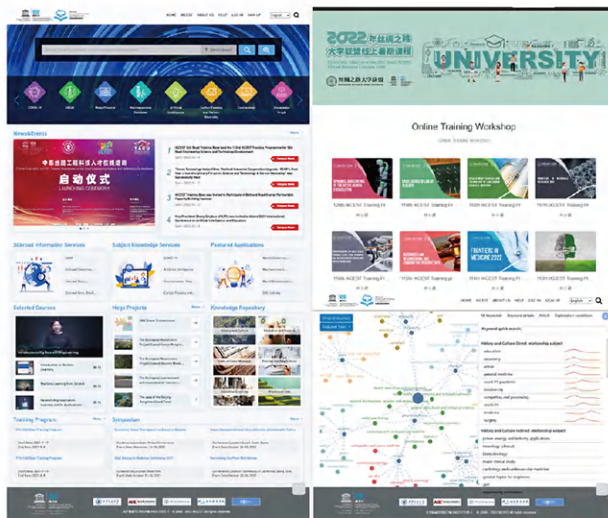
On-site IKCEST Training Programme for Silk Road  
Engineering Science and Technology

## 搭建知识森林导航的在线教育平台,支撑多语言、线上线下规模化培训教学

平台目前支持英俄阿西法意葡汉8种语言,覆盖多数沿线国家官方语言;自主研发的知识森林模型及其构建技术,创建了“资源知识化、知识体系化、画像全息化、导学个性化”网络学习新范式,有效组织资源、精准研判学习过程、评教并导学,从简单初级辅助工具转变为高效便捷的智慧教与学;实现招培考评管全过程在线教育服务。

## Building an online education platform for knowledge forest navigation, supporting large-scale multilingual, online and offline training and teaching

The platform currently supports 8 languages, including English, Russian, Spanish, French, Italian, and Chinese, covering the official languages of most B&R countries. The self-developed knowledge forest model and its construction technology have created a new paradigm of "knowledge-based resources, knowledge systemization, holographic image, and personalized guidance" for e-learning. Effective organization of resources, accurate diagnosis of the learning process, assessment and guidance, transforming from a simple primary aid to an efficient and convenient intelligent teaching and learning process. The platform enables online education services for the whole process of recruitment, training, assessment, and management.



平台部分截图

Platform Screenshot

截至2022年7月,依托平台累计举办121期专项培训班,来自115个国家的2万余名政府官员、境内外大学生与工程师在线注册选学,其中第三世界国家学员占97%,各国媒体分别通过报纸、电视等方式报道,获中国外交部、时任刘延东副总理的肯定。

By July 2022, a total of 121 special training courses were held based on the platform, with more than 20,000 government officials, domestic and foreign university students and engineers from 115 countries registering online for the course of which 97% were participants from third world countries. The media of various countries reported on it through newspapers and television respectively. And the platform was affirmed and praised by the Ministry of Foreign Affairs of China and the then Vice Premier Liu Yandong.



培训结业证书  
Training Certificate

## 促进工程科技知识传播, 国际影响积极广泛

“以赛促教、以赛促学”, 已成功举办3届IKCEST大数据竞赛, 参赛规模持续攀升, 仅2021年, 大赛吸引了全球超过3600+支参赛队、4000+人参赛, 覆盖5大洲22个国家580所高校, 形成全球影响力。

Promoting the dissemination of engineering science and technology knowledge with positive and extensive international influence

"Promoting education and learning by holding competitions", the IKCEST Big Data Competition has been successfully held for 3 times



IKCEST大数据竞赛参赛队分布

IKCEST Big Data Competition Team Distribution

and the number of participants continues to rise. In 2021 alone, the competition attracted over 3,600 teams and more than 4,000 participants worldwide, covering 580 universities in 22 countries on 5 continents and forming a global influence.

与丝绸之路大学联盟合作, 新冠期间开展在线教学。2020至2022年连续三年开设“丝绸之路大学联盟在线暑期课程”专项服务, 为38个国家和地区的154所盟校30000余名学生, 提供了足不出户享受优质国际课程资源的便利。

Collaboration with the Silk Road University Consortium for online teaching during the Covid-19 pandemic. For three consecutive years from 2020 to 2022, the "Silk Road University Consortium Online Summer Programme" offered more than 30,000 students from 154 consortium universities in 38 countries and regions, providing them with stay-home quality international courses.

六年来, 不断探索“一带一路”工程科技人才培养, 打造“丝路工程科技”品牌专业, 持续完善线上线下混合的工程科技人才培养体系, 用实际行动丰富和完善人类命运共同体理念, 回应时代关切。

Over the past 6 years, XJTU has been exploring the ways to cultivate the B&R engineering science and technology talents, building the brand specialty of "Silk Road Engineering Science and Technology", continuously improving the online-and-offline engineering science and technology talents cultivation system, taking concrete actions to enrich and improve the vision of a community with a shared future for mankind, and responding to the concerns of the times.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

陈毅《赠缅甸友人》中“共饮一江水”的缅甸母亲河——伊洛瓦底江

*Irrawaddy -- The mother river of Myanmar, from which the Burmese and Chinese drink, as reads in the poet To Friends from Myanmar.*

# 缅中胞波网络空间共同体

Myanmar-China Paukphaw Community with a Shared Future in Cyberspace

**申报机构:** 缅甸胞波网有限公司

**Applying Institution:** Network Paukphaw Co., Ltd, Myanmar

**案例涉及的国家和地区:** 缅甸、中国

**Countries and Regions Covered or Involved in the Implementation:** Myanmar, China

## 在网络空间共创缅中胞波共同体新的传奇

Co-creating a New Legend of Myanmar-China Paukphaw Community Together in Cyberspace.

缅甸历史经典以神话隐喻缅中同胞血亲, 百年缅汉相亲成就“胞波”传统, 缅中共倡和平共处五项原则缔造两国独有之胞波关系, 共同的生活、共同的命运、共同的责任铸就缅中“胞波共同体”。在网络空间, 缅中命运共同体续写“胞波传奇”。

The blood kinship of Myanmar-Chinese compatriots stems from a metaphor of myth in the Myanmar classic chronicles. The tradition of Paukphaw were originated from centuries of Myanmar-Chinese amity. The one and only Paukphaw relationship between Myanmar and China were founded on the basis of the Five Principles of Peaceful Coexistence advocated by the two countries. The Paukphaw Community has been made from shared life, shared destiny and shared responsibility of Myanmar and China. In cyberspace, Myanmar-China community has opened a new page for the Paukphaw legend.

### 胞波博物馆讲述“胞波”的历史与传奇

在胞波网的倡议、协助下, “胞波博物馆”于2017年11月18日在缅甸曼德勒市开馆。博物馆按缅华共同的生活、共同的命运、共同的责任等主题叙述“胞波”的历史与传奇。“胞波”, 在缅语中意指“血亲同胞”, 为缅人对中国人专用的亲切称呼, 现已成为表示缅中两国友好关系的专用语和符号。在缅甸佛教传说中, 缅中两国是“神圣的同胞”, 数百年来, 缅华两族在缅甸共同生活, 亲密交往, 近现代同呼吸共命运, 一道抗击法西斯, 缅中两国共同倡议和平共处五项原则, 1956年后缅中关系被确立为“胞波关系”。“胞波共同体”是当代缅中关系的最佳写照。

#### Paukphaw Museum Narrating the History and Legends of Paukphaw

With the initiative and assistance of Network Paukphaw, the Paukphaw Museum opened in Mandalay, Myanmar, on Nov. 18<sup>th</sup>, 2017. The museum then began narrating the history and legend of Paukphaw in terms of the shared life, shared destiny, and shared responsibility of the Burmese and Chinese people. Paukphaw, which means compatriots of blood kinship in Burmese language, is an exclusive and kind name by

the Burmese people to the Chinese people and has become an exclusive term and symbol to express the friendship between Myanmar and China. In a legend of Myanmar Buddhism, Myanmar and China are described as sacred compatriots for hundreds of years. The two ethnic groups of Chinese and Burmese have lived together in Myanmar, engaged in close exchanges, shared a common destiny in modern times, and fought together against fascism in modern and contemporary history. Myanmar and China jointly advocated the Five Principles of Peaceful Coexistence, and the China-Myanmar relations were established as Paukphaw Relations after 1956. Paukphaw Community is the best portrait of the contemporary Myanmar-China relationship.

### “胞波网”开启缅中胞波共同体在网络空间的实践



时任中国驻曼总领事王愚携曼德勒各界代表启动胞波网  
Mr. Wang Yu, the then Chinese Consul General to Mandalay  
and other representatives starting Network Paukphaw

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



胞波网执行的缅中净水援助项目

*Myanmar-China Clean Water Aid Project by Network Paukphaw*

“胞波网”于2015年4月7日在缅甸曼德勒市正式上线, 中国驻曼德勒总领事馆、曼德勒缅中友协及高校、商会、社团、媒体代表出席了仪式。时任总领事王愚表示, 胞波网将成为促进中缅传统胞波友谊的桥梁, 曼德勒缅中友协主席吴博敏说, 现代信息技术拉近人民的距离, 胞波网定将促进缅中友好关系, 胞波网宣布, “胞波”是缅中人民缘定的最亲密的关系, 胞波网作为一个正量的分享资讯与的平台, 将承袭胞波情谊, 服务人民间的交流。“胞波网”含公益团队、中/缅文网站和社交媒体平台, 现已推出《入缅指南》手册及《胞波传奇·骠国乐》舞台剧、“理解中国”等系列活动, 完成中缅“净水援助”等公益项目并进行了了媒体推广。

*Network Paukphaw Starting the Performance of Myanmar-China Paukphaw Community in Cyberspace*

Network Paukphaw was officially founded and put into service in Mandalay, Myanmar on April 7th, 2015, when the representatives of the Chinese Consulate General in Mandalay, the Myanmar-China Friendship Association Mandalay, universities, chambers of commerce, associations, and media attended the ceremony. As Mr. Wang Yu, then Consul General to Mandalay said, Network Paukphaw will serve as a bridge to promote the traditional Paukphaw friendship between China and Myanmar. Mr. U Bomyint, chairman of the Myanmar-China Friendship Association Mandalay said that modern IT helps bring the people closer, and Network Paukphaw will definitely help promote Myanmar-China

friendly relationship. Network Paukphaw finally declared that Paukphaw is the closest and eternal relationship of destiny between the Burmese and Chinese people, as a positive platform for sharing information and virtues. Network Paukphaw would carry on the Paukphaw Friendship and serve people-to-people exchanges. It includes a charity team, Chinese-Burmese language websites, and social media platforms, which had the booklet A Guide to Myanmar published, and has launched a series of activities and projects such as The Legend of Paukphaw, Music of Pyu Kindom, Understanding China Dialogue and Myanmar-China Clean Water Assistance, etc. and released them on media.

## 从文化视角讲述缅甸故事与中国故事, 促进人民间相亲

胞波网团队一直在研究并尝试把一些国际热门的理念进行缅甸本土化解读和分享。缅甸人与中国人有着同样的思维: 家中一人富裕了, 总会与兄弟姐妹分享, 一家人幸福了, 定会与邻居分享, 于是家庭和谐, 睦邻友好。

*Telling Myanmar and China Stories from A Cultural Perspective for the Amity between the Peoples*

Network Paukphaw has been working on localizing the interpretation of some of the world's hot concepts and sharing them in Myanmar. The Burmese and Chinese share the same Eastern Mindset: when one in the family becomes rich, he will always share the wealth with his brothers and sisters, and while one family gains happiness, they will certainly share with neighbors. So too the family harmony and good neighborliness.

## 成立国际智库及媒体系统应对当前的缅甸困境

胞波网成立之初即开始组建研究团队(缅中语言与文化研究中心)以服务缅甸及缅中民间关系。2019年以来与中国星火智库合作, 围绕缅甸民生、缅中经济合作、新冠疫情等相关热门话题, 先后发表了系列缅文文章。2021年的

“政变”,加之新冠疫情肆虐,使缅甸的局势与民生问题雪上加霜,胞波网联合星火智库及来自缅甸和国际学者与媒体人,创办了“缅信”智库及媒体(MyanThink, www.myanthink.com),专注缅甸当代文化与认知、和平、民生、能源和对外关系等主题的研究及实践。目前,“缅信”已接收了来自缅甸、中国、韩国及其他东盟国家的成员:学者15人、媒体4家。

### Establishing International Think-tanks and Media System, to Cope with the Present Difficulties of Myanmar

Network Paukphaw began to establish its own research team (Myanmar-China Language & Culture Research Center) just as founded, to serve Myanmar and people-to-people relations between Myanmar and China. In cooperation with the Spark Institute (China) and scholars from Myanmar, Network Paukphaw successively published a series of online papers in the Burmese language since 2019, centering on new and hot topics including livelihood in Myanmar, Myanmar-China economic cooperation, COVID-19 pandemic, etc. The coup taking place in 2021, coupled with the COVID-19 epidemic, has worsened the situation and the people's livelihood in Myanmar. In collaboration with the Spark Institute and relevant Myanmar and international scholars and media, Network Paukphaw initiated and established the think-tank of MyanThink and media (www.myanthink.com), committed to the studies and project practice on the issues of culture and cognition, the people's livelihood, peace, energy and foreign relations of Myanmar. MyanThink by now has accepted 15 research members and 4 media members from Myanmar, China, South Korea, and other ASEAN countries.



研究团队与中国的云南大学合作者召开第一次工作会议  
(2013年1月5日)

*Research team meeting with partners from Yunnan University in China (Mandalay, Jan. 5<sup>th</sup>, 2013)*



研究团队与缅甸仰光远程教育大学开展合作研究  
(2018年8月7日)

*Collaborative research meeting with partners at Yangon Distance Education University (Yangon, Aug. 7<sup>th</sup>, 2018)*

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



2019年中国—东盟(南宁)戏剧周大联欢

2019 China-ASEAN (Nanning) Theatre Week Gala

## 中国—东盟戏剧网络平台

China-ASEAN Theater Online Platform

**申报机构:** 南宁市民族文化艺术研究院

**Applying Institution:** Nanning Folk Culture and Art Research Institute

**案例涉及的国家 and 地区:** 马来西亚、印度尼西亚、泰国、菲律宾、新加坡等10个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

10 countries and regions such as Malaysia, Indonesia, Thailand, Philippines, Singapore



## 中国—东盟戏剧网络平台是依托中国—东盟(南宁)戏剧周建立的集展示、交流、互动于一体的戏剧平台。

The China-ASEAN Theater Online Platform built on the China-ASEAN (Nanning) Theater Week is a platform for theater display, exchange, and interaction.

中国—东盟(南宁)戏剧周是广西南宁市重点打造的面向东盟的外向型文化交流品牌,2013年以来,每年举办一届。九年来,共有272个文化机构、艺术院团参与,其中,有98个来自东盟国家。戏剧周共演出263场,开展戏剧工作坊96场、专题研讨18场,及剧评会、微电影展览、艺术展览、粤剧大赛等活动,900多万人参与。2021年,搭建中国—东盟戏剧网络平台,戏剧文化交流转为全线上模式。

The China-ASEAN (Nanning) Theater Week, first held in 2013, is a key brand event launched annually by Nanning, Guangxi to spread Chinese culture to ASEAN. Over the past nine years, it has attracted 272 cultural organizations and art troupes, among which 98 were from the ASEAN countries. Moreover, many concurrent activities have been held, including 263 shows, 96 theater workshops, 18 seminars, dramatic criticism meetings, micro-film exhibitions, art exhibitions, and Cantonese opera contests, attracting the participation of more than 9 million people. In 2021, a network broadcasting platform for China-ASEAN theater was built, moving theater cultural exchanges online.

## 创新模式, 拓宽中国与东盟人文交流的空间

中国—东盟戏剧网络平台采用“4+1”模式展开活动,即由“演(演出)、研(研讨)、展(展览)、赛(竞赛)+大联欢”构成。邀请了东南亚各国的戏剧艺术家参与到活动中。中国昆曲、藏戏、粤剧与泰国孔剧、柬埔寨皇家舞剧、马来西亚的玛雍戏等世界级非物质文化遗产项目实现同台展演,将戏剧观摩研究的目光从向西到向东转移,这在中国乃至东方戏剧文化交流史上都有积极的意义。



2014年,中国—东盟(南宁)戏剧周期间,中国、印度尼西亚、马来西亚、菲律宾艺术家联合演出《罗摩衍那》

During the 2014 China-ASEAN (Nanning) Theatre Week, the play *Ramayana* was performed by actresses and actors from China, Indonesia, Malaysia, and the Philippines.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

Innovative patterns have been created to extend boundaries for people-to-people and cultural exchanges between China and ASEAN.

The China-ASEAN Theater Online Platform employs the "4+1" pattern—performance, seminar, exhibition, contest, plus festival—to launch various activities. This platform has invited theater artists from Southeast Asia and witnessed the debut of many theatrical genres in China. The world intangible cultural heritage (ICH) items such as China's Kunqu opera, Tibetan opera, and Cantonese opera, Thailand's Khon, Cambodia's Royal Ballet, and Malaysia's Mak Yong have been performed on the same stage, turning China's attention from the West to the East in studying theatrical genres and shifting its eyes on neighboring countries in this regard, which has had a positive impact on the history of theatrical cultural exchanges of China and the East.

## 平台建设, 实现国际文化交流常态化

中国—东盟戏剧网络平台搭建, 打造了中国与东盟“永不落幕”的文化交流平台, 实现了中国与东盟戏剧、工艺美术、艺术教育、非遗传承等活动的常态互动与交流。发起建立的“中国—东盟戏剧交流合作机制”和“中国—东盟非物质文化遗产保护合作交流机制”两大合作交流机制, 使中国与东盟在文化艺术的互通互鉴, 交流合作得到长效化的保障。

The platform has been built to achieve regular international cultural exchanges

The China-ASEAN Theater Online Platform has been built into a platform for everlasting China-ASEAN cultural exchanges, enabling regular interaction and exchanges between China and ASEAN in theater, arts and crafts, art education, and ICH inheritance. The two cooperation and exchange mechanisms, i.e., China-ASEAN Theater Exchange and Cooperation and China-ASEAN Cooperation & Exchange on Intangible Cultural Heritage Conservation, have been launched and established, ensuring regularized and normalized exchanges and communication in the areas of cultural arts between China and ASEAN.



中国—东盟戏剧交流合作机制

China-ASEAN Theater Exchange and Cooperation Mechanism



中国—东盟(南宁)戏剧周非物质文化遗产展览

The Intangible Cultural Heritage Exhibition during the  
China-ASEAN (Nanning) Theatre Week

## 推动中华文化的海外交流

中国—东盟戏剧网络平台以戏剧为主体, 集中展示了中国昆曲、粤剧、藏戏、京剧等一批世界级非物质文化遗产, 以及壮族刺绣、绣球制作、壮族织锦、南宁红陶、壮族服饰等一大批优秀传统文化, 世界各地的艺术家线上开展交流互动, 观众突破物理空间, 共享中国与东盟优秀文化, 为中华优秀传统文化的传承传播搭建了广大的平台。仅2021年戏剧周期间, 参演剧目豫剧《马丕瑶出京》单场点击量达114万。

### The platform has promoted overseas exchanges for Chinese cultures

The China-ASEAN Theater Online Platform, with theater art as its mainstay, focuses on a number of world-class intangible cultural heritages such as Chinese Kunqu, Cantonese opera, Tibetan opera, and Beijing opera, as well as a large number of outstanding traditional cultures such as Zhuang embroidery, embroidery ball making, Zhuang brocade, Nanning red pottery and Zhuang costumes. Artists from various parts of the world conduct exchanges and interactions online, enabling the audience to share the outstanding cultures of China and ASEAN without geographical restriction, which has built a vast stage for the inheritance and communication of outstanding Chinese traditional cultures. During the 2021 Theater Week alone, a single performance of the participating Yu opera, "Ma Piyao Takes on the Mission Beyond the Capital", got 1.14 million hits.



中国—东盟(南宁)戏剧周优秀剧目展演——豫剧《马丕瑶出京》  
Performance of Outstanding Program during the China-ASEAN (Nanning) Theatre Week: Yu Opera *Ma Piyao Takes on the Mission Beyond the Capital*

### 推动海上丝绸之路的经济发展

中国与东盟地缘相近, 山水相连, 自古以来人文经济交往频繁, 中国与东盟各国的艺术形式相互影响较深, 如越南的侬剧。中国—东盟戏剧网络平台的搭建, 对中国与东盟民心沟通, 双方保持密切往来, 建立互信互惠的合作关系具有深远意义, 对促进海上丝绸之路的经济发展具有重要价值。

### The platform has promoted economic development along the Maritime Silk Road

China and ASEAN are geographically close to each other and connected by mountains and waters. We have had frequent cultural and economic exchanges since ancient times. The art forms of China and ASEAN countries have extensive interplay with each other. The Tuong Opera (Vietnamese opera), for example, shows similar cultural traditions between China and ASEAN. The China-ASEAN Theater Online Platform is of far-reaching significance to people-to-people exchanges between China and ASEAN, close ties between the two sides, and cooperative relationships of mutual trust and mutual benefit. It is also of great value in promoting economic development along the Maritime Silk Road.



越南国家侬剧院演出侬剧《传奇的榕树下》  
*Under the Legendary Banyan Tree performed at the National Tuong Opera Theatre of Vietnam*

文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



全球华人  
“Daily Life of Global Chinese”  
生活短视频  
Short Video Competition  
大赛

## 全球华人生活短视频大赛

“Daily Life of Global Chinese” Short Video Competition

申报机构: 海外网传媒有限公司

**Applying Institution:** Haiwainet Media Co., Ltd.

案例涉及的国家 and 地区: 加拿大、澳大利亚、美国、法国、日本等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as Canada, Australia, United States, France, Japan

## 搭建国际交流平台, 生动呈现多彩中国。

Building a platform for international communication, vividly depicting a colorful China.

“全球华人生活短视频大赛”由人民日报海外网主办, 面向全球网友以短视频形式讲述中国故事。大赛自2019年以来已举办三届, 共有40多个国家、地区参与, 投稿作品32万件, 总访问量50亿+, 是讲述中国故事的重要国际交流平台。

“Daily Life of Global Chinese” Short Competition, hosted by Haiwainet -the official website of People’s Daily Overseas Edition- is open to global netizens who are passionate about telling Chinese stories in short videos. The competition has been held three times since 2019 and received 320,000 submissions and a total of over 5 billion views from more than 40 countries or regions. It has become an important platform for international exchange in Chinese storytelling.

## 创新赛事运营, 汇聚全球海量优质短视频作品

“全球华人生活短视频大赛”依托人民日报全媒体传播方阵, 与地方主流媒体、视频平台、海外华文媒体合作, 多平台贯通, 最大范围拓宽作品征集来源。大赛以海客视频客户端为主赛区, 开设澳大利亚、日本、美国、加拿大、法国5个国际赛区, 百家号、快手海外、360快资讯·快传号、梨视频、视觉中国5个中国分赛区。共征集稿件32万件, 综合阅读量突破50亿。目前, 以“奋斗的你”为主题的第四届全球华人生活短视频大赛征集已于2022年7月下旬启动。

## Creatively organizing competitions and collecting excellent short videos from across the globe

“Daily Life of Global Chinese” Short Video Competition, supported by the People’s Daily all-media communications platform, collaborates with local mainstream media, short video platforms, and overseas Chinese media through multiple platforms in order to maximize the sources of collections. The competition takes the Haike Video APP as the main arena with 5 international arenas (in Australia, Japan, the US, Canada, and France), 5 Chinese sub-arenas (in Baijiahao,

Kwai Content Operation Overseas sag, 360 Fast News ·kuaiquanhao, Pear Video, and Visual China Group). A total of 320,000 submissions have been received and the overall reading volume has exceeded 5 billion times. The 4th “Daily Life of Global Chinese” Short Video Competition with a theme of “the Hardworking You” has been officially launched in late July.



海外华文媒体落地

Cooperation with overseas Chinese media

08 网络时代

人民日报

首届“全球华人生活短视频大赛”圆满落幕,总浏览量突破10亿人次

小镜头里的大世界



08 网络世界

人民日报

第二届全球华人生活短视频大赛圆满落幕

“我的2020” 光影捕捉不平凡瞬间



08 网络世界

人民日报

第三届全球华人生活短视频大赛“圆满落幕”

“我要向世界介绍中国的美丽乡村”



人民日报海外版报纸文章  
People's Daily Overseas  
edition newspaper article

全球视角记录多彩中国

“全球华人生活短视频大赛”前三届主题分别是“你好,中国”“我的2020”“新时代·新农村”,着重展示国际友人眼中新时代中国的发展变化,让国际受众更好地看懂中国。在第三届大赛获奖作品中,《扶贫路上的“慢火车”》创作者英国小哥司徒建国说:“很多人都知道中国高铁,但不知道中国还有票价便宜的‘小慢车’。”《荒野农村变绿洲》创作者意大利博主瑞丽说:“看到中国荒野乡村变绿洲的奇迹,想把中国人的努力记录下来。”他们用生动的镜头语言记录了中国在经济、科技、民生、扶贫等诸多领域的成就,把真实、立体的中国介绍给世界。

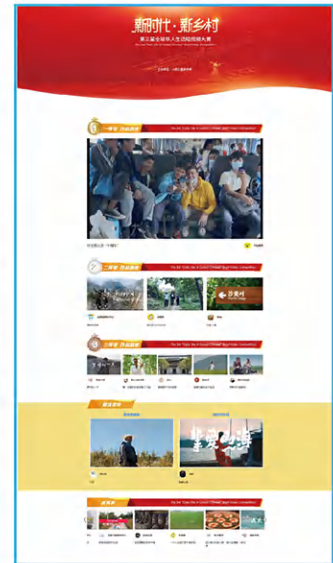
Capture the colorful China from a global perspective

The themes of the first three “Daily Life of Global Chinese” Short Video Competitions are “Hello, China” “My 2020” and “New Era, New Village” respectively, depicting the development of a new China in the eyes of the people across the globe, and fostering a better understanding of China among a global audience. In one of the warding winning video from the 3rd competition, Situ Jianguo, creator of “The Slow Train on the Road to Poverty Alleviation” says: “Many people know about China’s high-speed railway, but have no idea about the little slow trains with cheap fares in China.” Italian blogger Rachele Longhi, creator of “From Countryside to Oasis” says: “Seeing the miracle of China’s wild countryside becoming an oasis makes me want to record the efforts of the Chinese people.” They record China’s achievements in economy, technology, livelihood and poverty alleviation with vivid camera language, and introduce a true, multidimensional China to the world.



英国博主司徒建国获得“第三届全球  
华人生活短视频大赛”一等奖

British blogger Situ Jianguo was awarded with the first prize of  
the 3rd “Daily Life of Global Chinese” Short Video Competition



“第三届全球华人生活短视频大赛”  
部分获奖作品

Some award-winning videos  
from the 3rd “Daily Life of  
Global Chinese” Short Video  
Competition

## 深耕全球拍客资源, 多层次培育内容生态

2019年12月, 在首届“全球华人生活短视频大赛”颁奖典礼上, 海外网正式发起成立“海客视觉联盟”, 面向全球招募摄影爱好者, 逐步搭建“UGC+PGC+OGC”的视频内容生产体系, 汇聚一批热爱中国的拍客。截至目前, 海客视频客户端吸引近2万名拍客入驻。海外网深挖入驻拍客内容生产潜力, 推动“海客视觉联盟”与短视频大赛双向赋能, 培育和丰富移动传播内容生态, 以优质视频内容吸引更多受众。

### Deeply cultivating global blogger resources, multidimensionally fostering a content ecology

In December 2019, at the awarding ceremony of the first “Daily Life of Global Chinese” Short Video Competition, Haiwainet officially launched Haike Visual Alliance to recruit video-making enthusiasts from across the globe and gradually build a “UGC+PGC+OGC” visual content production system to bring together a group of video producers who love China. Up to now, Haike Video App has attracted nearly 20,000 video producers. Haiwainet deeply explores the productive potential of video producers, promotes a two-way empowerment between Haike Visual Alliance and the short video competition. Besides, it cultivates and enriches the content of ecology of mobile communications and attracts more users with high-quality video content.

海外网以大赛为基础, 积极向上下游延伸, 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, 释放大赛更深层次的传播价值。

With the competition as its foundation, Haiwainet actively extends upstream and downstream endeavors to complete the chain from event planning and video collecting to awarding, screening, and promoting with an aim to enlarge the communication radius, prolong the communication cycle, and excavate the deeper communication value of the competition.



“海客视觉联盟”部分成员在首届全球华人生活短视频大赛颁奖盛典现场合影

*Photo of Haike Visual Alliance members at the awarding ceremony of the 1st “Daily Life of Global Chinese” Short Video Competition*



意大利视频博主瑞丽在“第二届华人生活短视频大赛颁奖盛典”外场接受采访

*Italian blogger Rachele Longhi being interviewed at the awarding ceremony of the 2nd “Daily Life of Global Chinese” Short Video Competition*

文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

# 云上动漫游戏 产业交易会

2020.4.28-5.5

CLOUD ACG  
INDUSTRY TRADE FAIR



## “云上国漫”

### ——疫情之下的动漫节展转型

Changes in China International Cartoon  
& Animation Festival Against the Pandemic

申报机构:

杭州市文化创意产业发展中心  
(杭州市动漫游戏产业发展中心)

Applying Institution:

Hangzhou Cultural & Creative Industry Development Center (Hangzhou ACG Industry Development Center)

案例涉及的国家 and 地区:

美国、英国、法国、俄罗斯、意大利等40个国家和地区

Countries and Regions Covered or Involved in the Implementation:

40 countries and regions such as United States, United Kingdom, France, Russia, Italy



## “云上国漫”——疫情之下的动漫节展转型

Changes in China International Cartoon & Animation Festival against the Pandemic

2020年起, 疫情影响全球, 线下办展困难, 企业仍有需求, 中国国际动漫节顺势而为, 推出云上平台, 通过线上展示、在线洽谈、直播互动等举办线上会展活动, 参与的国家和地区超过40个。

The outbreak and spread of COVID-19 since 2020 has affected the entire world, making real exhibitions almost impossible in practice. To cater to demanding enterprises, the “CICAF Go-Global Online” campaign, a virtual show event covering 40 plus countries and regions with online exhibitions, video talks, and live streaming sessions, therefore came onto the stage.

### 疫情阻隔, 交易不断, 推出“云上动漫游戏产业交易会”

受疫情影响, 针对国际市场不能线下交易的现状, 2020年起, 中国国际动漫节连续两年在线举办“云上动漫游戏产业交易会”, 依托国际动漫游戏商务大会(iABC)平台, 推出在线“一对一”商务洽谈、国际专场等服务, 有来自俄罗斯、法国等46个国家和地区以及世界动画协会、法国戛纳电视节等20个国际动画节展、境外动漫机构在线参与。知名动画《托马斯小火车》编剧卫丹(Dan Wicksman)先生通过网络表达了与中国交流合作的愿望; 莫斯科世界内容市场交易展代表、国际动画协会代表等业界人士都为本次交易会点赞。交易会共吸引46个国家和地区的5981位商务人士参与, 洽谈合作意向成交金额超过1亿元。

Despite the COVID-19, the Cloud ACG Industry Trade Fair has remained a place to make deals

Given that the spreading pandemic has suspended all show events and exhibitions worldwide, the Cloud ACG Industry Trade Fair has been staged as a CICAF solution for two years since 2020. By using iABC as the theater, the Fair provided “one-on-one” negotiations, international networking events, and other services for companies from 46 countries and regions (Russia, France, etc.) and 20 worldwide animation festivals and agencies (ASIFA, TV Festival de Cannes, etc.). Dan Wicksman, the screenwriter of Thomas & Friends, expressed his wish to work with Chinese film artists through the virtual meeting. Specialists from the animation community, like representatives of World Content Market Moscow Spring and of ASIFA, gave a thumbs-up to the Fair. The event, with a total of 5,981 pro visitors from 46 countries and regions, has registered a sum of desired sales volume exceeding 100 million RMB yuan.



云上动漫游戏产业交易会-动画《托马斯小火车》编剧卫丹(Dan Wicksman)在线交流

Dan Wicksman, the Screenwriter of Thomas & Friends, Communicated Online at the Cloud ACG Industry Trade Fair



云上动漫游戏产业交易会-线上一对一洽谈

“one-on-one” Negotiations Launched at the Cloud ACG Industry Trade Fair

## 适时推动展会转型升级,积极打造“云上国漫”平台

为适应新时代展会行业的变革和疫情当下的市场需求,动漫节展在危机中育先机,于变局中主动开新局,推出中国国际动漫节“云上国漫”平台,包括云上谈商务、网上看直播、3DVR博览会等。针对展商和买家无法到现场参会参展的困难,推出跨时空线上洽谈和展示;针对Z时代的观众,用VR、AR等技术增强云上展会体验感,服务更多漫迷和观众。2021年,“云上国漫”平台吸引美国、英国等47个国家和地区的专业观众参与线上一对一洽谈。迪士尼原创节目策划高级副总裁乔·达布罗西亚(Joe D'AMBROSIA)先生通过视频连线方式参与了高峰论坛大师班。“云上国漫”平台的网上话题浏览量超过3.3亿人次,线上互动的人数超1300万人次。

The “CICAF Go-Global Online” campaign was launched for proactive changes and updates in exhibition business

To adapt to the reform in today's exhibition events and the actual market against COVID-19, “CICAF Go-Global Online” was rolled out as a chance to get out of tight corners, covering “Cloud Business Talks,” “Online Display,” “Live Streaming” and “3DVR Expo”, etc. For exhibitors and buyers barred from attending the events, business talks and shows in a virtual space became the preference. For the growing population of anime fans, especially Gen Z, advanced technologies, like VR and AR, were used to excite them in such cloud-based shows. The “CICAF Go-Global Online” in 2021 invited professionals from 47 countries and regions, including the US and UK, to join “one-on-one” virtual meetings. Joe D'ambrosia, Disney's senior VP of Original Programming, addressed the on-webinar Master Class. The topic views of the event have won over 330 million clicks and comments from over 13 million fans.

## 举办夏纳电视节中国(杭州)国际电视内容高峰论坛(简称MIP China),助力中外影视机构合作交易

受疫情影响,自2020年起,MIP China由线下改为线上线下结合的方式,打造“云端”影视国际服务贸易平台,实现“线上线下一成功办展”。《功夫熊猫》导演约翰·史蒂文森(John Stevenson)、《超级飞侠》制作人乔希·塞利格(Josh Selig)等嘉宾通过视频方式线上演讲,探索频道亚太区内容制作开发副总裁魏克然(Vikram Channa)等嘉宾在线下演讲,与参会者分享成功案例。依托云端平台,通过预约制会议的方式,华策影视、中南卡通等企业与华纳、奈飞等多家国际公司达成了合作意向,意向金额超8200万美元,有效扩大了杭州的城市知名度和影响力。

### MIP China helps find global partners

Because of the pandemic, MIP China started to take a click-and-mortar approach in 2020, making itself a “cloud” center for international film and television transactions and show event planning. John Stevenson, director of Kung Fu Panda, and Josh Selig, producer of Super Flying Man, addressed the webinar. At the same time, Vikram Channa, Discovery Networks VP and Head of Content & Products for the Asia Pacific Region attended MIP China himself with a presentation. Through appointment-based meetings, the cloud system also provided chances for Chinese



夏纳电视节中国(杭州)国际电视内容高峰论坛-线上洽谈

On-line negotiation at MIP China

producers, like Huace Film & TV and Zoland, to reach an agreement worth 82 million US dollars for future cooperation with Warner Bros and Netflix. It has proved a great success that the platform helps expand the host city's global influence.

## 积极参与国际线上展, 提升影响力

为加强中国动漫与国际文化的交流, 中国国际动漫节连续两年在线参展法国昂纳西动画节、莫斯科春季世界内容市场等国际节展, 向国际动画业界和与会者宣传推广广节展内容, 并重点宣传推介“金猴奖”大赛、国际动漫游戏商务大会 (iABC) 等品牌活动, 有效提升中国国际动漫节的国际影响力。

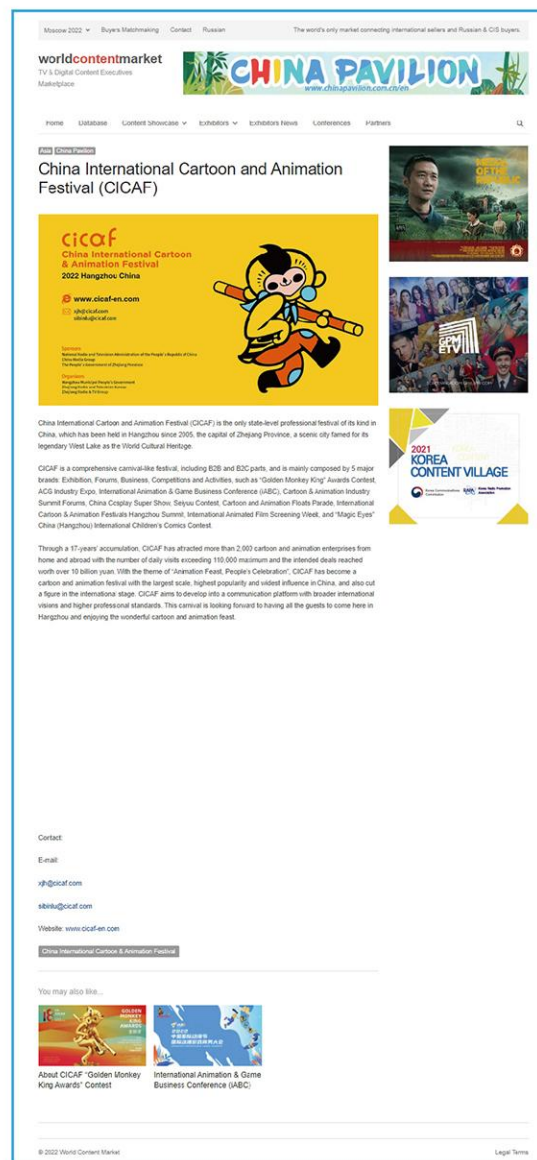
## Further efforts were made to join global virtual exhibitions

To facilitate exchanges between China's anime works and those from worldwide, CICAf has, for the last two years, virtually participated in prestigious international show events, such as French Ancecy International Animation Film Festival and World Content Market Moscow, to advertise Chinese shows and latest films and television creations. CICAf introduced its events to the anime community, emphasizing signature events like the “Golden Monkey Award” and iABC. It has also effectively improved CICAf's worldwide popularity.



中国国际动漫节参加法国昂纳西动画节线上展

*CICAf participated in the online exhibition of French Ancecy International Animation Film Festival*



中国国际动漫节参加莫斯科春季世界内容市场线上展

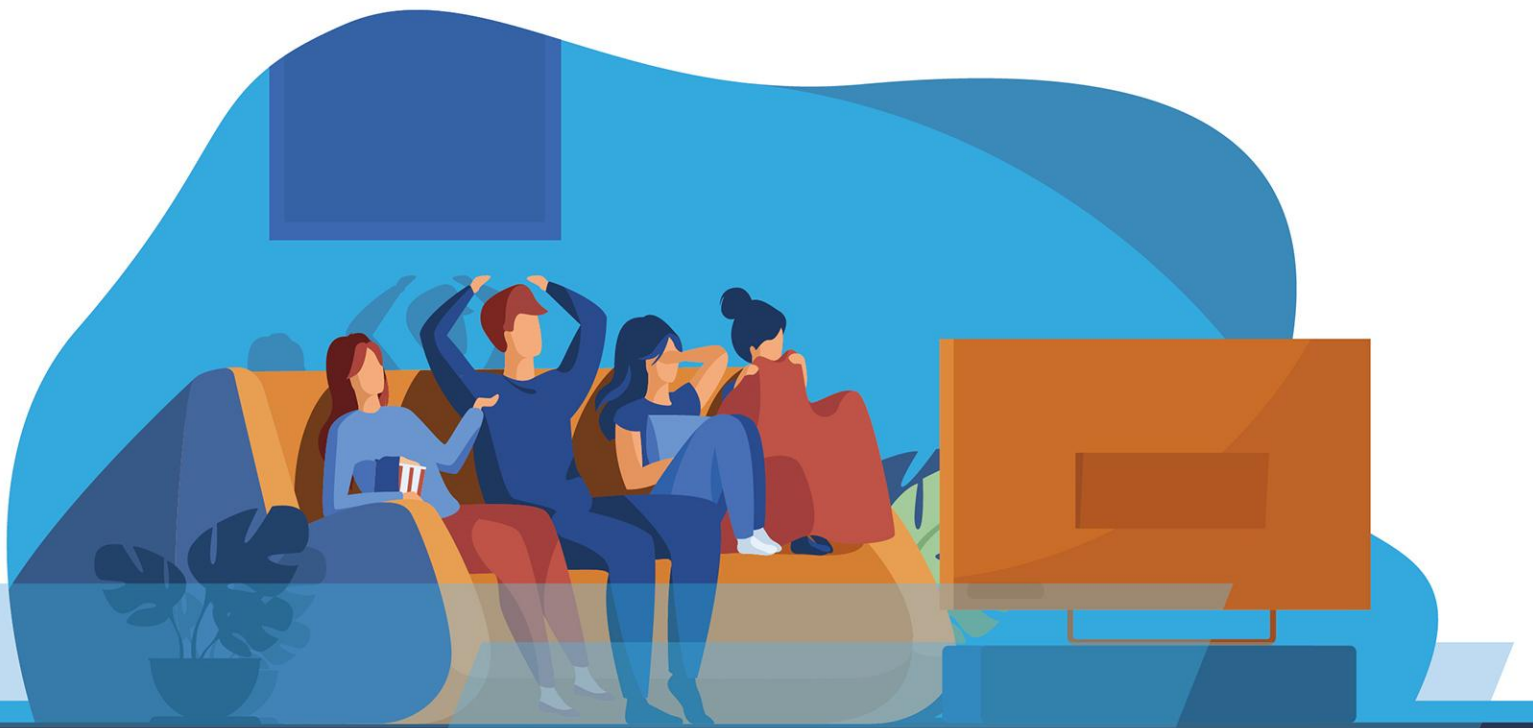
*CICAf participated in the online exhibition of World Content Market Moscow*

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



## 建好“华剧场” 讲好中国故事

Build a "Hua Theater" to Tell Chinese Stories

申报机构: 浙江华策影视股份有限公司

Applying Institution: Huace Group

案例涉及国家和地区: 美国、加拿大、越南、印度尼西亚、俄罗斯、墨西哥

Countries and Regions Covered or Involved in the Implementation:

United States, Canada, Vietnam, Indonesia, Russia, Mexico

## 以影视为核、以全球新媒体为翼, 讲好中国故事, 展现真实、立体、多彩的中国, 是数字经济时代加快构建中国话语和中国叙事体系建设的重要内容。

Taking film and television as the core and global new media as the wings, telling Chinese stories well and showing a real, three-dimensional and colorful China is an important part of accelerating the construction of Chinese discourse and Chinese narrative system in the digital economy era.

随着全球一体化发展和中国国家地位提升, 世界各国日渐关注中国发展, 渴望了解中国现状, 对中国影视节目的需求也逐步旺盛。优秀影视作品能够跨越不同文化和语言, 走进各国观众内心, 帮助他们了解中国、爱上中国。

With the development of global integration and the improvement of China's national status, countries around the world are increasingly concerned about China's development. Excellent film and television works can cross different cultures and languages, enter the hearts of audiences in various countries, and help them understand and fall in love with China.

### 以影视为核, 讲好中国故事

华策影视凭借30多年的国际影视市场开拓先发优势, 率先创新国际传播方式, 以海外新媒体自主运营平台为抓手, 与全球最大视频平台YouTube、全球最大流媒体平台Netflix、全球最大社交平台Facebook等10多家海外新媒体合作, 创建覆盖全球特别是“一带一路”沿线国家和地区的中国影视剧国际传播宣发矩阵“华剧场”, 传播优秀中华文化, 提升国际传播通力。

#### Expand the Platform's Service Horizon and Contribute to the Global Scientific Research

With more than 30 years of first-mover advantage in international film and television market development, Huace Film and Television takes the lead in innovating international communication methods. Taking the independent operation platform of overseas new media as the starting point, it cooperates with the world's largest video platform YouTube, the world's largest streaming media platform Netflix, and the world's largest social platform. Facebook and other more than 10 overseas new media have cooperated to create "Hua Theater", an international communication and publicity matrix for Chinese film and television dramas covering the

world, especially countries and regions along the "Belt and Road", to spread excellent Chinese culture and enhance international communication.



## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台,促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

## 海外新媒体“华剧场”受到全球1100多万人订阅用户喜爱

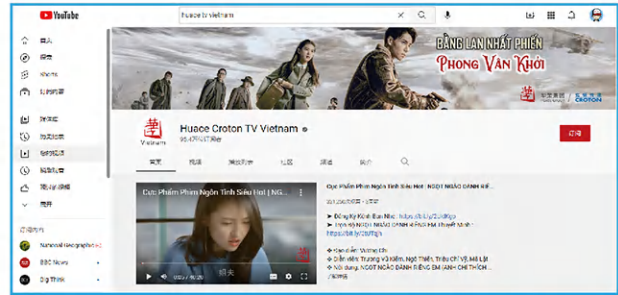
华策影视已建成50多个海外新媒体“华剧场”,积累订阅用户1100多万人,覆盖国家和地区达200多个。在YouTube平台建有20多个频道,包括10多个小语种频道,其中越南语频道订阅用户最多达92.7万,累计上线《外交风云》《创业时代》《下一站是幸福》《有翡》《三生三世十里桃花》等100部剧。

### Overseas new media "Hua Theater" has accumulated subscribers over 11 million

Huace Film and Television has built more than 50 overseas new media "Hua Theater", accumulating more than 11 million subscribers, covering more than 200 countries and regions. There are more than 20 channels on the YouTube platform, including more than 10 small language channels, of which the Vietnamese channel has up to 927,000 subscribers. Fei", "Three Lives Three Worlds Ten Miles of Peach Blossoms" and other 100 dramas.

电视剧《外交风云》以英语、俄语、西语、阿语、印尼语等多语种版本在YouTube平台播放,收获多个国家和地区观众良好反响。其中俄罗斯网友Tmara britikovskaja留言说:“意想不到的主题”“期待《外交风云》第二季播出”。阿拉伯国家和地区观众纷纷留言催更,网友Moatez Mizou留言:“快上新片,真希望能持续更新!”

The TV series "Diplomacy" was broadcast on YouTube in English, Russian, Spanish, Arabic, Indonesian and other multilingual versions, and received good response from audiences in many countries and regions. Among them, Russian netizen Tmara britikovskaja left a message saying: "Unexpected theme", "Looking forward to the second season of "Diplomacy". Audiences in Arab countries and regions have left messages urging updates. Netizen Moatez Mizou left a message: "The new film is coming soon, I really hope it will continue to be updated!"



Youtube平台华策越南语频道,至2022年6月订阅人数达92.7万人。  
The YouTube platform Huace Vietnamese channel has 927,000 subscribers by June 2022.



Youtube平台华策俄罗斯语频道网友观看《外交风云》留言

Online viewers left messages under the TV series "Diplomacy" in YouTube platform Huace Russian channel



Youtube平台华策阿拉伯语频道网友观看《外交风云》留言

Online viewers left messages under the TV series "Diplomacy" in YouTube platform Huace Arabic channel

## 华策Youtube西班牙语频道获墨西哥主流媒体点赞

YouTube华策西班牙语频道运营半年就收获订阅人数12万, 赢得墨西哥本地主流媒体《墨西哥先驱报》(EL HERALDO DE MÉXICO) 的官方网站关注, 发表《6部华语剧被译为西班牙语在Youtube平台热播》的报道, 该报刊向墨西哥观众推荐全球最大的新媒体平台Youtube上6部中国电视剧, 其中4部来自华策影视Youtube西语频道。其中获《墨西哥先驱报》点赞的四部影视作品, 目前总观看次数已近400万, 《拾光里的我们》《我和我们在一起》均收获百万级观看量。频道订阅用户纷纷点赞: “非常感谢华策带来这些西班牙语译制后的精彩内容” “我很高兴在西语频道看到我的偶像” “这些剧集非常好看, 我的朋友们也很喜欢” .....

### YouTube Huace Spanish Channel won attention from Mexican local mainstream media

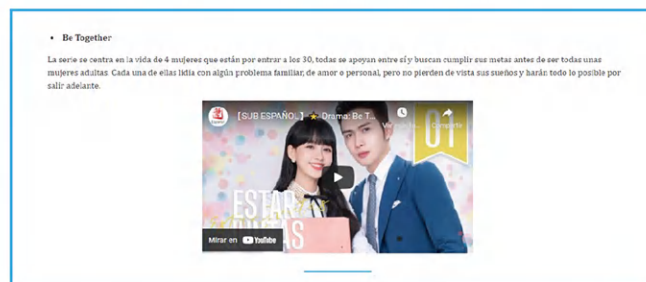
YouTube Huace Spanish Channel has received 120,000 subscribers within half a year of operation, and won the attention of the official website of the Mexican local mainstream media "EL HERALDO DE MÉXICO", and published "6 Chinese dramas translated into Spanish on YouTube platform" "Hit Broadcast" reported that the newspaper recommended 6 Chinese TV series on Youtube, the world's largest new media platform, to Mexican audiences, 4 of which were from Huace TV Youtube Spanish channel.

Among them, the four films and TV works that have been praised by the "Mexican Herald" have a total of nearly 4 million views, and "We in the Light" and "I am with us" have each received millions of views. Channel subscribers praised one after another: "Thank you Huace for bringing these wonderful content translated into Spanish" "I'm very happy to see my idol on the Spanish channel" "These episodes are very nice, and so are my friends. like" .....



墨西哥本地主流媒体《墨西哥先驱报》(EL HERALDO DE MÉXICO) 官方网站刊登《6部华语剧被译为西班牙语在Youtube平台热播》的报道

*The official website of the Mexican local mainstream media "EL HERALDO DE MÉXICO" published "6 Chinese dramas translated into Spanish on YouTube platform"*



电视剧《我和我们在一起》在Youtube平台华策频道播放页面  
*TV series "I am with us" on YouTube Huace channel*

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



## 中国旅游课程

### China Travel Course

**申报机构:** 中华人民共和国文化和旅游部国际交流与合作局

**Applying Institution:** Bureau of International Exchange and Cooperation,  
Ministry of Culture and Tourism of the People's Republic of China

**案例涉及的国家 and 地区:** 法国、德国、英国、意大利等100个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**  
100 countries and regions such as France, Germany, United Kingdom, Italy



## 中国旅游目的地数字推广平台 Digital Marketing Platform for China Tourism

自2020年新冠肺炎疫情爆发以来,全球旅游业遭受重创,中外旅游企业合作受阻。为了密切中外旅游业界的联系,助力疫后旅游业复苏发展,文化和旅游部国际交流与合作局于2021年底建成“中国旅游课程”(https://course.chinaculture.org)多语种在线学习平台。

Since the COVID-19 pandemic started in 2020, tourism across the world has been hit hard, and the cooperation between tourism companies in China and beyond has been hindered. To strengthen the ties between the tourism industry in China and the world and to help recover post-pandemic tourism, the Bureau of International Exchange and Cooperation of the Ministry of Culture and Tourism built a multilingual online learning platform “China Travel Course” (https://course.chinaculture.org) by the end of 2021.

### 课程内容丰富结构清晰 用户学习体验好

“中国旅游课程”首先从“为什么中国是值得多次前往的旅游目的地?”这一问题娓娓道来,给出不容错过中国的八大理由,进而循序展开多条经典线路模块,包括“四川,不只是熊猫故乡”“丝绸之路传奇”“少林功夫体验之旅”“江南文化体验之旅”“中国博物馆奇妙之旅”“黄河上游 生态之旅”等。外国旅行商学习后可以对经典线路模块自由组合,打造符合客户需求的个性化产品。对游客来说,课程内容也是来中国旅行的向导和实用攻略。课程内容求“新”务“实”,包括新玩法新体验、网红打卡地、实用旅行指南、旅游企业推介等。课程形式丰富多样,通过精美的图片、短视频、外国专家授课、360°全景图像等呈现形式,为用户提供了愉快的学习体验。

### Well-structured Quality Course for Good Learning Experience

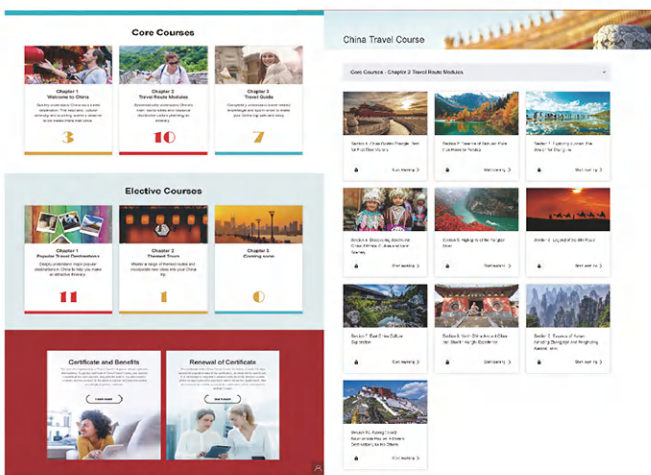
The Course starts with the question “Why does China deserve multiple visits?” and gives eight reasons to visit China. Moreover, the Course introduces many classic itineraries, including “Essence of Sichuan, more than Home to Pandas”, “Legend of the Silk Road”, “Shaolin Kungfu Experience”, “Cultural Experience Tour in Jiangnan”, “A Journey Through China’s Unmissable Museums”, “Yellow River Upstream: A Journey Through Nature”, and so on. With this Course in their toolkit, travel agencies can flexibly combine these itineraries to deliver customized services that meet clients’ needs. For tourists, this Course provides practical guides for traveling around China. This innovative and useful course brings a brand new experience to them with popular destinations, practical travel guides, and introductions to tourism companies. Its abundant content, composed of stunning pictures and short videos, teaching from qualified experts, and 360° panoramas, guarantees a pleasant learning experience.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



网站界面

Website

## 外国专家参与制作 独特视角推介中国

课程邀请了多名生活在中国的外国旅游专家参与内容制作。曾担任以色列驻华旅游参赞的Bora Shnitman带领观众开启北京非遗文化探索之旅, 在地坛公园学习打太极拳, 在胡同里体验面塑, 了解景泰蓝制作技艺, 到同仁堂感受古老中医药的魅力。在他看来, 课程内容生动接地气, 而且都是原创。定居在大理喜洲的美国人林登, 介绍了中国关于可持续旅游方面的发展, 他认为, “课程关注到具体的人做的具体的事, 能够让学习者更深入地了解中国旅游市场这几十年的变化。” 中旅途易首席执行官Brettschneider介绍了他喜爱的旅游目的地四川, 他认为“课程内容实用、针对性很强, 学习课程的过程也乐趣无穷。”

### Unique Views from Foreign Experts

Some tourism experts living in China are invited to participate in the content production of the Course. Bora Shnitman, the former Israeli Counselor of Tourism to China, leads the audience on a journey to

explore Beijing's intangible cultural heritages—Tai Chi in Ditan Park, dough sculptures in Beijing hutongs, Chinese cloisonne techniques, and traditional Chinese medicine in Tong Ren Tang. His original course depicts a lively and vibrant Beijing. Linden, an American living in Xizhou, Dali, introduces the development of sustainable tourism in China. He believes that “the Course focuses on the specific things that specific people do and enables learners to have a deeper understanding of the Chinese tourism market over the past few decades.” Brettschneider, CEO of TUI China Travel, introduces his favorite tourist destination, Sichuan, and he comments that “the Course is practical and well-targeted, offering a joyful learning process.”



旅游专家Bora在地坛公园打太极

Travel Expert Bora Shnitman practicing Tai Jiquan at Beijing Ditan Park



旅游专家Bora在北京胡同体验面塑制作

Bora Shnitman followed instruction of how to make dough figurines, a Chinese traditional art using sticky rice flour

## 搭建合作共赢平台 助力全球旅游业复苏

“中国旅游课程”平台自2022年上半年推出以来, 获得国际旅行商的普遍欢迎和好评。来自瑞士Laax滑雪度假区的经理Saskia Graf女士表示: “我很关注北京冬奥会, 这对于中国冰雪旅游有很大推动, 很高兴能通过课程了解到相关内容。”来自荷兰的Kees Van Galen是资深中国旅游专家, 1990年就出版了荷兰语版《中国旅行手册》。在认真学习课程后, 他最大的感受就是荷兰旅行商能从中获得许多中国旅游产品的灵感, “因为课程提供了非常丰富的旅游路线的选择。”来自法国“旅行之家旅行社”的产品经理Marie Fejos表示, 这些课程内容让她对疫情后中国入境游市场充满了信心, “因为它展现了中国旅游市场丰富的产品, 尤其是那些新玩法让我大开眼界。”

### A Platform for Win-Win Cooperation to Promote the Recovery of the Global Tourism Industry

Since its launch in the first half of 2022, the Course has won critical acclaim from international travel agencies. Ms. Saskia Graf, the manager of the Ski Resort Laax in Switzerland, said, “I’ve been following the Beijing Winter Olympics, which will greatly promote ice-snow tourism in China. I’m very glad to know some relevant information from the Course.” Kees Van Galen from the Netherlands is an experienced Chinese tourism expert. In 1990, he published the Dutch version of “Travel Guide to China”. After taking this Course, he thought that it could give Dutch travel agencies great inspiration to develop products for Dutch tourists traveling to China. The Course provides a range of choices of itineraries. Marie Fejos, the product manager of Les Maisons du Voyage said that the Course gave her full confidence in China’s inbound tourism in the post-pandemic world, and she thought, “The Course shows various Chinese tourism products. Those brand new experiences broadened my horizons.”



荷兰资深中国旅游专家高度评价课程内容

*Kees Van Galen, a specialist of China inbound travel, spoke highly of the China Travel Course*

## 展望未来, 数字赋能打造一体化营销平台

未来, “中国旅游课程”学习平台将基于入境游客需求, 推出更多中国特色鲜明、国际化程度高的精品旅游线路和产品。在打造特色内容和呈现方式多元化的基础上, 通过数字技术赋能, 进一步优化用户体验, 开发潜在功能, 举办在线路演、同业推介会、线上线下相结合的活动, 逐渐建立起丰富的产品库、资料库等等, 将平台打造成推动中外旅游业界合作共赢的专业数字平台。

### An Integrated Digital Marketing Platform for Future

In the future, the “China Travel Course” learning platform will release more exclusive itineraries and products with Chinese characteristics tailored to international tourists. With unique content and diversified presentation methods empowered by digital technology, the platform will keep improving users’ learning experience and exploring potential functions. It will serve online roadshows, promotional meetings, and online and offline activities. With abundant products and a powerful database, this professional digital platform will promote win-win cooperation between the tourism companies in China and beyond.



## 餐桌上的“地标”故事

### “GI” Stories on Dining-Table

申报机构:《当代世界》杂志社

**Applying Institution:** Contemporary World Magazine

参与机构: 中国搜索中国好故事

**Participating Parties:** China Story from Chinaso

案例涉及的国家 and 地区: 中国、西班牙、德国、美国等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, Spain, Germany, United States

## 一则动画短视频, 讲述了“网红”土特产远行千万里进入亿万中国与欧盟国家民众家庭的故事。

An animated short film within 2 minutes tells the stories of how geographical indications from China and EU countries enter billions of households beyond thousands of miles.

2021年4月26日世界知识产权日到来之际, 中联部英文公众号“中共进行时”(CPC WORKS, 由《当代世界》杂志社主办) 联合中国搜索中国好故事(新华社主办) 共同出品中、英双语动画短视频《餐桌上的“地标”故事》。

On the occasion of World Intellectual Property Day on April 26<sup>th</sup>, 2021, the English WeChat official account “CPC WORKS” (sponsored by Contemporary World magazine) of the International Department of Central Committee of CPC cooperated with China Story from Chinaso (hosted by Xinhua News Agency) to co-produce a Chinese and English bilingual animated short video “GI’ Stories on Dining-Table”.

## 中欧特产跨越千山万水

清晨莱茵河畔的小镇慢慢苏醒一杯冒着热气的云南保山小粒咖啡浓醇四溢地球另一端阳光照射云南山野鲜嫩的松茸与马吉那山脉橄榄油巧妙碰撞让馥郁的香味在舌尖蔓延.....



在云南品尝马吉那山脉橄榄油  
Taste the Sierra Mágina Olive Oil in Yunnan

## Geographical indications from China and EU countries across thousands of miles

Early in the morning, a small town on the Rhine River gradually wakes up to the aroma of a cup of steaming coffee, which is brewed with Baoshan Arabica Coffee beans from Yunnan, China. On the other side of the globe, the sun shines on the mountains and plains of Yunnan. The fresh and tender matsutake mushroom is ingeniously stir-fried with the Sierra Mágina Olive Oil produced in Spain, spreading the rich fragrance on the tip of the tongue.



莱茵河畔畅享云南保山咖啡  
Enjoy a cup of fresh brewed Baoshan Arabica Coffee by the Rhine River

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

## 足不出户品尝地道美食美酒

忙碌了一天的欧洲, 安岳柠檬的酸甜与西班牙海鲜饭的搭配, 紧紧抓住人们的味蕾, 卸下一天的疲惫。此刻的中国, 已是深夜, 四川安岳依旧灯火通明。一杯慕尼黑啤酒, 让人们都能感受到欧洲绿茵场上的热情。

### Taste authentic food and wine without leaving home

As a busy day in Europe is over, the sweet and sour taste of Anyue Lemon together with Spanish paella firmly seizes people's taste buds and eliminates their day fatigue. It is already late at night in China, and Anyue County in Sichuan province is still brightly lit. A glass of Munich Beer makes people feel the enthusiasm from the European football field.



## 地理标志连通你我 共同发展惠及全球

即使相隔万水千山, 中国与欧盟国家的民众不出国门就能品鉴到对方的地道美食美酒。这得益于历经8年谈判, 在2021年3月1日正式生效的《中欧地理标志保护协定》。从此, 许多“网红”地标, 将共同盖上中国和欧盟双方的地理标志官方标志。中国的“金标”和欧盟的“红标”“蓝标”将频繁出现在中欧人民的日常生活中。



### 中欧特产跨越千山万水

Geographical indications from China and EU countries across thousands of miles

### Together We Share the World Connected GI Makes Us Become

Nowadays, even if they are separated by thousands of miles, people in China and EU countries can taste authentic foods and wine from each other without going abroad. All thanks to the EU-China Geographical Indications (GIs) Agreement which formally entered into force on March 1st, 2021, after eight years negotiation. From that time onwards, many “online celebrity” products of Geographical Indications are being stamped with the official GI marks of both China and the European Union. China’s “gold mark” and the EU’s “red mark” (PDO) and “blue mark” (PGI) frequently appears in the daily lives of the people from both sides.





《中欧地理标志保护协定》正式生效  
*the EU-China Geographical Indications (GIs) Agreement formally entered into force*



地理标志连通你我  
*Together We Share the World Connected GI Makes Us Become*

# 携手,为人民

Join hands, for the people.

## 携手,为人民

### Join Hands, for the People

**申报机构:** 中国共产党中央委员会对外联络部新闻办公室

**Applying Institution:** Information Office of the International Department Central Committee of CPC

**参与机构:** 新华社

**Participating Parties:** Xinhua News Agency

**案例涉及国家和地区:** 中国、俄罗斯、德国、瑞士等11个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

11 countries and regions such as China, Russia, Germany, Swiss



## 为人民谋幸福:政党的责任

For The Wellbeing of the People: The Responsibility of Political Parties

2021年7月6日,中国共产党与世界政党领导人峰会召开。习近平总书记同来自160多个国家的500多个政党和政治组织的领导人参会,探讨“为人民谋幸福与政党的责任”。《携手,为人民》作为峰会暖场片,在现场播放。

On July 6, 2021, the Communist Party of China (CPC) and World Political Parties Summit was held. Xi Jinping, general secretary of the CPC Central Committee, and leaders of more than 500 political parties and political organizations and various circles from over 160 countries gathered for the online event. The event's topic of discussion centered around ways to work for people's wellbeing and the responsibilities of political parties. "Join Hands, for the People" was screened as the warm-up video of the summit.

## 以人民为中心,弘扬全人类共同价值

《携手,为人民》是一部时长8分钟的视频,共两个版块。第一版块从生态环保、抗击疫情、脱贫攻坚三个领域切入、展开,讲述共产党员践行“绿水青山就是金山银山”“人民至上、生命至上”“全面建成小康社会,一个也不能少”等理念。第二版块从“发展在我们手中”“和平在我们手中”“美好在我们手中”“未来在我们手中”四个寓意角度出发,突出维护世界和平、促进共同发展、文明交流互鉴、共商共建共享、引领世界走向美好未来等人类共同的价值理念和情感追求。

### Work together to benefit the people

The eight-minute video consists of two parts. The first part involves three topics: eco-environmental protection, epidemic prevention and control, and poverty alleviation. It vividly captures the work of CPC members in implementing the principles of "lucid waters and lush mountains are invaluable assets," "putting protection of people and human life above everything else," and "a moderately prosperous society is to be enjoyed by each and every one of us." The second part explores four dimensions: "development is in our hands," "peace is in our hands," "happiness is in our hands," and "the future is in our hands." This part highlights the universal values and common emotional pursuit of all people, including maintaining world peace, promoting joint development, exchange and mutual learning among civilizations, consultation, contribution and shared benefits, and leading the world toward a better future.



2019年,阿者科村实现全村脱贫  
Azhike Village has been lifted out of poverty since 2019



30年来,中国累计派出维和人员4万余人  
Over the past 30 years, China has sent more than 40,000  
peacekeepers

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

## 多渠道传播, 实现全球落地推广

该片首先在全球直播的峰会现场展播, 并被翻译成英语、法语、德语、阿拉伯语、西班牙语等十余种语言, 在中国各驻外使领馆国庆招待会上播放, 各国政府官员、党政要员以及社会各界人士均在活动现场观看。同时, 该片还在优兔、推特、脸书、四达时代等各国社交媒体平台及中国各大媒体投放, 以直击内心的镜头语言和引发共鸣的动人故事在海内外备受好评。

### Effective international communication through promotion via multiple channels

The video was screened at the summit venue to the participants and people around the world, and was translated into over 10 languages including English, French, German, Arabic, and Spanish before it was shown abroad to government officials, political party leaders, and representatives of various circles on National Day receptions by Chinese embassies and consulates. At the same time, the video was distributed on media platforms such as YouTube, Twitter, Facebook, and Startimes. It was also displayed on China's major media outlets, winning acclaim in China and the rest of the world for its production and narrative.



峰会现场播放暖场片

A warm-up film shown at the summit

## 巧妙设计, 切合海内外观众共情点

该片通过“手”的意象和共情共鸣的画面叙事, 提升短片亲和力和感染力。例如张桂梅布满膏药的双手、杜富国举起空空的衣袖敬军礼、塞罕坝护林员粗糙开裂的手掌等镜

头, 让人倍加感动、瞬间“破防”。短片尾声部分采用画面分屏互动和相似物转场等方式, 巧妙地将非洲象与大熊猫、茶与咖啡、火箭与火炬、乒乓球与棒球等世界元素无缝衔接, 用细节和形象展现文明交流互鉴、美美与共等共情理念。

### Creative expressions resonate with audience

With the image of hands as a thread, the short video presents a series of resonant pictures that pull at the heartstrings of the audience, like the pictures of Zhang Guimei's hands covered with plaster, Du Fuguo raising his empty half sleeve in salute, and the rough and cracked hands of forest rangers in Saihanba. Using the visual effects of split-screen interaction and transition between similar objects, the ending part of the video creates pairs of global elements. This includes giant pandas and African elephants, tea and coffee, a rocket and a torch, and Ping-Pong and baseball, showcasing exchanges and mutual learning between civilizations and the diversity of the global community.



塞罕坝护林员像呵护孩子一样培育树苗

Saihanba forest rangers nurture saplings as if they were children



境外光明行公益项目

Overseas Guangming Action public welfare project

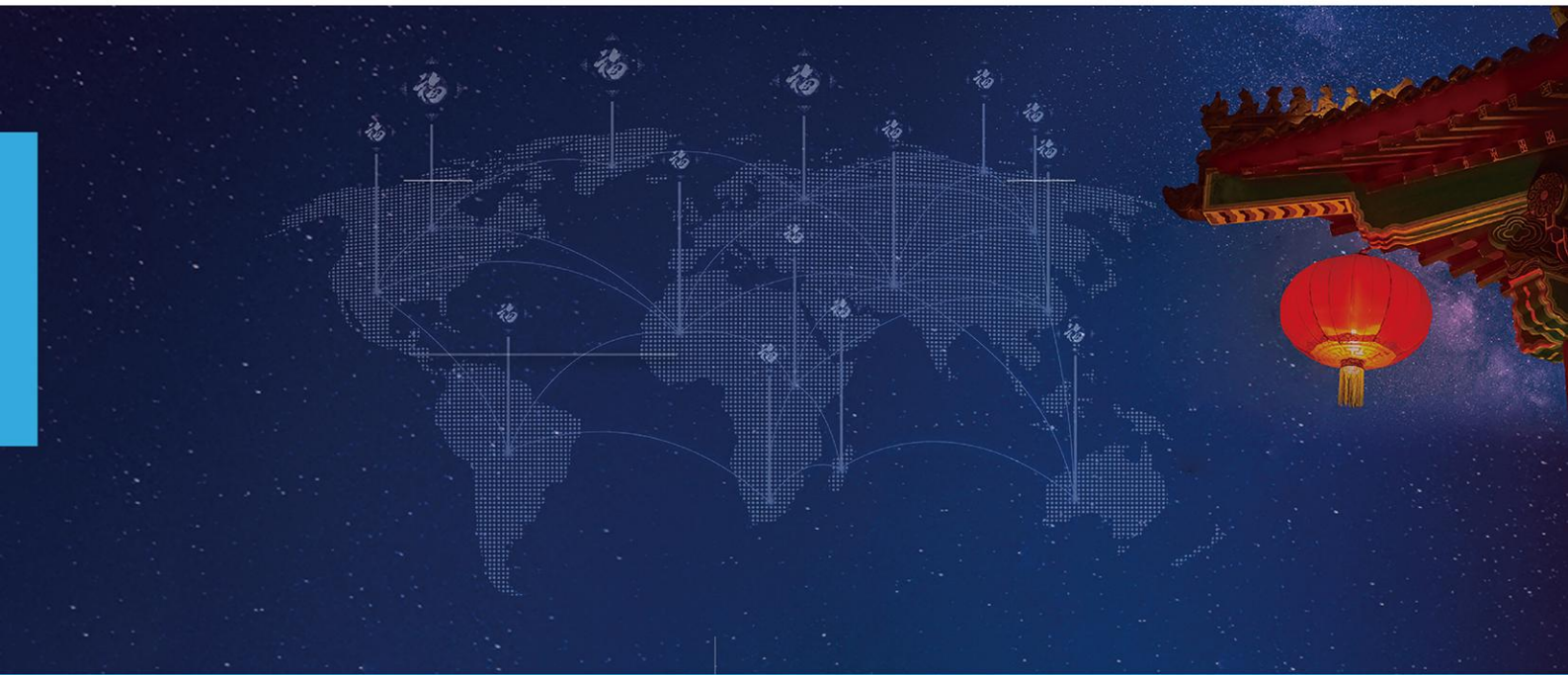


## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



# 福到全球千万家

## FU AROUND THE WORLD

**申报机构:** 中国国际文化交流中心

**Applying Institution:** China International Culture Exchange Center (CICEC)

**案例涉及的国家 and 地区:** 美国、新西兰、日本、韩国等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**  
Countries and regions such as United States, New Zealand, Japan, South Korea

## 福到全球千万家, 让“中国福”成为“世界福”, 向世界传达深情厚谊, 祈福世界和平, 挥毫落纸, 弘扬春节民俗文化, 用“福字春联”的祥瑞方式, 书写当代精彩华章, 彰显你中有我, 我中有你的“人类命运共同体”时代价值。

Through the international cultural exchange and public welfare activity of "FU AROUND THE WORLD" (FU, 福, a Chinese character symbolizing blessing and fortune), "China Blessing" becomes "World Blessing", conveying deep friendship to the world and praying for world peace. Moreover, this auspicious way of writing Spring Festival couplets and the blessing character "FU" shows the core value of "building a community with a shared future for mankind".

为推进人类各种文明的交流交融、互学互鉴, 在全球语境下讲好中国故事, 全球视域下传播中国好声音, 积极在国际社会弘扬中华文化智慧, 发挥中华文化凝聚力, 更好地推动中华文化走出去, 让世界更深入阅读中国、读懂中国, 并向全球传递抗击疫情信心, 生动践行“人类命运共同体”的时代价值理念, 2020年9月, 中国国际文化交流中心等发起主办「福到全球千万家」国际文化交流公益工程活动。

In order to promote the exchange of blending and mutual learning of human civilizations, tell good stories of China in the global context, spread China's good voice from the global perspective, actively carry forward the wisdom and exert the cohesion of Chinese culture in the international community, facilitate the Chinese culture globally, let the world read China more deeply and understand it, convey confidence in fighting the pandemic to the world, and vividly practice the era's core value concept of "community with a shared future for mankind", China International Culture Exchange Center and some other organizations initiated and hosted the international cultural exchange public welfare project activity themed with "FU AROUND THE WORLD" in September 2020.

### 「福到全球千万家」国际文化交流公益工程全球启动

“福”是中国人最传统的祝愿, 承载着中华民族的文化情感、民族记忆与美好期望, 写春联、贴福字又是最纯粹的春节符号, “中华福文化”源远流长, 历久弥新, 「福到全球千万家」便是一项以“中华福文化”为底蕴, “书画艺术”为载体展开的国际文化交流公益工程。2020年12月3日, 主办方中国国际文化交流中心、中华世纪坛世界艺术中心等在北京中华世纪坛联合举办了这一工程的全球启动仪式暨福字春联作品展。

### "FU AROUND THE WORLD" – The World Launch of This International Cultural Exchange and Public Welfare Activity

"FU" is a Chinese character symbolizing blessings and fortune. It is the most commonly used traditional wish of the Chinese people carrying cultural emotions, national memory, and good expectations. Writing Spring Festival couplets and pasting "FU" on the doors are the symbols of the Chinese New Year wishes. "Chinese Blessing Culture" has a long history, dateless with great spiritual values. With "Chinese Blessing Culture" as the core and "Calligraphy and Painting Art" as the carrier, The CICEC initiated and hosted the "FU AROUND THE WORLD" activity. On December 3, 2020, China International Culture Exchange Center, the organizer, and China Millennium Monument World Art Center jointly held the global launching ceremony of this activity and the Spring Festival Couplets and FU Calligraphy Work Exhibition at the China Millennium Monument in Beijing.

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

「福到全球千万家」国际文化交流公益工程首期五年, 从2020年12月开始至2026年春节结束。活动组委会聘请国际知名人士、书画名家担任“全球送福大使”“全球书福志愿者”, 计划5年内向全球送出1000万件福, 范围覆盖所有与中国建立外交关系的国家。

The first phase of this "FU AROUND THE WORLD" activity will last for five years which started in December 2020 and continues to the Spring Festival of 2026. The organizing committee has invited famous people, calligraphers, and painters from all walks of life at home and abroad to serve as "Global Blessing Ambassadors" and "Global Blessing Volunteers" to write Spring Festival couplets and blessing character "FU". It plans to send a total of 10 million pieces of "FU" to the world within 5 years covering all 180 countries that have diplomatic relations with China.



日本前首相鸠山由纪夫担任「福到全球千万家」“全球送福大使”  
Former Japanese prime minister Yukio Hatoyama serve as  
"Global Blessing Ambassadors"

## 「福到全球千万家」福字春联作品展暨腊月廿四全民书写日送福公益活动

已连续两年联动全球70余国家同时举办了以「福到全球千万家」为主题的各类线上线下互动活动。

"FU AROUND THE WORLD" – The Spring Festival Couplets and FU Calligraphy Work Exhibition and Sending FU Public Welfare Event on the 24<sup>th</sup> Day of the 12<sup>th</sup> Lunar Month Event

It has been carried out in more than 70 countries around the world for two consecutive years with various online and offline interactive activities.

此外, 已连续两年举办的两届「福到全球千万家」福字春联作品展均通过线上发起全球作品征集, 共汇集了苏士澍、孙晓云、张杰、胡素丹、阮渊椿、丘程光、金岳祺、日本前首相鸠山由纪夫、韩国前国会议长文喜相、韩国书法泰斗权昌伦、老挝国会副主席宋玛等70多个国家500余名国际书画名家的1000余幅福字春联作品, 展览采用线上加线下的形式同步呈现。

In addition, "FU AROUND THE WORLD" - The Spring Festival Couplets and FU Calligraphy Work Exhibition which has been held for two consecutive years, launched a global call for works online. It collected more than 1,000 Spring Festival couplets and FU calligraphy works from over 500 international calligraphers and painting masters in over 70 countries, such as Su Shishu, Sun Xiaoyun, Zhang Jie, Hu Sudan, Ruan Yuanchun, Qiu Chengguang, Jin Yueqi, Former Japanese prime minister Yukio Hatoyama, Former head of South Korean parliament Moon Hee-sang, Korean calligraphy master Kwon Chang-Ryun, Vice president of the Lao National Assembly Sommad Pholsena. The exhibition was held online and offline simultaneously.



到「福到全球千万家」全民书写日活动现场接福的北京  
各界家庭代表

Some Beijing families received "FU" at the Sending FU Public Welfare Event on the 24<sup>th</sup> Day of the 12<sup>th</sup> Lunar Month

## 「福到全球千万家」全球迎春书福送福公益活动

「福到全球千万家」国际文化交流公益工程聚焦改为人类命运共同体的福祉, 已连续两年同时联动美国、新西兰、日本、韩国、俄罗斯、印尼、阿根廷、菲律宾、柬埔寨、瑞士、意大利、希腊、阿联酋、马来西亚、文莱、老挝、安哥拉、匈牙利

等全球70余国家和地区举办了以「福到全球千万家」为主题的线上线下迎春书福送福公益活动。

### "FU AROUND THE WORLD" – Global Sending FU Public Welfare Event

Focusing on the destiny and common well-being of mankind, the Global Sending FU Public Welfare Event has been held online and offline simultaneously for two consecutive years in more than 70 countries and regions including The United States, New Zealand, Japan, South Korea, Russia, Indonesia, Argentina, Philippines, Cambodia, Switzerland, Italy, Greece, United Arab Emirates, Malaysia, Brunei, Laos, Angola, Hungary, etc.



新西兰总理杰辛达·阿德恩(中)、中国驻奥克兰总领事阮平(左一)与新西兰国会议员陈耐锶一起接福

*New Zealand Prime Minister Jacinda Ardern (middle), Consul General of China in Auckland Ruan Ping (Left), and New Zealand Parliament Member Naisi Chen received FU together*

### 「福到全球千万家」向全球华人送“福”文化数字藏品

在中华民族传统节日壬寅(虎年)新春佳节之际,「福到全球千万家」组委会、全球华人书画艺术基金携手中国国际文化交流中心、人民文创、环球人物以及腾讯共同发起“新春送福 福满全球”活动,并于2022年1月27日首次面向全球发行青花瓷“福”文化数字藏品。

### "FU AROUND THE WORLD" – Sending FU Cultural Digital Collection to Overseas Chinese People Event

On the occasion of the Spring Festival of the Year of Tiger, the organizing committee of "FU AROUND THE WORLD" activity, the

Global Chinese Painting and Calligraphy Art Fund, together with China International Culture Exchange Center, People's Culture and Creativity, Global Figures and Tencent jointly launched The "New Year's blessing, Full of the World" event, and released the blue-and-white porcelain "FU" cultural digital collection for the first time on January 27, 2022.

「福到全球千万家」向全球华人送“福”文化数字藏品线上活动,总传播覆盖全球2亿+。

This Sending FU Cultural Digital Collection to Overseas Chinese People event covered a total spread of more than 200 million people around the world.



「福到全球千万家」向全球华人送“福”文化数字藏品新春送福 福满全球

*Sending FU Cultural Digital Collection to Overseas Chinese People "New Year's blessing, Full of the World"*

### 「福到全球千万家-为北京冬奥会和冬残奥会送福」专题活动

2022年北京冬奥会恰逢中国传统节日的春节,为表达大众欢迎冬奥、助力冬奥的饱满热情,由中国国际文化交流中心等主办的「福到全球千万家-为北京冬奥会和冬残奥会送福」活动在北京会议中心举办,同时线上直播。该专题活动旨在积极传承冬奥文化,弘扬奥林匹克精神,凝聚中国力量,发扬中国优秀传统文化,展示民族文化自信。

### "FU AROUND THE WORLD"—Sending FU for Beijing 2022 Olympic and Paralympic Winter Games Event

The Beijing 2022 Olympic and Paralympic Winter Games has coincided with the Chinese Spring Festival. In order to express the public's enthusiasm for the Winter Olympics, the Sending FU for Beijing 2022 Olympic and Paralympic Winter Games Event, organized by China International Culture Exchange Center together with other organizations was held at the Beijing Convention Center and was broadcasted live online at the same time. This event was aimed to actively inherit the Winter Olympics culture, carry forward the Olympic spirit, depicted China's strength, portrayed China's excellent traditional culture, and demonstrated national cultural confidence.

文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building An Online Platform for Cultural Exchanges and Mutual Learning

# 联盟图片 搜你所想



筛选  
条件

热门搜索: 生物 真菌界 月季 松下兰 马先蒿属 沙参属 金叶树 狗尾红 龙珠  
果



## 全球生物图片搜索引擎

A Global Biological Image Search Engine

**申报机构:** 中国科学院西双版纳热带植物园

**Applying Institution:** Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences

**案例涉及的国家 and 地区:** 中国、美国、印度、澳大利亚、南非等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, United States, India, Australia, South Africa



## 联盟图片——认识世界生物可以如此简单

image.cubg.cn —— Learning about the worldwide creatures becomes so easy

不同国家有不同的生物种类, 由于语言和文字上的差异, 没有分类学基础的群众很难认识和了解其他国家的生物。全球生物图片搜索引擎的开发, 打通了不同语言间的隔阂, 让不同国家之间的动植物文化交流变得更加容易。

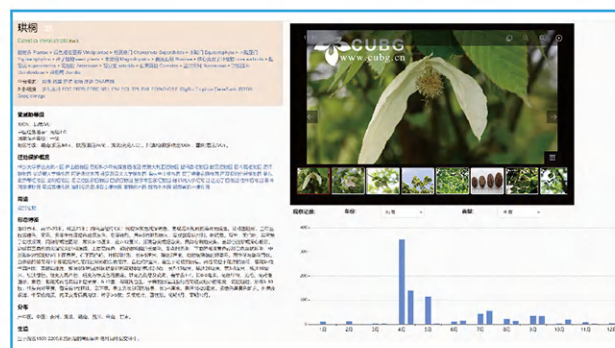
Different countries have different species. Due to the differences in languages and writings, it is very difficult for people without a taxonomic foundation to learn about creatures of other countries. The construction of a global biological image search engine has broken through the barrier between different languages and made it easier for animal and plant cultural exchanges between different countries.

### 建立全球生物标准图库

一个物种可以有无数多的俗名, 但只有一个全球通用学名, 我们利用生物学名的唯一性, 建立起全球生物名称标准数据库, 包括分类系统、异名与接受名系统, 其中数万种常见动植物收录了中文名、英文名、日文名等俗名。在此基础上建成全球生物图片搜索引擎——联盟图片 (<https://image.cubg.cn/>), 为613个生物主题网站的36万种生物图片建立了索引, 用物种名称相关的任意关键词即可快速搜索到相关的物种图片, 点击学名进入物种详情页面, 可以看到该物种的分类系统、保护状况、用途、描述等信息, 点击图片出处可了解对应网站对该物种的介绍。

### Establishing a global biological standard graphic library

A species may have numerous common names but only one scientific name. Using the uniqueness of scientific names, we have established a global biological name standard database which includes a classification system, synonym, and accepted name system. Chinese, English, Japanese, and other common names are provided with tens of thousands of common species in the database. On this basis, a global biological image search engine was built (<https://image.cubg.cn/>). The search engine provides an index for 360,000 species' images on 613 biological theme websites. Users can quickly access images by entering any keyword relevant to the species name. By clicking on the scientific name, users are able to enter the page of species details and can learn the classification system, conservation status, use, description, and other information of the species. By clicking on the source link of the picture, users can find an introduction to the species on the corresponding website.



物种详情页面

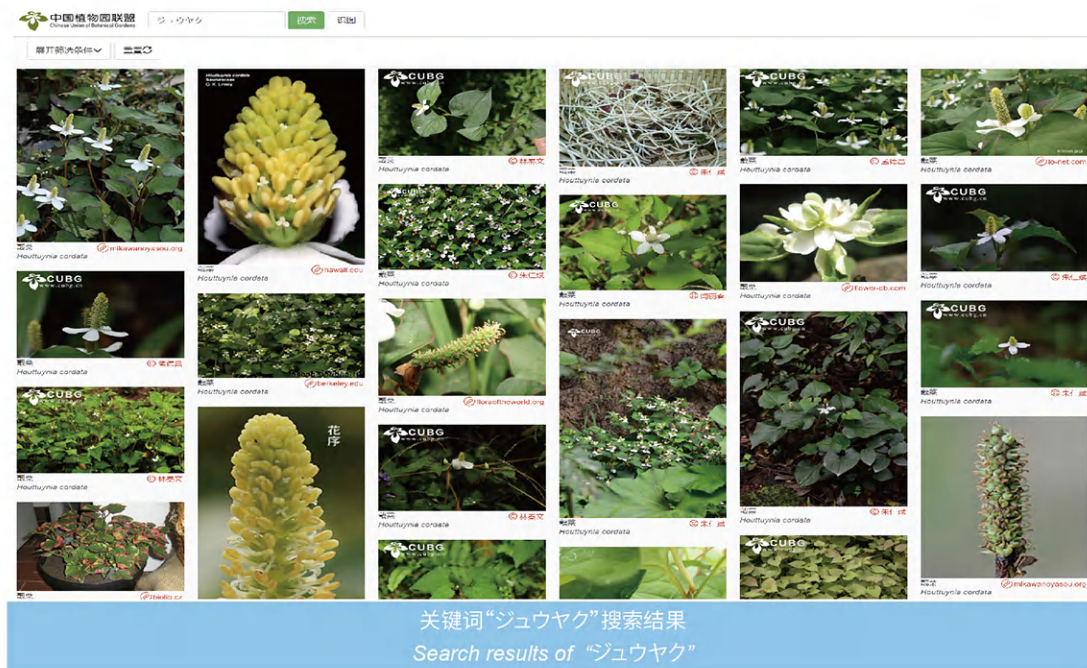
Details page of species

## 搜索关键词突破跨国语言障碍

生物学名通常由拉丁化的属名和种加词组成, 虽然世界通用, 但是很难记忆, 因此日常交流通常使用各国自己语言的叫法。联盟图片名称库收录了大量生物的俗名, 包括中文俗名、英文俗名、日文俗名、韩文俗名、俄文俗名等, 无论用哪种语言的名称关键词, 都可能搜到目标物种。中国和日本都是东亚国家, 植物种类也有很高的相似性, 许多植物在两国均有分布, 比如学名为 *Houttuynia cordata* 的植物, 中文名叫“蕺菜、鱼腥草、折耳根、猪鼻孔”等, 日文名叫“ドクダミ、ジュウヤク、十薬”, 英文名叫“Lizard tail、Chameleon plant”, 用其中任意一个俗名都可以直接找到正确的植物。

## Searching keyword breaks through the transnational language barrier

Scientific names are usually composed of genera and specific epithets. They are the only legal names throughout the world but they are difficult to remember. Therefore, people usually use the names of their national languages in daily communication. The image search engine contains a large number of species' common names including in Chinese, English, Japanese, Korean, Russian, and others. Regardless of the input language used for keywords, the target species may be found. China and Japan are both East Asian countries with high similarities in plant species. Many plants are distributed in both countries, such as the species *Houttuynia cordata*. Its Chinese common names include 蕺菜, 鱼腥草, 折耳根, 猪鼻孔, etc. Japanese common names include ドクダミ, ジュウヤク, 十薬, etc. English common names include the Lizard tail, Chameleon plant, etc. Users can find the correct plant directly by using any of these common names.

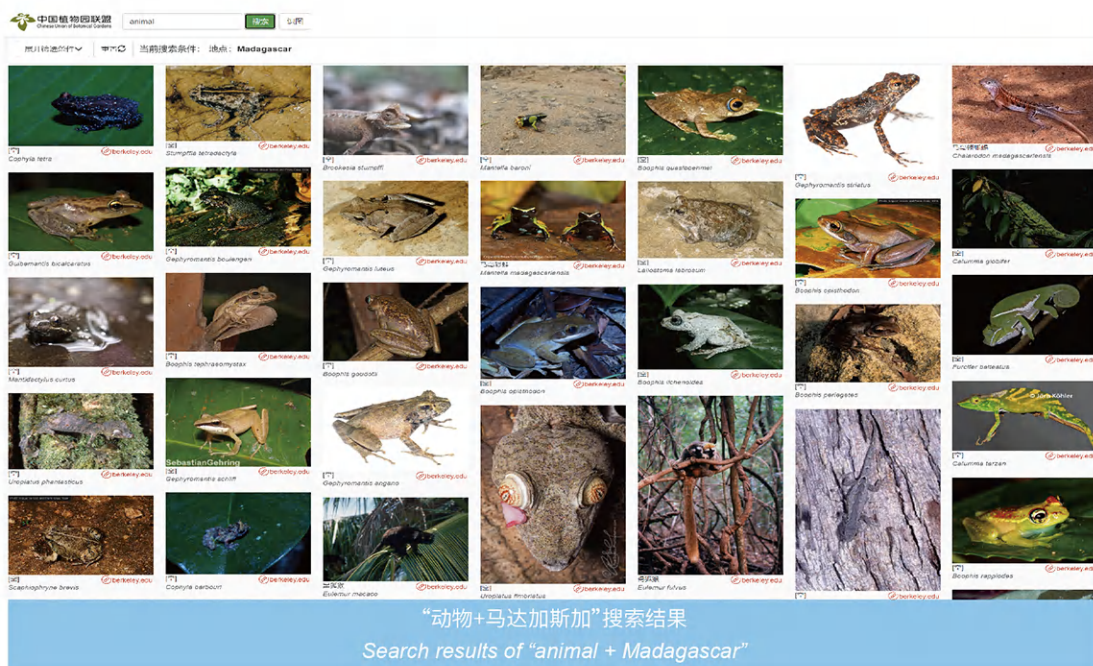


## 按国家搜索一步认识全球生物

联盟图片可以搜索全球254个国家或地区的动物或植物, 其中植物25万种、动物10万种和真菌1万种。点击条件筛选, 在搜索框输入“界门纲目科属种”对应的关键词, 如植物界、木贼门、木兰纲、葫芦目、秋海棠科、秋海棠属等, 在地点栏输入指定国家, 如匈牙利、塞尔维亚、巴西、马达加斯加、卢旺达、澳大利亚、日本等等, 点击搜索即可搜索指定国家指定生物类群的图片。没有分类基础的用户, 生物类群可以直接写植物、动物、蘑菇、蛾子、蝴蝶、蛇等等。通过这种方法, 一步即可轻松认识世界各国的物种。

## Learning about global creatures in one step through the country filter

The image search engine can search for animals or plants in 254 countries or regions around the world including 250,000 species of plants, 100,000 species of animals, and 10,000 species of fungi. Users can find the images by clicking on the conditional filter and entering the keywords corresponding to the species name in the search box, such as Plantae, Equisetophyta, Magnoliopsida, Cucurbitales, Begoniaceae, Begonia, etc. Users can also search for images of a specific taxon in the designated countries by entering the designated countries in the place column, such as Hungary, Serbia, Brazil, Madagascar, Rwanda, Australia, Japan, etc., and then clicking on the search button. It is also easily accessible to users without a taxonomic foundation. Users can access the image database by just writing taxon name as plant, animal, mushroom, moth, butterfly, snake and so on. In this way, all users can easily learn about worldwide species by one step.



文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning



## 友好人士话中国, 脸书群里共学习

Gather Global Friends in the Facebook Group

**申报机构:** 中国经济联络中心

**Applying Institution:** China Economic Cooperation Center (CECC)

**案例涉及的国家 and 地区:** 澳大利亚、黎巴嫩、土耳其等10个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

10 countries and regions such as Australia, Lebanon, Türkiye

## 在国际社交媒体平台上传播习近平新时代中国特色社会主义思想

Introducing the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era on the international social media platform

中国经济联络中心充分挖掘自身资源, 利用人脉广、社会影响力大的优势, 推动黎巴嫩中国阿拉伯合作与发展协会主席卡西姆·特法利和澳大利亚籍华裔郑镇洲共同运营“习近平-中国的杰出领袖”脸书群组, 在国际社交媒体平台上传播习近平新时代中国特色社会主义思想, 取得良好社会反响。

By leveraging its abundant resources, extensive connections, and enormous social influence, China Economic Cooperation Center (CECC) has facilitated the communication of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era in the Facebook Group “Xi Jinping-China’s Exceptional President”, jointly administrated by President Kassem Tofailli of the Arab Chinese Cooperation and Development Association and Michael Trinh, a Chinese Australian. The communication is well received by readers around the world.

### 该群组已成为脸上具有一定影响力的账号

“习近平-中国的杰出领袖”脸书群组目前拥有36万名来自世界各地的友华人士。群组成员不乏欧美等西方社会成员, 大多为大学以上学历, 在各自工作领域颇有建树, 属社会精英阶层。该群组氛围活跃, 经常性关注习近平总书记的重要论述并对有关视频、图文等进行转发, 对华认知深入、公正, 在国际社交媒体平台上展现真实的中国, 具备一定影响力。

[The group has become an influential account on Facebook.](#)

The “Xi Jinping-China’s Exceptional President” Facebook group currently has 360,000 members from all over the world. A large number of them are from the United States and Europe with bachelor’s degrees or above. They are social elites who have scored achievements in their respective fields of work. What they share in common is their interest in China. The group is active in sharing and forwarding the videos, pictures, and texts on expositions of the CPC General Secretary Xi Jinping. Therefore, they have gained a deep and thorough understanding of China. Being one of a few groups that show the real China, the group has gained a certain influence.

### 中国经济联络中心为该群组发展提供助力

中国经济联络中心长期关注该群组的建设发展, 并主动向其提供《关于自主探索民主道路、携手推动共同发展的联合声明》、《中国快讯》全过程人民民主专题英文特刊、《China Insight》电子网刊等多篇资料。该群组均及时转发有关资料, 取得较好效果。为进一步发挥好该群组的作用, 畅通传播的新渠道, 中国经济联络中心多次与该群组负责人进行交流, 鼓励其一起传播好习近平新时代中国特色社会主义思想, 共同讲好中国故事、中国共产党的故事。

[CECC supports the development of this group.](#)

CECC has been long paying close attention to the development of this group and shared such documents as the Joint Statement on Making Independent Efforts to Explore the Path Toward Democracy and Working Together to Promote Common Development, China Insight Special Issue on Whole-Process People’s Democracy and China Insight newsletters. The group forwarded relevant documents in a timely manner and made them well understood by international readers. To fully leverage on this group and build new communication channels, CECC has exchanged

## 文化交流

Online Cultural Exchanges and Mutual Learning

打造网上文化交流共享平台, 促进交流互鉴

Building an Online Platform for Cultural Exchanges and Mutual Learning

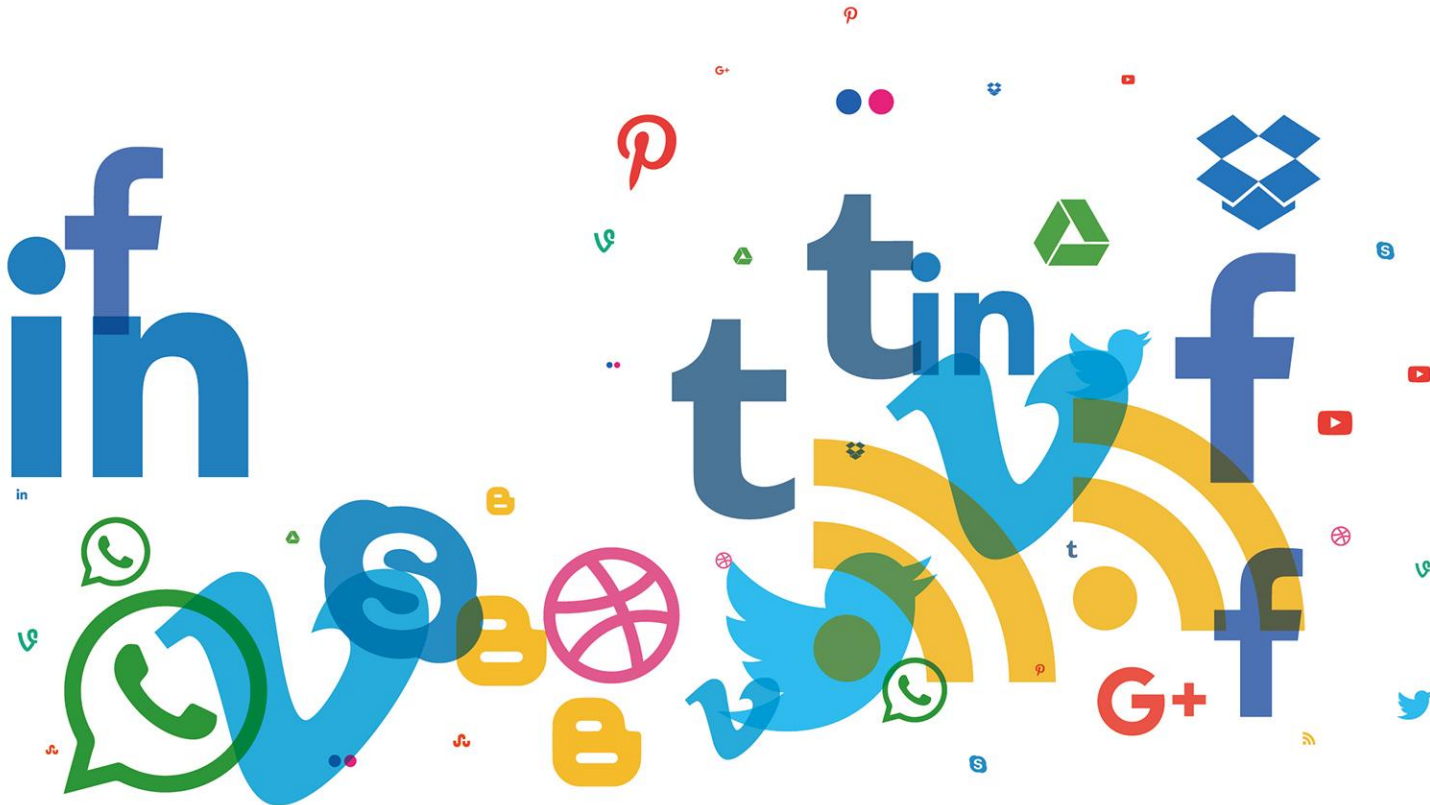
opinions with the administrators of the group and expressed the intention to work together to communicate the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and jointly tell the stories of China and the Communist Party of China.

## 中国经济联络中心将积极引导, 继续打造构建网络空间命运共同体的实践平台

下一步, 中国经济联络中心将继续引导脸书群组中的知华友华人士, 创建更多社交媒体平台, 就国际社会的主要关切答疑解惑, 正本清源, 传播中国声音, 推动构建网络空间命运共同体。

CECC will actively guide and put in place the platform for building a community with a shared future in cyberspace.

In the next step, CECC will continue to share information with members in the Facebook group who are eager to learn more about China and make efforts to create more social media platforms to address the concerns of global friends. CECC will show the real China and make Chinese voices heard in an effort to promote the building of a community with a shared future in cyberspace.

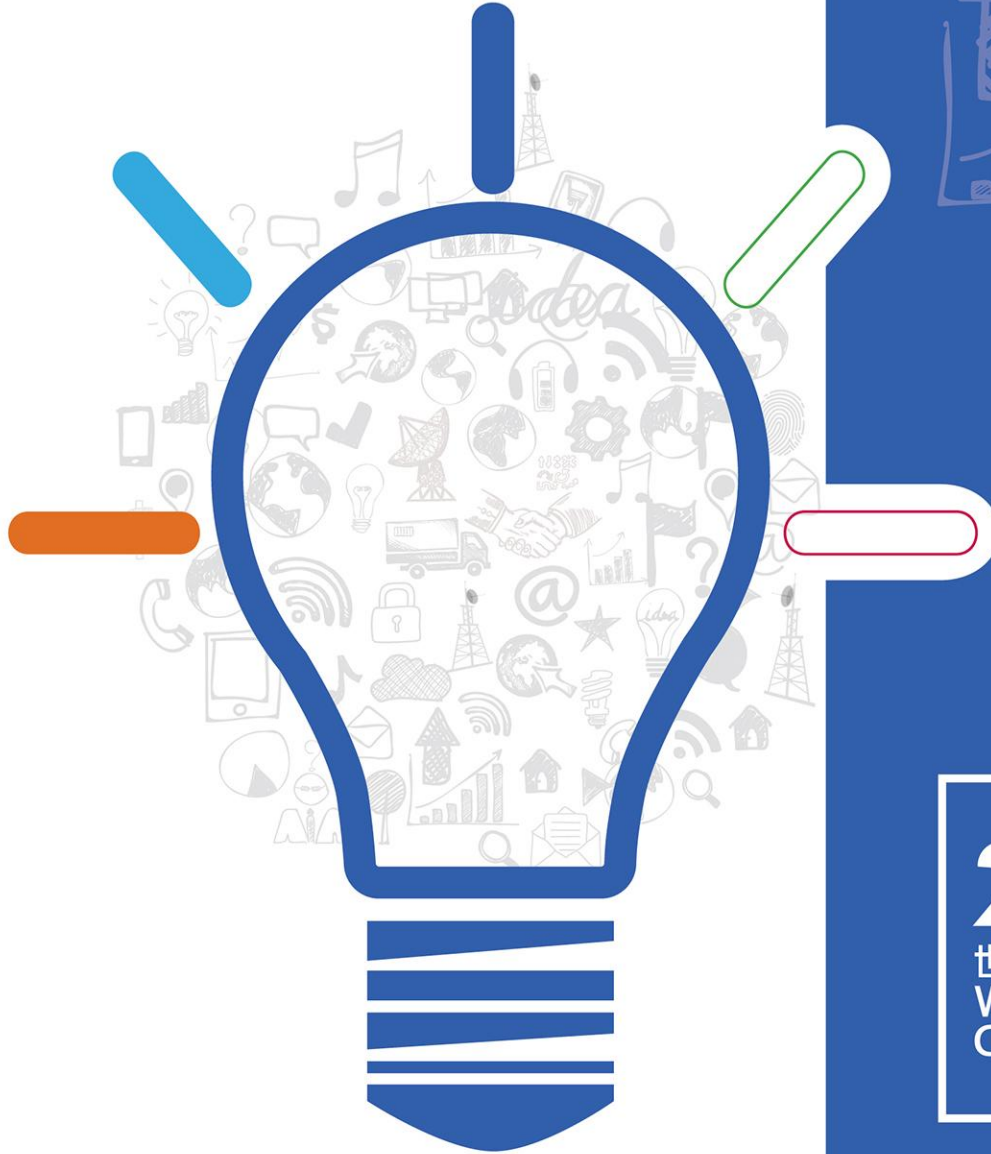


# 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity



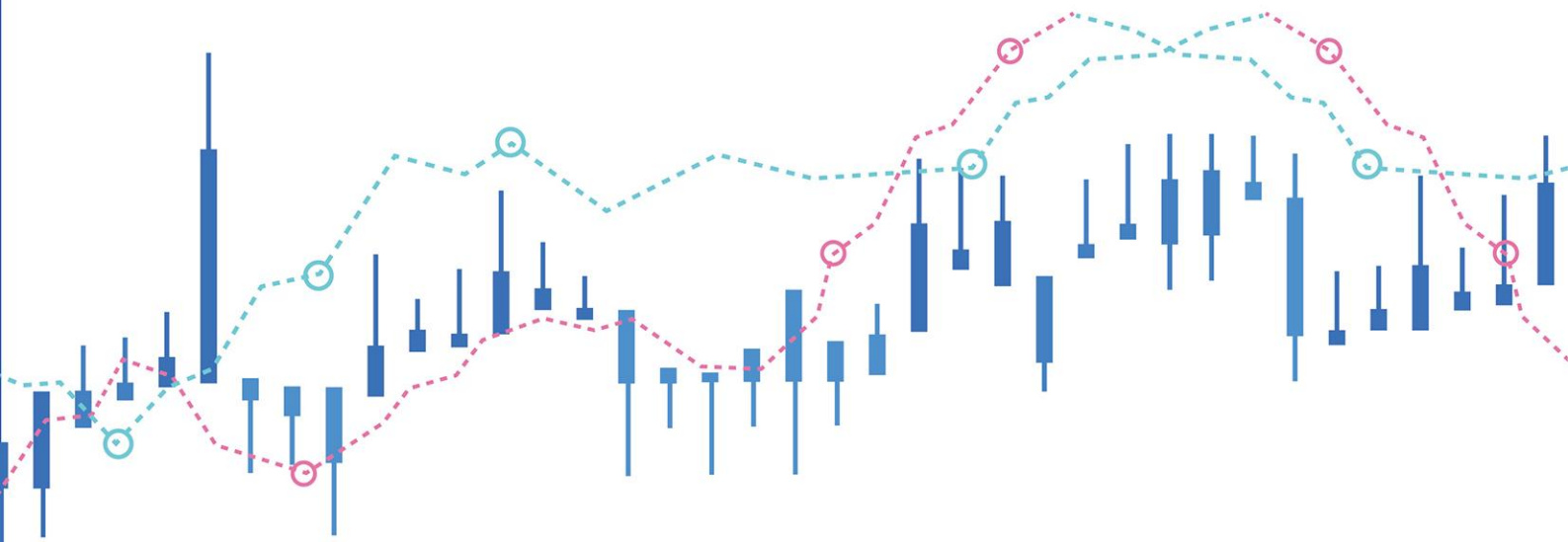
**2022**  
世界互联网大会  
World Internet  
Conference

# 数字经济

*Innovative Development of the Digital Economy*

推动数字经济创新发展, 促进共同繁荣

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





## 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity

# 建设“能联全球”数字化平台 赋能全球能源互联网发展实施

Build the “World of Energy Interconnection” Digitalized Platform, Facilitating the Development and Implementation of GEI

**申报机构:** 全球能源互联网发展合作组织

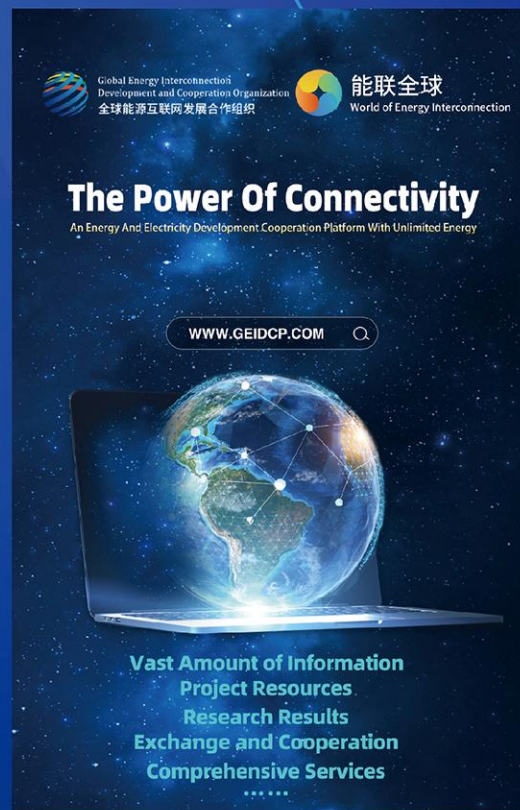
### Applying Institution:

Global Energy Interconnection Development and Cooperation Organization

**案例涉及国家和地区:** 中国、印度、德国、希腊、法国、埃及、巴西、智利、南非、埃塞俄比亚

### Countries and Regions Covered or Involved in the Implementation:

China, India, Germany, Greece, France, Egypt, Brazil, Chile, South Africa, Ethiopia



## 互联的力量, 能量无限的能源电力发展合作平台

The power of interconnection; energy and electricity development cooperation platform with unlimited power.

2015年9月26日, 中国国家主席习近平在联合国发展峰会上提出:“倡议探讨构建全球能源互联网, 推动以清洁和绿色方式满足全球电力需求。”

On September 26, 2015, Chinese President Xi Jinping proposed a discussion in establishing Global Energy Interconnection to facilitate efforts to meet global power demand with clean and green alternatives at the UN Sustainable Development Summit.

为凝聚各方智慧与力量, 更好地推动全球能源互联网建设, 全球能源互联网发展合作组织(以下简称“合作组织”)在广泛调研各方需求的基础上, 整合规划研究、项目开发、信息数据、合作网络等资源和成果, 精心研究设计, 历时一年多时间开发完成了“能联全球”平台, 于2021年3月23日面向全球正式发布。

In order to better pool the wisdom and strengths of all interested parties to promote the establishment of a Global Energy Interconnection (GEI) system, the Global Energy Interconnection Development and Cooperation Organization (GEIDCO) has designed and developed a platform named the Word of Energy Interconnection (WEI). The platform is the result of our year-long efforts, and reflects extensive needs analysis, and incorporates resources and research results which include planning research, project development, information and data, as well as our cooperation networks. The WEI platform was launched globally on March 23, 2021.



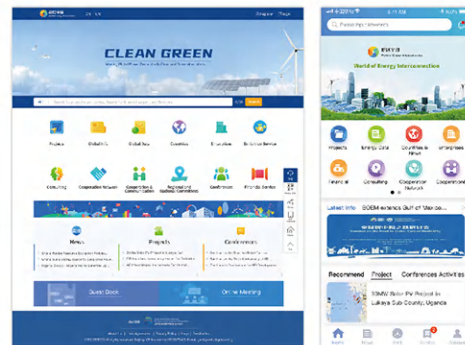
平台上线发布  
Launch Ceremony of WEI platform

## 打造全球能源互联网领域“互联网+”平台

“能联全球”平台以“大云物移智链”等先进技术为支撑, 立足能源领域, 聚焦可持续发展, 是融合能源、气候、环境等主题的多元化平台。

Build an “Internet +” platform in the global energy interconnection arena

WEI is a diversified platform based on the energy area focusing on sustainable development integrating energy, climate, environment, and others which is built on big data, cloud computing, IoT, mobile Internet, AI, and other cutting-edge technologies.



平台界面  
Website and APP homepage of WEI platform

## 打造融合协同、共享共赢的全球能源互联网新生态

作为国际上致力于推动全球能源电力发展合作的数字化平台,“能联全球”发挥“互联网+”优势,面向政府、国际组织、企业、金融机构等各方开放,推动能源合作由线下为主向线上与线下相结合转变,由一国、局部地区向全球范围拓展,突破空间约束,让各方合作范围更广、渠道更多、效率更高、成本更低。“能联全球”将打造能源电力领域平台经济的新引擎,促进技术创新与产业链升级,加速全球能源电力行业变革,增加各国经济发展动能,开创绿色发展新局面。



### GLOBAL 500



全球会员  
Global members

Form a new GEI ecosystem characterized by integration, coordination, sharing, and win-win cooperation

WEI represents the world's first-ever digitalized platform dedicated to the advancement of international energy and electricity development cooperation. Based on the strengths of the "Internet plus", and targeting governments, international organizations, enterprises, financial institutions, and other parties, it strives to transform the current energy cooperation structure from an offline dominant model to one in which the online and offline are combined. Also, to expand the scope of energy cooperation from its current extent -specific to countries and regions - to cover the world in its entirety. Thus, it will permit energy cooperation to transcend spatial limitations and occur across broader areas via more numerous channels with higher efficiency and lower cost. WEI's emergence will provide new impetus for the development of the platform economy in the energy and electricity fields. It will also promote technological innovation and industrial chain upgrading, expedite the reform of the global energy and electricity fields, create novel drivers of economic growth for countries worldwide, and shape a new landscape for green development.

## 推动产业优化升级, 畅通全球经济循环的新途径

“能联全球”贯穿全球能源互联网规划、投资和建设等环节,促进需求对接与资源共享,打造协同共建全球能源互联网的新格局。创新信息共享渠道,利用大数据、移动互联网、人工智能等先进技术,提供能源资源、技术、市场等数据资讯和研究成果,打破国家和地区间壁垒,推动政策对接、规划衔接,为各国和区域能源互联网建设创造有利条件。创新项目实施方式,聚焦清洁能源开发、电网互联、电能替代等领域,提供效益评估、投融资、技术咨询、宣传推介等综合服务,为项目寻找技术和资金,为投资者匹配优质项目,推动全球能源互联网在世界范围加速落地。

Promote a new avenue for adjustment and optimization of industrial structure, and ensure unimpeded flows across the global economy

WEI covers various stages related to GEI from planning all the way through to investment and construction. It can therefore promote the need for match-making and resource sharing, and forming new relationships for the joint development of GEI. WEI offers new information-sharing channels. With the aid of advanced technologies such as big data, the mobile Internet, and AI, it provides up-to-date data, information, and research results on energy resources, technologies, markets, and other sectors. Thus, helping countries and regions across national boundaries, enhancing policy and planning alignment, and creating favorable conditions for the development of GEI. WEI is also exploring new ways to initiate and implement projects. With a tight focus on clean energy development, power grid interconnection, and electricity replacement, it offers a wide range of services including benefit evaluation, investment and financing, technical consultation, and publicity and promotion. In addition to that, it fosters in helping projects discover technologies, funding, and helping investors find high-quality projects, accelerating the deployment of GEI worldwide.



项目推动  
Project promotion

## 构建全球能源电力领域发展合作生态圈

截至2022年6月底,“能联全球”平台共汇聚347个清洁能源开发和电网互联项目、116个重点国别信息、1302家会员、150万条资讯信息、230亿项指标数据、50余项发布成果等内容,注册用户覆盖全球80余个国家和地区,累计访问量达50余万次,初步构建了“能联全球”发展合作生态圈,有力推动全球能源互联网落地实施。

### Establish a global energy and electricity development cooperation ecosystem

By the end of June 2022, WEI has gathered 347 clean energy development and power grid interconnection projects, 116 key country information, 1302 members, 1.5 million pieces of information, 23 billion index data, and more than 50 published research reports. The registered users have covered more than 80 countries and regions around the world with a cumulative number of visits of more than 500,000 times. The WEI platform has preliminarily established a GEI development and cooperation ecosystem and effectively promoted the implementation of GEI.



平台愿景  
Platform development vision

数字经济

*Innovative Development of the Digital Economy*

推动数字经济创新发展, 促进共同繁荣

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

# SAP可持续数字创新方案引领全球绿色发展

SAP Sustainable Digital Innovation Solutions Lead Global Green Development

---

**申报机构:** 思爱普(中国)有限公司

**Applying Institution:** SAP (China) Co., Ltd.

**案例涉及的国家 and 地区:** 中国、德国、奥地利、阿根廷、加拿大、法国、印度、日本等60个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

60 countries such as China, Germany, Austria, Argentina, Canada, France, India, Japan



## 青山不墨千秋画, 绿水天成万古诗 --SAP 数字创新引领全球绿色发展

SAP Digital Innovation leads Global Green Development

SAP长期致力于用数字创新赋能绿色发展。

作为全球领先的企业应用软件提供商, SAP从2000年起将可持续发展作为企业长期战略, 成为全球率先推动数字化与绿色化协同发展的核心力量。自2009年推出本地部署的第一代可持续数字方案, SAP于2021年发布第二代全云可持续数字创新方案, 包括实现零排放的气候行动、实现零浪费的循环经济、实现零不平等的社会责任、实现全局视角的综合报告等四部分方案。SAP可持续发展数字方案创新性地实现全价值链、产业链、商业网络的数据透明, 打造可信、有效的ESG数据基础。SAP可持续发展解决方案创新性地实现经济效益和环境可持续的兼收并蓄, 为全球经济绿色发展提供新路径。

SAP has long been committed to empowering green development with digital innovation.

As the world's leading provider of enterprise application software, SAP has embraced sustainable development as a long-term strategy since 2000, and has become one of the pivotal drivers for the digital and green economy. SAP has launched two generations of digital sustainability solutions. The debut was the 2009 on-premise version, and the next-generation solution., SAP Cloud for Sustainable Enterprises, went live in 2021. SAP Cloud for Sustainable Enterprises consists of four components, namely, Climate Action for Zero Carbon, Circular Economy Solution for Zero Waste, Social Responsibility Solution for Zero Inequality, and Comprehensive Reporting Solution for Zero Invisibility. SAP solutions for sustainability innovate a reliable and effective data foundation for ESG practices by enabling data transparency across the value chain, industry chain, and business networks. SAP solutions for sustainability innovate a new path to a green economy by enabling the right balance between the bottom line and the green line.



### SAP碳排放管理方案助力企业精准计算碳排放

奥地利的一家防火材料高耗能企业在全球有35家工厂, 生产1.5万种产品, 每个工厂平均碳排放规模在20万吨级。该企业面临两个主要的挑战: 从业务流程中收集排放数据并高效和精准地计算碳排放, 以及满足欧洲碳排放交易

体系(EU-ETS)要求的碳会计系统。通过使用SAP的自动化碳排放管理方案, 该企业可以遵照法律法规和公司政策要求收集碳排放数据, 进行全面的数据计算和整合, 计算精度达到了公斤级。根据欧洲碳排放交易体系的要求, 管理碳信用账户, 记录二氧化碳证书交易, 利用方案中的预测能力在企业层级调整碳信用的分配。

## 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity

### SAP Carbon Emissions Management Solution Helps Enterprises Accurately Calculate Carbon Emissions

The Austria-based fireproof material company is struggling with high energy consumption. With a portfolio of 15,000 products to produce, it has an average carbon emission of 200,000 tons from each of its 35 factories across the world. The company has to deal with two key challenges: one is to collect emission data from business processes and calculate the carbon footprint in a precise and efficient manner. The other is to deploy a carbon accounting system that meets the requirements of the European Union Emissions Trading System (EU ETS). By using the automated carbon management solutions from SAP, it is now able to collect carbon emission data in accordance with laws, regulations, and corporate policies, and bring together all the data for comprehensive calculation with the results produced at the kilogram level. Also, in response to EU ETS requirements, the company can now manage carbon credit accounts, record carbon dioxide certificate transactions, and adjust the allocation of carbon credits at the enterprise level using the prediction functionality.



### 嵌入式减碳数字方案全面提升企业竞争力

德国一家全球领先的食物配料商, 在SAP系统的支持下, 对5千多种原料、2万多种产品进行碳足迹分析, 在满足130个国家合规要求的同时, 还能灵活动态调整生产布局

和采购组合, 动态进行碳足迹、生产、销售成本测算, 提高了企业竞争力。



### Embedded Carbon Reduction Digital Solutions Comprehensively Enhance the Competitiveness of Enterprises

The world-leading German food ingredient supplier has now increased its competitiveness with the help of SAP systems. It can conduct carbon footprint analysis over more than 5,000 materials and 20,000 products. And it has gained the flexibility to adjust production layout and procurement portfolio, and dynamically perform predictive calculations on carbon footprint, production, and cost of sales while meeting regulatory requirements in 130 countries.

### “盘锦指数”打造城市双碳平台, 引领城市可持续发展目标

2022年6月9日, “盘锦指数”框架在SAP可持续发展论坛上正式发布。这是“双碳战略”背景下, 中国城市率先发布的可持续发展综合指数, 并有望建设成为中国首家城市级数字化双碳创新平台, 指数将用于全面计算城市相关的安全、经济、绿色发展等指标, 从而辅助城市落实可持续发展目标。

## "Panjin Index" Builds a Carbon Peaking and Carbon Neutrality Goals Platform and Leads the City's Sustainable Development Goal

On June 9, 2022, the "Panjin Index" framework was officially released at the SAP Sustainability Summit. This is one of the earliest comprehensive indexes of sustainable development released by Chinese cities under the background of the "Carbon Peaking and Carbon Neutrality Goals" and is expected to be built into the first city-level digital Carbon Peaking and Carbon Neutrality Goals innovation platform in China. The index will be used to comprehensively calculate the safety, economy, green development, and other indicators, thereby assisting cities to implement sustainable development goals.

## 基于全球数字底座的基础和50年资源管理的优势, SAP在全球范围内推动实现数字化绿色发展

SAP在全球190多个国家和地区运营, 服务94%的世界500强企业, SAP的系统支持了全球87%的商业交易, 是无可争议的数字经济底座。同时, SAP在可持续领域已深耕近20年, 全球温室气体排放最高的公司中有 85% 是SAP的客户, 仅排名前2000的客户碳排放就占全球1/3。采用可持续数字方案后, SAP的客户ESG得分平均提高 73%, 二氧化碳排放量平均降低24%。SAP连续15年被道琼斯可持续发展指数评为软件行业领导者, 2021年保持DJSI指数软件行业第一; SAP进入代表国际环境报告黄金标准的国际组织

CDP评级的A级名单, 成为环境透明度和行动的领导者。SAP可持续数字方案通过触达全球碳排占比最高和减排需求最强的客户群体, 重塑企业运营和发展模式, 助力构建面向绿色发展的人类命运共同体。

Boasting a global digital base and 50 years expertise in resource management, SAP is positioned to help the world go digital and green.

SAP's customer base, which includes 94% of the Global Fortune 500, represents 87% of the world's total trading value, and covers the core business of more than 40,000 end customers in more than 190 countries, has become the base of the global digital economy. In addition, SAP has worked on sustainability solutions for nearly 20 years. 85% of the companies with the highest greenhouse gas emissions in the world are SAP customers, and the carbon emissions of the top 2000 customers alone account for one-third (1/3) of the world's total emissions, reaching 10 billion tons. After adopting digital solutions for sustainability, SAP customers have seen an average increase of 73% in ESG score and an average decrease of 24% in CO2 emissions. SAP has been the software industry leader in the Dow Jones Sustainability Indices (DJSI) for 15 consecutive years and maintained its position as a DJSI front-runner in the software industry in 2021. SAP was recognized as a leader in environmental transparency and action by CDP, an international organization that is viewed as the gold standard of environmental reporting, and made it to CDP's A-List. Reaching a customer base with the highest carbon emissions and the most urgent needs for carbon reduction, SAP's digital solutions for sustainability are reinventing the way to run and grow businesses, in an effort to boost green development and build a community with a shared future for mankind.





## 构建互联互通的国际物流大通道, 助力丝路电商新发展

### Constructing the Grand Passage for International Logistics Facilitating Interconnectivity and the Development of E-commerce along the Silk Road

**申报机构:** 菜鸟网络科技有限公司

**Applying Institution:** Cainiao Network Technology Co., Ltd.

**案例涉及的国家 and 地区:** 中国、比利时、俄罗斯、巴西、墨西哥、巴基斯坦、摩洛哥、萨尔瓦多等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, Belgium, Russia, Brazil, Mexico, Pakistan, Morocco, El Salvador



菜鸟比利时列日机场物流枢纽

CAINIAO eHub in Liege Belgium

## “一杯咖啡的价格运全球”

Users can ship packages to every corner of the world for the price of a cup of coffee.

菜鸟网络于2018年启动“国际物流大通道”建设。以基础设施为硬联通,以数智技术为软联通,已建成覆盖全球200多个国家和地区物流网络。海外消费者从中国网购下单10天以内即可送达,运费仅相当于一杯咖啡价格。

In 2018, Alibaba Group's logistics arm Cainiao Network began the construction of the Grand Passage for International Logistics, using physical logistics infrastructure as the hardware connection and digital and intelligent technology as the software connection. At present, Cainiao Network's global end-to-end logistics network covers more than 200 countries and regions across the globe. Overseas consumers can receive packages for online shopping from China within 10 days with, shipping rate only as cheap as the price of a cup of coffee.

## 建设物流设施, 促进货通全球

菜鸟陆续建设一批全球数字枢纽eHub,在西欧、南美、东南亚等地设立国际分拨中心和海外仓,在波兰、西班牙、法国等地开设海外末端设施,已覆盖到24个欧盟国家,形成“海陆空”立体的国际干线,仅空运包机每月超过240架次;并与全球50多个港口建立智能清关对接。这些物流设施有效帮助中国制造出海,也促进市场融合发展。以列日eHub为例,在菜鸟eHub项目带动下,列日机场年处理包裹量增长1800多倍,成为欧洲最繁忙的货运机场之一。菜鸟全球网络日均处理超450万件跨境包裹,跻身全球四大跨境物流网络之一。

### Building logistics infrastructure to facilitate global cargo flows

With an aim to strengthen our end-to-end logistics capabilities, we continued to set up digital eHubs in China and overseas, as well as developing international distribution centers and overseas fulfilment facilities in western Europe, South America, Southeast Asia and other

locations. We have established a comprehensive international linehaul network that covers sea, land and air freight. When it comes to air cargo, we charter more than 240 cargo flights every month. We have set up last-mile facilities in overseas countries including Poland, Spain and France. We are able to carry out smart customs clearance in more than 50 ports around the world. All these logistics facilities help China's manufacturers to sell their products overseas effectively and promote integrated market development. Using our eHub in Liege, Belgium as an example, our digital infrastructure has helped to increase the volume of packages processed by a factor of more than 1,800, turning Liege into one of Europe's busiest airports for cargo transportation. Cainiao Global Network handles more than 4.5 million cross-border parcels per day, making it one of the world's four major cross-border logistics networks.

## 数智技术驱动, 提升全球物流效率

在跨境集运仓、eHub航空货站、国际分拨中心配备轻量化手持终端 (LEMO PDA)、精准射频识别技术 (RFID)、AI图像识别的智能安检系统、无人叉车机器人 (AGV)、智能合单、数字化“秒级通关”等技术后,重点国家端到端物流效率从60天提升到10天。

## 数字经济

*Innovative Development of the Digital Economy*

推动数字经济创新发展, 促进共同繁荣

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

### Using digital and intelligent technology to enhance global logistics efficiency

Across our facilities, including cross-order consolidation warehouses, eHub air cargo terminals and international distribution centers, we have adopted a variety of technologies. These include LEMO PDA, RFID, a smart security system supported by AI image identification, AGV, smart order consolidation and digital customs clearance that can be completed in seconds. With these technologies, we have been able to greatly enhance end-to-end logistics efficiency in key countries from 60 days to just 10.



菜鸟智能仓储系统

*CAINIAO warehouse management system*



菜鸟无人车

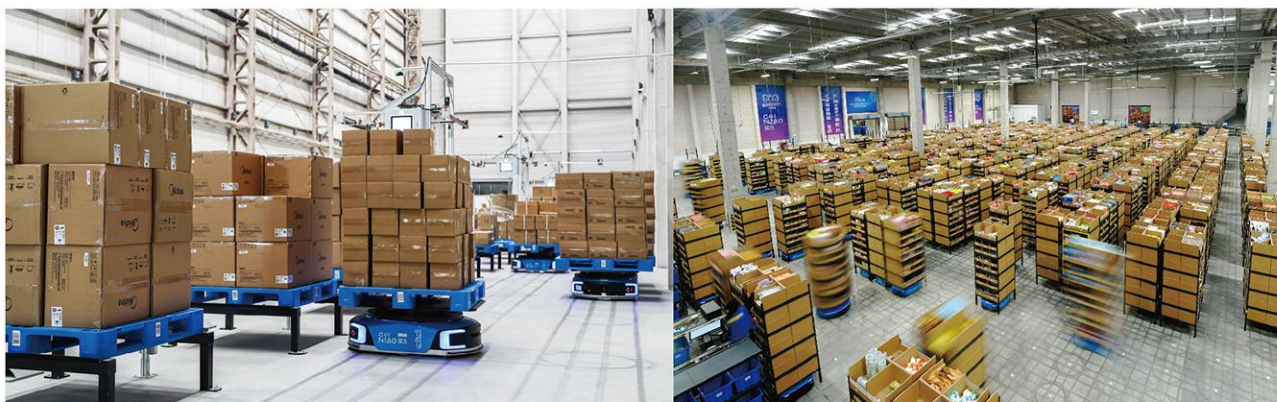
*CAINIAO logistic vehicle "Xiaomanlv"*

## 开放协作, 改善发展中国家物流短板

与东南亚和南亚地区11个国家的电商平台、快递物流企业协作, 投入600多名技术人员, 帮助当地进行物流系统升级改造, 将峰值包裹处理能力提高10倍, 可保障日均上亿级的包裹量运行。助力泰国快递企业建成东南亚规模最大自动化仓, 在巴基斯坦帮助当地建设数字化快递分拨中心。

## Embracing open collaboration to improve logistics in developing countries

Through collaborating with e-commerce platforms and delivery and logistics companies, and deploying more than 600 technological personnel, we helped 11 Southeast Asian and South Asian countries upgrade their logistics systems. These countries increased package processing capacity by a factor of 10, securing the ability to transport more than 100 million packages, on average, every day. We have helped Flash Express in Thailand to build the largest automated warehouse in Southeast Asia, as well as helping to build digital package distribution centers in Pakistan.



菜鸟智能仓储系统

CAINIAO warehouse management system

# 2018-2021车联网跨产业互联互通系列应用示范活动

## 2018-2021 Series of Cross-industry Cellular-Vehicle to everything Interoperability Application Demonstration Activities

**申报机构:** 中国信息通信研究院

**Applying Institution:** China Academy of Information and Communications Technology

**参与机构:**

中国智能网联汽车产业创新联盟、中国汽车工程学会、上海国际汽车城(集团)有限公司、  
全国汽车标准化技术委员会、中国通信标准化协会、  
交通运输部公路科学研究院、先导(苏州)数字产业投资有限公司

**Participating Parties:**

China Industry Innovation Alliance for the Intelligent and Connected Vehicles (CAICV),  
China Society of Automotive Engineers (CSAE), Anting, Shanghai International Automobile  
City, National Technical Committee of Auto Standardization (NTCAS), China Communica-  
tions Standards Association (CCSA), Research Institute of Highway Ministry of Transport  
(RIOH), Pioneer (Suzhou) Digital Industry Investment Co., Ltd.

**案例涉及的国家 and 地区:** 中国、德国、美国、法国

**Countries and Regions Covered or Involved in the Implementation:**

China, Germany, United States, France



## 全球企业协同开展车联网技术应用实践, 携手构建更加安全绿色的出行服务

Global companies cooperate in the application of Cellular-Vehicle to everything technology to build safer and greener travel services

车联网C-V2X技术是实现“车与车、车与路、车与云、车与人”全方面连接的关键载体, 是促进智能网联汽车与智慧城市协同发展的基础底座, 全球企业积极投入, 旨在推进车辆行驶更加安全、交通出行更加绿色。

The Cellular-Vehicle to everything technology is the key carrier to realize the all-around connection between vehicles and vehicles, vehicles and roads, vehicles and cloud storage, and also vehicles and pedestrians. It is the foundation for promoting the coordinated development of intelligent and connected vehicles and smart cities. Global companies are actively engaged and are aiming to promote a safer driving environment and greener transportation.

### 实现“跨芯片模组、跨终端、跨整车、跨安全平台”的全方位技术验证, 助力车联网新产品研发成熟

互联互通是车联网C-V2X技术应用的核心前提, 不同品牌的汽车之间、车辆与不同地区的路侧基础设施之间, 都需要采用同样的“语言”实时通信交互。系列活动有效推进200余家来自全球的汽车、通信、交通等跨行业企业, 协同解决C-V2X技术在芯片模组、终端、整车等不同层面存在的互联互通问题。系列活动支持近百款终端设备完成标准一致性和互操作测试, 助力数十款车型实现车车、车路应用验证, 在安全方面实现了可信身份认证机制验证, 开展了高精度地图和高精度定位等融合应用验证, 系统性助推车联网新功能验证成熟, 多家主流车企推出搭载车联网功能的新一代量产车型。

Realize the comprehensive technical verification of "cross-chip modules, cross-terminals, cross-vehicles, and cross-security platform", and help the development and maturity of new products of the Cellular-Vehicle to everything.

Interoperability is the core premise of the application of C-V2X technology, and the same "language" real-time communication interaction needs to be used between different brands of vehicles and between vehicles and roadside infrastructure in all regions. The series of activities effectively promotes more than 200 cross-industry companies from all over the world such as automotive, communications, and transportation, in which it collaboratively solves the interoperability problems of C-V2X technology at different levels including chip modules, terminals, and vehicles. The series of activities supports nearly 100 type terminals to complete standard consistency and interoperability tests, helps dozens of models to achieve vehicle and vehicle, vehicle, and roads application verification. It realizes the verification of trusted identity authentication mechanism in terms of security, carries out high-precision map and high-precision position and other fusion application verification, systematically promotes the maturity of the new function of the Cellular-Vehicle to everything. A number of mainstream vehicle companies have launched a new generation of mass production models equipped with the function of the Cellular-Vehicle to everything.



车车/车路实时通信交互示意图

*Schematic Diagram of V2V/V2I Real-time Communication Interactions*

## 车联网新型基础设施建设的“铺路石”

系列活动中着重展现了“前向碰撞预警”“绿波车速引导”“路侧感知信息共享”等车路协同应用功能。在中国上海、苏州、无锡、武汉等地区,实现了交通信号机、摄像头、信息平台等交通基础设施与路侧通信设备(RSU)的实时信息交互,赋能网联车辆通过车载通信设备(OBU)获取实时交通状态信息,辅助车辆安全驾驶。一汽、东风、长安、广汽、长城、吉利、蔚来、奥迪、宝马、通用、福特、日产、标志雪铁龙等全球车企积极参与,为来自全球的专业人士和社会观众,提供实车试乘体验一万余人次,搭建产学研用多方交流平台,助推多个地区加速车联网基础设施建设,探索多方主体协作运营模式,为跨行业协同应用部署提供关键样板。

### The "stepping stone" of the new infrastructure construction of the Cellular-Vehicle to everything

The series of activities focused on displaying Vehicle Infrastructure Cooperative application functions such as forward collision warning, green wave speed guidance, and roadside perception information sharing. In Shanghai, Suzhou, Wuxi, Wuhan and other regions of China, this series of activities realized real-time information exchange between traffic infrastructures such as traffic signals, cameras, information platforms, and roadside communication units (RSU), enabling connected vehicles to

communicate through the on-board communication unit (OBU) to obtain real-time traffic status information to assist vehicles in safe driving. FAW, Dongfeng, Changan, GAC, Great Wall, Geely, NIO, Audi, BMW, GM, Ford, Nissan, Peugeot Citroen and other global vehicle companies actively participated in the activities providing real car test ride experiences for professionals and social audiences from all over the world more than 10,000 times. We have built a multi-party exchange platform for industry, academia, and research to accelerate the construction of Cellular vehicles to everything infrastructure in many regions, explore a multi-party collaborative operation model, and provide a key model for cross-industry collaborative application deployment.



车联网跨产业互联互通系列应用示范活动功能逻辑及路侧基础设施示意图

*Schematic of Series of Cross-industry Cellular-Vehicle to everything Interoperability Application Demonstration Activities Functional Logic and Road Infrastructure*

## 推动国际社会形成车联网产业发展共识

IMT-2020 (5G) 推进组C-V2X工作组发挥纽带作用,与5G汽车联盟(5GAA)、德国汽车工业协会(VDA)等国际组织对话合作,联合主办系列活动,共同邀请全球200余家车联网企业参与技术验证。集众智合众力,形成车联网C-V2X发展路线图,明确政策规划、技术标准、产品研发、产业推广路径节奏,凝聚产业链上下游协同发展合力。系列活动助推车联网C-V2X技术标准和产业发展形成全球共识,5G汽车联盟(5GAA)在德国、美国组织开展相同技术路径的应用示范,旨在以人为本,推进打造更加安全、便捷、绿色的交通出行环境。

Promote the international community to form a consensus on the development of the Cellular vehicle to everything industry

The C-V2X Working Group of the IMT-2020 (5G) Promotion Group plays a role as a link. Dialogues cooperation with international organizations such as the 5G Automotive Alliance (5GAA), the German Association of the Automotive Industry (VDA), and also co-hosted a series of activities, and jointly invited more than 200 companies from all over the world to carry out technical validation. It also gathers all wisdom and strength to form a C-V2X development roadmap, clarifies policy planning, technical standards, product R&D, and industrial promotion path rhythm, and condenses the synergistic development of the upstream and downstream of the industry chain. The series of activities have helped to form a global consensus on the C-V2X technical standards and industrial development. The 5G Automobile Alliance (5GAA) has organized application demonstrations of the same technology path in Germany and the United States, aiming to be people-oriented and promoting the creation of a safer, more convenient, and greener traffic environment.



国内外车联网行业专家参观活动现场图  
Domestic and Foreign Cellular-Vehicle to everything Industry Experts Visited the Activity





数字经济

*Innovative Development of the Digital Economy*

推动数字经济创新发展, 促进共同繁荣

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

# 学习管理系统在中国和欧洲的变化

## The Development of LMS within China and Europe

申报机构: FRENTIX GmbH

**Applying Institution:** FRENTIX GmbH

案例涉及的国家地区: 瑞士、德国、中国、英国

**Countries and Regions Covered or Involved in the Implementation:**

Switzerland, Germany, China, United Kingdom



在全球经济共享时代下, 数字共享已成为跨时空的重要纽带。在技术日新月异的当下, OpenOlat已深耕行业二十三载, 凭借着多年的积累, 逐渐在全球范围内实现完全开源的在线学习的管理系统, 在后疫情时代呈现了居安思危、未雨绸缪的“新”开源精神---网络空间命运共同体。

Introduction: In this era of global sharing economy, digital sharing has become an important link across time and space. OpenOlat has been developing for the past 23 years. It has gradually formed a global-scale open source online learning and management system under the rapid technological breakthrough and precipitation. Especially during post-epidemic era, it perfectly presents a new open source spirit “Community of Shared Future in Cyberspace”.

## 从OLAT到OpenOlat, 23载孕育世界一流在线学习管理系统

1999年, 苏黎世大学率先使用PHP语言开发出了一个内部教学系统管理工具, 并将其命名为OLAT (Online Learning and Training)。当时, 此工具仅用于计算机系内部教职员工的的活动管理和学生的学习材料管理。到2004年, 系统的开发语言由PHP转到Java后, OLAT平台的源代码开始对外公开, 并正式成为苏黎世大学的战略学习管理系统。2009年, 中国的互联网公司和一些大学开始使用此系统作为内部在线学习平台。到2010年, OLAT内部发生了一些变化, 其中最重要的一个事件是OpenOlat的诞生, 它继承了“网络空间共同体”共创、共享、公利的发展理念, 使得开源在线学习管理系统的生命得以延续发展。

For the past 23 years, OLAT have developed to OpenOlat to build a world-class online learning management system.

OLAT is an acronym for Online Learning and Training. It is a web application (a so-called Learning Management System) that supports any kind of online learning, teaching, and tutoring with few educational restrictions. OLAT development started in 1999 at the University of Zürich. This application was adopted by Faculty of the Computer Science and used to manage students' learning materials. In 2004, OLAT officially became the strategic learning management system of the University of Zurich. Since then, it has expanded to the world covering America, Europe, Australia, and Asia. In 2009, Chinese internet companies and some universities started using the system as an internal online learning platform. By 2010, some changes had taken place within OLAT which one of the most important events was the birth of OpenOlat. It inherits the development concept of "cyberspace community" of co-creation, sharing, and public interest which makes the life of the open source online learning management system continue to develop.



OLAT源码全球每日下载分布图

OLAT source global daily download distribution map

## 先进的技术架构为OpenOlat的实用性提供有力保障

OpenOlat可用于实现多元化的教育内容, 组织学习者进行自我学习, 并完整记录学习者的学习行为和结果。系统通过最先进的技术架构, 融合了教育学、学习心理学、媒体研究和教学法领域的最新研究成果和评估技术, 保证用户的实际学习体验。

依托先进的技术机构, OpenOlat平台在领域内应用极其广泛。教育组织和管理机构可以随时随地组织学生协作、组织测验和考试以及管理学生档案的存储。很多高校也已将其用于知识共享、小组项目和项目组合管理等场景。企业则可以使用它来实现信息和知识的创造以及传递, 并进行合规培训, 以实现不同层次的商业价值。



### Advanced technical architecture provides a strong guarantee for the practicability of OpenOlat

OpenOlat can be used to deliver educational contents, and organize and assign users to courses which can be learned, assessed, communicated, and shared. Moreover, it is possible to have all these functions in one system directly in the web browser without installing any additional applications or tools. OpenOlat incorporates the latest findings from the fields of education, learning psychology, media studies, and pedagogy. It has been built using state-of-the-art technology while maintaining a focus on the learning experience. OpenOlat is widely used everywhere, and schools use it to enable student collaboration, take quizzes and exams, and store data. Colleges and universities also use it for knowledge sharing, group projects, and portfolio management. It is used by companies to provide information and knowledge sharing, and to conduct compliance training and to realize the different levels of value for small and medium sized enterprises or MNC companies.

Course	Progress	Passed	Score	Cert/Exts	Assessments	Lectures	Attended	Absent
Kurs mit Testergebnis	100%	Passed			3 of 3			
Kurs Testen oder nicht?	100%	Passed						
Kurs Tests mit L&L&S	100%	Passed						
Copy of LPK Testanden oder nicht?	100%	Passed	13	1/5/2020.pdf	4 of 4			
Kurs Validity Testresults	100%	Passed	40	1/10/2020.pdf	10 of 10			
LPK Testanden oder nicht?	100%	Passed	8	16/12/2020.pdf	3 of 3			
Kurs Prüfungsinhalt	100%	Passed						
Langfrist Testanden wert?	0%	Failed	12	16/09/2020.pdf	2 of 2			
Fließleiter	0%	Failed	0					
Kurs beherrschte system	0%	Failed	0					
Gesamtwissen	0%	Failed	0	1/10/2019.pdf	1 of 1			
Copy of Kurs Testresults Sich Dank!	0%	Failed	0		8 of 8			
Kurs Gruppenarbeit	0%	Failed	0					
Flussdiagramm	0%	Failed	0					
Zertifizierung IA	0%	Failed	0		3 of 3	24	24	0
Kurs Einzelübung	0%	Failed	0					
Test Drawing	0%	Failed	0					
Kurs mehrere Testversuche	0%	Failed	0		1 of 2			
SP 10 Testandenwert Vorlage TEST	0%	Failed	0					
Kurs Statistik Test	0%	Failed	0					

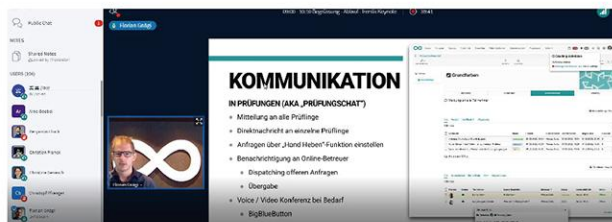
## 2022 “OO Talks”为数字教育注入可持续发展活力

疫情将传统教育一夜之间从线下转移到线上, 全世界都开始重新审视教育的传统途径。而后疫情时代, 受全球数字化产业迅猛发展的影响, 很多行业也开始逐步实行远

程在线办公,而OpenOlat(OO)的持续发展和扩张也顺理成章。2022年,OO Talks会议就如何利用智能平台将课程设计、测试系统、测试规则、管理等模块做数字化整合进行了深入研讨,这将极大地推动教育资源的全球共享以及教育资源在数字化转型中的高效运作。由于其技术的无边界性,OpenOlat(OO)也将致力于企业管理与运营的领域,为企业更高效、更节约的发展提供解决思路。

2022 "OO Talks" have been bringing sustainable development vitality into digital education.

The pandemic has transformed education from offline to online overnight, making the world re-examine the traditional way of education. In the post-epidemic era, many industries have discovered remote working systems. In addition to that, the rapid development of the global digital industry has contributed to the continuous growth and expansion of OpenOlat(OO). In 2022, the OO Talks conference will discuss how to use the intelligent platform to digitally integrate and deploy curriculum design, testing systems, testing rules, management, and other necessary aspects which will greatly promote the global sharing of educational resources and the efficient operation of education in digital transformation. Due to the borderless nature of its technology, it will also devote itself to the fields of corporate management and operation and provide technical support for corporates in more efficient and economical ways.



## 立足中文世界, 打造教育、企业资源共享生态圈

OpenOlat平台运营始终秉持开放和包容的态度,受到了瑞士、德国、英国、中国等地区的接纳和使用,目前完成了面向15国的系统版本V17.02,中国团队也已完成了大部分中文的翻译工作。基于其强大的功能和广泛的用途,学校机构、在线教育平台、各类企业均可以借助其构建完善的教学体系、考试体系和学习管理体系,从而创造和外界共享交流的机会。



Establish a presence in the Mandarin-speaking market and create a resource-sharing ecosystem for education and businesses.

OpenOlat has always been open and tolerant to the versions adopted by other countries including Switzerland, Germany, Britain, China, etc. and has maintained the versions 17.02 of 15 countries. At the same time, the Chinese team has completed most of the Chinese translations. Based on its wide range of uses and functions, schools, institutions, online education platforms, and various enterprises can use it to build a complete teaching, examination and learning management systems, and create opportunities to share and communicate with different industries.

# “丝路电商”云上大讲堂

## "Silk Road E-commerce" Online Lectures

申报机构：中华人民共和国商务部

Applying Institution: Ministry of Commerce of the People's Republic of China

案例涉及的国家 and 地区：卢旺达、巴西、智利、哥伦比亚、巴拿马、阿根廷等18个国家和地区

Countries and Regions Covered or Involved in the Implementation:

18 countries and regions such as Rwanda, Brazil, Chile, Colombia, Panama, Argentina



“丝路电商”构建数字合作格局

"Silk Road E-commerce" creates a new digital cooperation paradigm

## 共商共建“丝路电商”, 互利共享数字经济发展。

"Silk Road E-commerce" shares the development of digital economy for mutual benefit through extensive consultation and joint contribution.

中国国家主席习近平自2021年以来, 多次在重要场合强调“发展丝路电商”, 充分发挥中国技术应用、模式创新和市场规模等优势, 拓展经贸合作领域、促进对外开放。截至目前, 中国已与五大洲23个国家建立了双边电子商务合作机制, 在金砖国家、上海合作组织、中国-中东欧国家、中国-中亚五国等多边及区域框架下建立了电子商务合作对话机制, “丝路电商”已成为多双边经贸合作的新亮点, 高质量共建“一带一路”的新引擎。

Chinese president Xi Jinping has emphasized the "development of Silk Road E-commerce" on many important occasions since 2021 to actively expand the fields of economic and trade cooperation and promote the opening to the outside world by utilizing China's advantages in technology application, model innovation and market scale. Up to now, China has established bilateral e-commerce cooperation mechanisms with 23 countries from five continents and formed multilateral e-commerce cooperation mechanisms under the multilateral and regional frameworks. These are BRICS, Shanghai Cooperation Organization, China-Central and Eastern European Countries, and China-Central Asian Countries. "Silk Road E-commerce" has become a new highlight of the bilateral/multilateral economic and trade cooperation, and a new engine for high-quality joint construction of the "Belt and Road".

## 中卢合作开创“丝路电商”能力建设新模式

2020年, “丝路电商”伙伴国卢旺达向中方提出电子商务培训需求。商务部高度重视, 认真筹划, 采用“线上直播+跨国实时互动”的先进形式, 创办“丝路电商”云上大讲堂。经多轮磋商, 中卢双方围绕卢旺达企业关心的数字营销、农产品电商、电商平台、电子支付等热点话题确定课程大纲, 精选兼具理论与实践经验的资深行业专家在线授课20场次, 来自卢旺达政府、智库和企业的近2500人次在线学习交流。卢旺达驻华大使馆和卢旺达发展局专门在活动结束后, 分别以致信和视频方式, 就云上大讲堂为卢旺达政企赋能向中方表达了由衷感谢。

## China-Rwanda cooperation creates a new model for "Silk Road e-commerce" capacity building

In 2020, Rwanda, a partner country of the "Silk Road E-commerce", expressed its need of receiving e-commerce training for its government officials and industrial practitioners from China. Through careful planning, the Ministry of Commerce established the "Silk Road E-commerce" Capacity Building Online Lectures via "live stream and cross-border real-time interaction". After rounds of discussions, China and Rwanda finalized the syllabus covering hot topics interested by Rwandan enterprises such as digital marketing, agricultural product e-commerce, e-commerce platform, and electronic payment. 20 lectures were given by expert lecturers with profound theoretical and practical experience and attended by around 2,500 audiences from the Rwandan government, think-tanks, and companies. After the event, the Embassy of Rwanda in China and the Rwanda Developing Board expressed their sincere appreciation of the online lectures through letter and video messages for empowering their e-commerce capacity.

## 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity



讲师授课

Lecturers on site



幕后花絮

behind the scenes

## 云上大讲堂影响力享誉“丝路电商”朋友圈

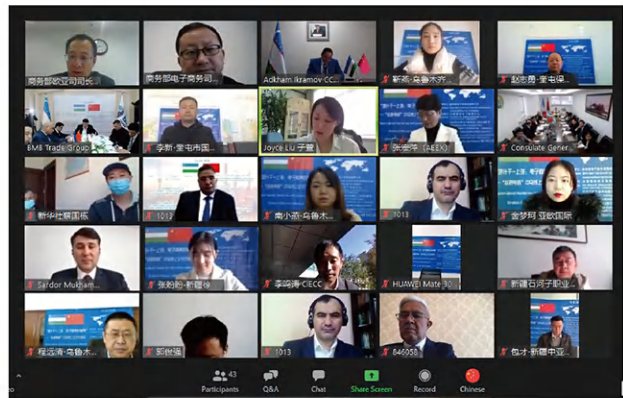
继云上大讲堂卢旺达专场后, 伙伴国驻华使馆纷纷表达了合作意向。经项目团队与智利、阿根廷、巴西、哥伦比亚、巴拿马、乌拉圭、乌兹别克斯坦等伙伴国驻华使馆调研需求后, 相继举办了智利红酒营销、乌拉圭投资、拉美国家和乌兹别克斯坦国家专场等系列活动。

## Online lectures gained popularity among "Silk Road E-commerce" partner countries

After the success of the Rwanda session of the online lectures, the embassies of partner countries in China also expressed their intentions to cooperation. The project team made efforts to confirm needs with the embassies of Chile, Argentina, Brazil, Colombia, Panama, Uruguay, Uzbekistan, and other countries in China, and successively held special sessions on Chilean wine e-commerce marketing, investment in Uruguay and special sessions for Latin American countries and Uzbekistan.

根据中国国务院总理李克强在上海合作组织成员国政府首脑(总理)理事会第二十次会议上提出的“举办云讲堂”重要合作举措, 商务部会同上合组织秘书处, 精心策划筹备, 广泛邀请, 于2022年6月20-24日举办了“丝路电商”云上大讲堂上合组织专场, 近500人次在线学习交流, 反响热烈。

According to the important initiative to "hold online lectures" proposed by Chinese Premier Li Keqiang at the 20th meeting of the Council of Heads of Government (Prime Ministers) of the Member States of the Shanghai Cooperation Organization, the Ministry of Commerce joined hands with the Secretariat of Shanghai Cooperation Organization to organize the SCO Special Session of "Silk Road E-commerce" Online Lectures from June 20 to 24, 2022. 500 people studied online and the lectures have obtained unanimous praise.



乌兹别克斯坦在线培训

Online Lectures for Uzbekistan



有关国家及国际组织代表致辞

*Remarks by representatives from SCO, China, Uzbekistan, Rwanda, etc.*

## “云上大讲堂”促进全球民心相通

自2020年四季度以来,“丝路电商”云上大讲堂已举办41场,来自20余个国家的6000余人参与培训,专属平台的视频回看超10万人次,在加强多双边电子商务政策交流、经验分享和产业对接,提升发展中国家和不发达国家电子商务专业知识与操作技能等方面发挥了积极作用,释放了贸易合作潜能。得益于“云上大讲堂”培训,2021年“第三届双品网购节”期间,主要电商平台上的“丝路电商”伙伴国商品网络零售额均显著增长,阿根廷商品交易总额在天猫国际进口平台上同比增幅高达6228%;智利的一款干红葡萄酒跃居苏宁易购平台葡萄酒品类销量第一。2022年的“上合组织国家特色商品电商直播活动”中,乌兹别克斯坦的8款产品成为“国别爆款”。2022年“第四届双品网购节暨非洲好物网购节”期间,来自主要电商平台上的20余个非洲国家200余款商品网络销售额同比均显著增长,其中卢旺达、埃及、苏丹、乌干达等18个国家的特色产品网络零售额同比增长超50%。“丝路电商”云上大讲堂为共享数字经济发展红利,促进全球民心相通开创了有效的新模式。

## "Silk Road E-commerce" Online Lectures promote people-to-people diplomacy and mutual understanding globally

Since the fourth quarter of 2020, the "Silk Road E-commerce" Online Lectures has held 41 live-stream sessions with a cumulative number of more than 6,000 participants from 20 countries and over 100,000 views of videos on the exclusive platform. The "Silk Road E-Commerce" Online Lectures has played an active role in strengthening the bilateral/multilateral exchanges and experience sharing on e-commerce policies, enhancing e-commerce expertise and practical skills of practitioners in developing and underdeveloped countries to release the potential for trade cooperation which has brought significant gains for partner countries. During "The 3rd Brand & Quality Online Shopping Festival" in 2021, the online retail sales of goods from partner countries in major e-commerce platforms increased significantly. The total value of Argentina's commodity transactions on the Tmall international import platform increased by 6,228% on a year-on-year basis, the sales of red wine from Chile ranked No.1 in the wine category on Suning.com platform. During the "E-commerce Livestreaming Event of Featured Products from SCO countries" in 2022, 8 products from Uzbekistan became bestsellers. "The 4th Brand and Quality Online Shopping Festival and Quality African Products Online Shopping Festival" witnessed a significant yearly increase in sales of more than 200 products from more than 20 African countries on major e-commerce platforms. Online retail sales of specialties from 18 countries including Rwanda, Egypt, Sudan, and Uganda reached a year-on-year increase of over 50%. "Silk Road E-commerce" Online Lectures create a new model for sharing the dividends of digital economic development, enhancing people-to-people diplomacy, and cultural understanding on a global scale.



非洲好物节驻华使节致辞

*Remarks from African diplomats for Quality African Products Online Shopping Festival*



# 国际数据空间创新实验室

## International Data Space Innovation Lab

**申报机构:** 深圳数据交易所有限公司、华为云、数鑫科技

**Applying Institution:**

Shenzhen Data Exchange, Huawei Cloud, Shenzhen Shuxin Technology Co., Ltd.

**案例涉及的国家 and 地区:** 中国、德国、法国等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, Germany, France



国际数据空间创新实验室由深圳数据交易所有限公司、华为云、数鑫科技共同发起, 主要聚焦孵化并构建国家级数据交易所需要具备的全球领先、自主知识产权、安全、可信、可控、可追溯的数据流通技术体系, 借鉴国际数据空间(International Data Space,简称 IDS)先进理念和参考架构的同时, 充分融合现有数据流通产业特点、行业应用场景、数据保护及交易法规等。实验室致力于“三位一体”的定位, 包括中国生产的自主可控数据空间技术体系孵化基地, 多技术、多场景融合应用创新中心, 数据流通领域产学研联动发展样板。

International data space innovation lab is initiated by Shenzhen Data Exchange, Huawei Cloud, Shenzhen Shuxin Technology Co., Ltd, and mainly focuses on incubating and building the global leading, safe, reliable, controllable, and traceable data circulation technology system required by the national organization of data exchange. It fully integrates the characteristics of the domestic data circulation industry, industry scenarios applied, and data protection and transaction regulations, etc. The laboratory is committed to the positioning of "Trinity", including the first domestic incubation base for an independent and controllable data space technology system in China, a multi-technology and multi-scenario integrated application innovation center.

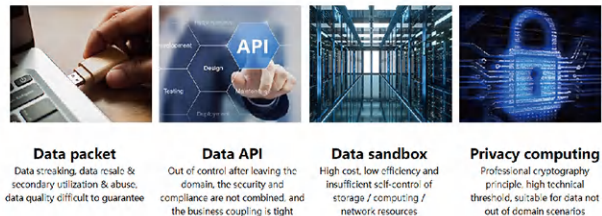
在中国, 通过调研发现, 有近八成企业表示传统数据包、数据API、隐私计算等技术解决“数据来源可确认, 使用范围可界定, 流通过程可追溯, 安全风险可防范”等数据流通问题存在不足。

In China, according to the survey, nearly 80% of the enterprises indicated that the traditional data package, data API, privacy computing, and other technologies were insufficient to solve the data access problems such as "the data source can be confirmed, the use range can be defined, the circulation process can be traced, and the security risk can be prevented".

## 现有数据流通技术存在的不足

现有数据流通方式分析如下:

- 数据包, 一般采用U盘拷贝、网站文件下载等做法, 存在数据转售、二次利用、数据滥用、数据质量难于保障等风险。
- 数据API, 中国主流API市场(集市、商城)、企业IT系统间接口采用该方式。存在非法留存接口数据、网络爬虫爬取大量数据、身份认证及授权、回溯取证、第三方管理等问题。
- 隐私计算, 基于严苛数据加密安全技术, 面临多技术流派标准无法统一、技术门槛较高(程序编写、算法开发、调试、维护等)、适用场景比较有限等问题。



数据流通方式  
Data flow mode

### The shortcomings of existing data flow technology

The existing data circulation mode is analyzed as follows:

- Generally, the data package adopts the methods of U disk copying and website file downloading, and there are risks such as data resale, secondary utilization, data abuse, and data quality difficult to guarantee.
- Data API: this method is adopted for the interface between domestic mainstream API markets (bazaars, shopping malls) and enterprise IT systems. There are many problems such as illegal retention of interface data, web crawlers crawling a large amount of data, identity authentication and authorization, backtracking and forensics, and third-party management.
- Privacy computing, based on strict data encryption and security technology, faces problems such as the standards of multiple technical schools cannot be unified, the technical threshold is high (program writing, algorithm development, debugging, maintenance, etc.), and the application scenarios are relatively limited.

国际数据空间技术通过数据流通过程控制, 保障数据提供方权益, 可以有效解决以上问题。

International data and space technology can effectively solve the above problems by ensuring the rights and interests of data providers through the control of data circulation process.

### 国际数据空间实验室目标及推进计划

创新实验室预计在2022年9月推出中国第一个自主知识产权的国际数据空间产品, 并完成1-2个数据流通交易试点场景全链路业务验证。届时也将通过中国信息通信研究院与欧洲IDS标准技术体系进行基础性对接, 为下一步实现跨境数据流通交易场景打下坚实基础。同步将启动产学研联合计划, 拓展高校、研究所参与实验室。

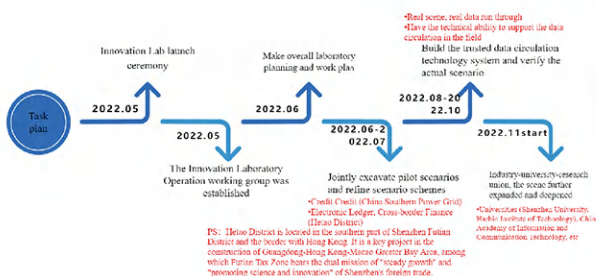
2022年底预计达成目标:

- 落地2个数据流通与交易业务、合规规则融合的数据流通交易场景;

- 构建起真正支撑场内规模交易的可信数据流通技术体系;
- 完成产学研联合模式机制建立。

### International data space innovation lab's objectives and plans for advancement

The innovation laboratory is expected to launch the first international data space product with independent intellectual property rights in China in September 2022, and complete the full link service verification of 1-2 data circulation transaction pilot scenarios. At that time, the Institute will also conduct basic docking with the European IDS standard technology system through China Academy of Information and Communications Technology, laying a solid foundation for the next step to realize cross-border data circulation and transaction scenarios. At the same time, the joint plan of industry, University and research will be launched, and the participating laboratories of universities and research institutes will be expanded.



#### 关键任务计划

#### Mission Critical Planning

### 国际数据空间典型应用场景

国际市场上, 基于国际数据空间技术落地的应用场景十分丰富, 通过创新实验室可以借鉴到中国。

- 应用场景一: 生产协同数据空间, Boost4.0联盟的53个成员打造面向制造业的标准化欧洲工业数据空间, 实现用户数据、工厂数据等可信流通交换, 提高工厂整体设备效率、提高质量及减少维护获得, 实现对棕地工艺的优化。

· 应用场景二: 海事数据空间, SINTEF (挪威科技工业研究所)、Navtor公司基于IDS构建海事数据空间, 通过将所有参与者和平台汇集在一个可信可控的数据生态系统中, 共享交换船况、天气、货物等数据, 提供排放量、油耗和路线详情等值得信赖的增值服务。

Scenario 2: Maritime data space: SINTEF and Navtor build a maritime data space based on IDS. By gathering all participants and platforms in a trusted and controllable data ecosystem, they share and exchange data such as ship condition, weather and cargo, and provide reliable value-added services such as emissions, fuel consumption, and route details.

### Typical application scenarios of international data space

The technology of data space applied in the international market.

Scenario 1: production collaboration data space. The 53 members of the boost 4.0 alliance create a standardized European industrial data space for manufacturing, realize the trusted circulation and exchange of user data, factory data, and others, improve the overall equipment efficiency, improve quality, reduce maintenance gains, and realize the optimization of brownfield process.



## 水滴筹:用科技推动爱心高效流动, 保障百万家庭

**Waterdrop Fundraising: Utilizing technology to facilitate efficient transmission of kindness and to protect millions of families**

**申报机构:** 北京健康之家科技有限公司

**Applying Institution:** Waterdrop.Inc

**案例涉及的国家 and 地区:** 中国、泰国、越南、印尼

**Countries and Regions Covered or Involved in the Implementation:**  
China, Thailand, Vietnam, Indonesia



## 水滴筹利用互联网技术将民间“互助互济”行为搬到社交网络, 推动社会爱心高效传递、为世界数十个国家/地区的百万困难人群构筑生命保护网。

Waterdrop Fundraising utilizes internet technology to bring the act of “mutual help” to social media networks, which has facilitated the efficiency of passing on acts of kindness, to build a safety net for millions of people in need in dozens of countries and regions in the world.

从世界范围来看, 大部分普通家庭依然存在罹患重大疾病引发家庭财政危机的风险。尤其是偏远地区的人民, 缺乏有效的社会保障, 当他们遭遇大病、意外伤害等, 常常会因为家庭困难而不得不放弃治疗、甚至放弃生命。

From a global perspective, most ordinary families are still at risk of financial crisis caused by major illnesses. People in remote areas especially lack social security. When they encounter major illnesses or accidental injuries, they often have to give up treatment or even give up their lives because of financial difficulties.

### 百余人线上爱心接力筹得一亿三千万越南盾为白血病小女孩带来生的希望

2021年6月的平凡夏日里, 一向活泼可爱的Lê Nguyễn Uyên Nhi突然发了持续一周的高烧。心急如焚的父母把她送到医院后, 得知了噩耗——孩子被诊断患上白血病, 需要至少一亿3千万的治疗费。

走投无路的一家人得知DeeDa平台后, 选择通过线上筹款的方式向社会各界爱心人士求助。DeeDa通过科技赋能实现高效的筹款触达, 精准定位捐款意向人群, 降低捐款难度, 在短短三个月内筹得巨款, 为一家解决了燃眉之急。

如今, Lê Nguyễn Uyên Nhi正在积极地接受治疗, 其父Lê Văn Mâu因为认同DeeDa的使命, 也作为筹款顾问加入了DeeDa大家庭, 继续传递爱心。



### More than 100 people raised 130 million VND , bringing hope to the little girl with leukemia

In the seemingly ordinary summer of June 2021, the always lively and lovely Lê Nguyễn Uyên Nhi suddenly developed high fever that lasted for a week. After her distraught parents sent her to the hospital, they learnt the heart-breaking news that she was diagnosed with leukemia and required at least 130 million VND in treatment fees.

After hearing about DeeDa, the desperate family chose to seek help from kind donors through online fundraising. DeeDa was able to fundraise effectively through technology empowerment, by accurately pinpointing potential donors and simplifying donation methods. In just three months, the treatment fees are raised and the family's problem was solved.

Today, Lê Nguyễn Uyên Nhi is actively receiving treatment. Her father, Lê Văn Mậu, has also joined the DeeDa as a fundraising consultant family to continue to spread love, because he resonates with DeeDa's mission.



### 重症女孩病愈后攒钱退还救助款, 将爱心继续传递

2019年5月, 从小便患有肌无力等疾病、长期接受治疗的中國新疆女孩苗彥彥突发支气管感染, 呼吸衰竭, 被紧急送进医院。多年治病导致她的家庭已拿不出足够的治疗费,

只好在水滴筹上发起求助。在互联网科技加持下, 短短几天求助项目迅速链接到3565位好心人, 共为她捐助了12.6万元救命钱, 帮助她及时顺利接受手术治疗、度过难关。

### Seriously ill girl receives social aid, saves money to return the funds raised after recovering to pass on the love

In May 2019, Miao Yanyan, a Chinese girl from Xinjiang who suffers from myasthenia gravis and other diseases, was admitted to the hospital with a sudden bronchial infection and respiratory failure. She no longer had sufficient money for treatment as years of medical treatment had depleted her savings. With no other option, she launched a request for help on Waterdrop Fundraising. With the support of Internet technology, the project quickly garnered the attention of 3,565 donors who donated 126,000RMB to help her get medical treatment in time to overcome adversity.

由于疾病导致声带萎缩麻痹, 苗彦彦无法说话, 她便通过网上销售新疆农产品努力攒钱。2021年8月, 经济情况有所好转的她联系水滴筹, 希望将善款退还给爱心人士。水滴筹平台通过数据溯源, 帮她将所有善款均精准、及时地原路一一返还, 助她将这份感恩慷慨回馈社会、赠与他人。

After completing her treatment, Miao Yanyan worked hard to save money by selling Xinjiang agricultural products online. In August 2021, when her financial situation improved, she contacted Waterdrop Fundraising to return the donations to the donors. The platform helped in data tracing and assisted her to return all the donations accurately, precisely and in a timely manner, allowing her to give back to society and to others.





## 水滴筹 (DeeDa) 助力全球公益事业, 获政要点赞支持

水滴筹 (DeeDa) 除了连接民间善意, 也和慈善组织、政府部门建立良好长期合作, 并得到各国政府、组织的大力支持。

### Dignitaries recognize DeeDa's contributions to global charity efforts

In addition to connecting personal goodwill, Waterdrop Fundraising has also established good long-term cooperation with charitable organizations and government departments, and has received strong support from various governments and organizations.

2019年10月18日, National Arthritis Foundation 2019慈善晚宴上, DeeDa运用科技实现对筹款目标的实时追踪, 并通过互联网技术提升社会爱心聚集效率, 该慈善项目在3小时内共筹集善款2万新币, 新加坡总统哈莉玛女士亦现场见证并支持。2019年4月, DeeDa支持慈善组织Free

Food For All项目, 为低收入群体募集和派发食物, 共筹集善款3034新币, 现任总理夫人何晶也点赞并转发DeeDa对该项目的宣传内容。2022年4月, DeeDa作为RDSS新加坡罕见病基金会的合作伙伴, 利用移动互联网技术为当地罕见病患者募集善款共计1.6万新币, 筹款效率提升30%, 新加坡国会议长陈川仁亦通过DeeDa捐赠善款。

On National Arthritis Foundation's Charity Gala Dinner on the 18th of October 2019, the Guest-of-Honor Mdm Halimah Yacob, President of Singapore, witnessed the live online donation supported by DeeDa's technology, where DeeDa tracked fundraising progress in real time and greatly improved efficiency of social aid. With the help of DeeDa, close to \$20,000 was raised within 3 hours. In April 2019, DeeDa supported the charity Free Food For All's fundraising campaign to collect and distribute food for low-income groups, raising a total of S\$3,034. The Prime Minister's wife, Mdm Ho Ching, liked and shared DeeDa's post featuring this campaign on social media. In April 2022, DeeDa, as a partner of RDSS Rare Disorders Society (Singapore), raised a total of S\$16,000 for local rare disease patients using mobile internet technology, increasing fundraising efficiency by 30%. Singapore's Speaker of Parliament Mr. Tan Chuan Jin also donated through DeeDa.



新加坡总统哈莉玛女士(中)在慈善晚宴上见证DeeDa提升社会爱心聚集效率

*Mdm Halimah Yacob, President of Singapore*



# 基于医疗大数据的精准新冠早筛及预警监测系统

## A Precise Early Screening and Population Surveillance System of COVID-19 based on Medical Big Data

**申报机构:** 腾讯医疗健康(深圳)有限公司

**Applying Institution:** Tencent Medical Healthcare (Shenzhen) Company Limited

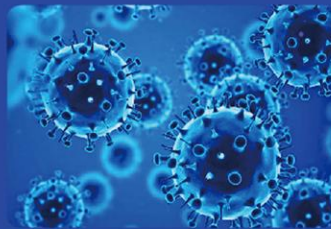
**案例涉及的国家 and 地区:** 中国、中国澳门、澳大利亚、尼日利亚、肯尼亚、埃塞俄比亚等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, Macau China, Australia, Nigeria, Kenya, Ethiopia

*A Precise Early Screening and Population Surveillance System of COVID-19 based on Medical Big Data*

*6 billion Global user visits  
code opensource with WHO  
Faster than PCR testing  
detect PCR false negatives*



Tencent Medical Healthcare (Shenzhen) Company Limited

腾讯医疗健康

## 基于医疗大数据进行精准新冠早筛及预警监测, 推动科技向善。

This project has produced a precise early screening and population surveillance system for COVID-19 based on medical big data, ensuring the use of science and technology for good.

为帮助民众正确自查新冠肺炎风险, 避免恐慌和不当求医造成交叉感染风险, 帮助疾控人员提供精准早筛、决策及流调支持, 腾讯使用互联网和医疗AI技术开发了新冠早筛及预警监测系统, 并向全球开源新冠肺炎AI自查助手。

This project has produced a precise early screening and population surveillance system for COVID-19. It enables the staff of the Disease Control Centre to accurately prevent, monitor, and control COVID-19 transmission, and provides citizens with online services about public education of the pandemic, self-examination of the COVID-19, and vaccine-related questions and answers.

## 新冠AI自查助手与WHO合作国际开源

疾控智能对话问诊系统在用户端应用已在疫情期间服务全球用户60亿人次, 腾讯健康实时疫情及新冠自查引擎模块国际版的源代码已通过Github开放, 供全球开发者使用, 累计访问量达18000+, 已在中国大陆、中国澳门、澳洲、非洲等国家/地区上线使用, 取得了巨大的社会效益。

### The COVID-19 AI self-inspection assistant is open source in cooperation with WHO

The application of the intelligent dialogue and consultation system for disease control has served 6 billion users worldwide during the pandemic. The source code of the real-time COVID-19 self-check engine developed in the Tencent Health App has been released on GitHub for developers around the world, which has so far accumulated more than 18,000 visits and has been in online use in the Chinese mainland, Chinese Macao, Australia, Africa, and others, demonstrating a huge social impact and scientific contributions we made to the field.

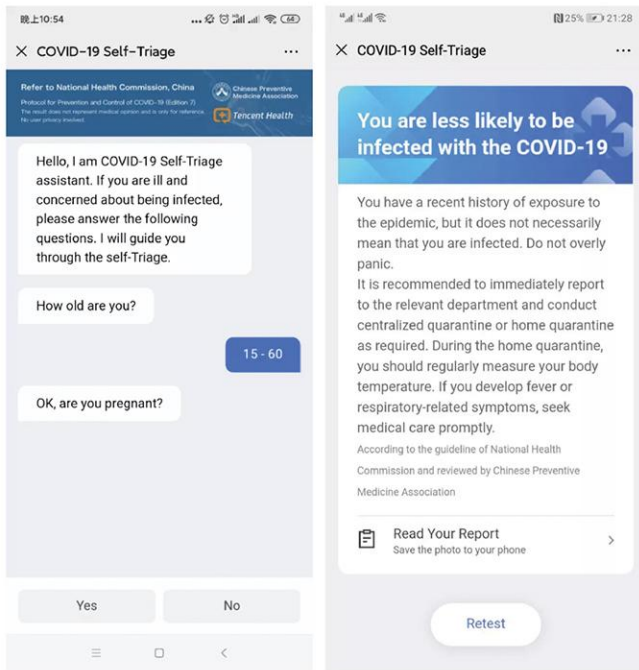


## 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity



新冠自查国际开源产品界面示例

COVID-19 self-check international open source product interface

## AI COVID-19 early screening is faster than nucleic acid testing

The system is one of a kind in the industry that can automatically diagnose patients in hospitals based on real-time electronic medical record data. It can accurately and efficiently screen out suspected COVID-19 patients within 4.8 hours on average and with an accuracy rate of 93%, faster than PCR testing and being able to supplement PCR results to identify false-negative COVID-19 patients. For example, by using this system, a PCR false-negative COVID-19 patient was detected 15 hours in advance, preventing further spread of the disease and highlighting the importance of supplementing the PCR test with our invention to help facilitate disease control and public health.



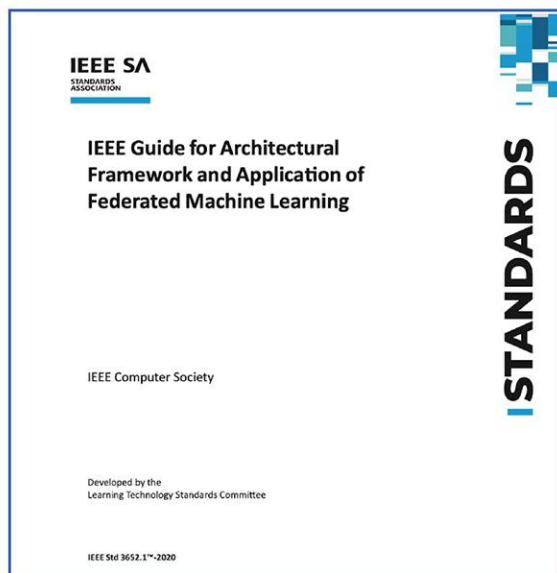
新冠早筛系统的页面示例

Sample page of the COVID-19 early screening system

## AI新冠早筛比核酸检测速度更快

精准新冠早筛引擎基于实时电子病历数据对医院就诊患者开展自动化筛查, 精准早筛出新冠疑似患者, 精确率达到93%, 比核酸检测速度更快并能够发现核酸假阴性新冠患者, 从就诊到该系统给出高风险预警信号平均耗时4.8小时, 此外, 该方案提前15小时发现了一例核酸假阴性新冠患者, 从而将高危疑似患者推送至疾控部门和公共卫生人员进行早期筛选、核实与判断。





## 技术领先引领国际标准

本案例累计发表录用国际人工智能顶级期刊/会议论文11篇, 我们共建并发布了首个IEEE联邦学习国际标准, 举办了国际比赛ICLR 2021 Workshop Challenge: Machine Learning for Preventing and Combating Pandemics, 推进了该领域的研究进展和学术交流。

### Advanced technology leads international standards

We have published 11 papers in top international journals and conferences. We have jointly built and released the first international IEEE federated learning standards. In addition, we held the international competition ICLR 2021 Workshop Challenge; Machine Learning for Preventing and Combating Pandemics (about 300 teams participated).

## 微软数字化员工体验平台

### Microsoft Viva Digital Employee Experience Platform

---

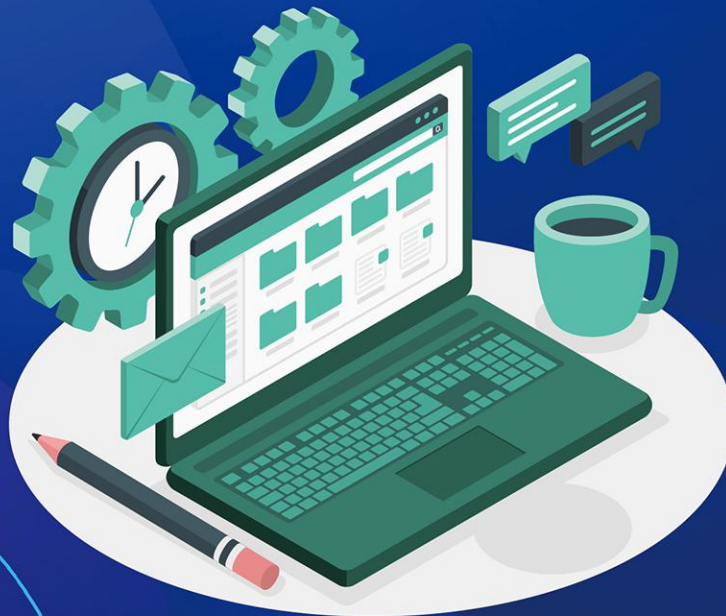
**申报机构:** 微软公司

**Applying Institution:** Microsoft

**案例涉及的国家 and 地区:** 德国、丹麦、澳大利亚、中国等11个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

11 countries and regions such as Germany, Denmark, Australia, China



## 微软Viva予力组织创造“以人为本”的数字化员工体验

Microsoft Viva empowers organizations to create people-centered digital employee experiences

后疫情时代伴随着“混合式办公”的新常态,在这个新趋势下,微软推出了数字化员工体验平台Viva,一个从未有过的科技产品品类,全方位地帮助企业提升员工个人能力、改善员工工作效率,同时提升员工工作期间的幸福指数。

Hybrid work has become the post-pandemic norm. Given this key trend, Microsoft introduced Viva, a new digital employee experience platform, fitting into an entirely novel category of tech products that are designed to empower organizations to upgrade their employees' skills, enhance their productivity, and improve their wellbeing.

### Viva的产品创新性体现在“五个重视”

与传统的人力资源产品相比,微软Viva更强调五个重视:重视企业文化、重视员工沟通、重视员工成长、重视员工幸福感、重视员工成就感。比如,企业高管可以通过微软Viva基于组织行为分析提供的洞察信息,及时了解员工过度加班的情况或跨部门协作的频次,并根据Viva给出的建议来采取行动改善状况。

Viva's innovativeness is seen in its five areas of focus

Compared to the traditional HR solutions, Microsoft Viva emphasizes on five key areas of focus. These are: organizational culture, employee communication, employee growth, employee wellbeing, and employee sense of achievement. For example, senior management can use Viva to analyze a team's behavior and gain insights about issues such as burnout risks or level of collaboration across departments, receiving recommendations from Viva on making improvements.



微软Viva更重视助力企业打造充满“幸福感”的工作环境  
*Microsoft Viva emphasizes on helping organizations create working environment fulfilled with "wellbeing"*

## 数字经济

*Innovative Development of the Digital Economy*

推动数字经济创新发展, 促进共同繁荣

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

微软Viva提供了多个功能模块(如Viva 连接, Viva学习, Viva洞察, Viva话题, Viva目标), 企业可以根据自身的规模、业务情况和运营现状等实际情况, 选择不同的模块进行排列组合运用。微软也将与时俱进, 继续研发更多的功能模块, 满足全球企业日新月异的管理需求。

Microsoft Viva is a suite consisting of various modules such as Viva Connections, Viva Learning, Viva Insights, Viva Topics, and Viva Goals. Organizations can choose one or more Viva modules based on their size, business needs, and priorities. Microsoft will continue to innovate and bring more modules to Viva to meet the growing demand of global organizations.

## 微软Viva正在围绕“数字化员工体验”形成新的全球化生态

微软正在号召更多的全球企业一起加入对微软Viva的开发和探索。截止目前, 已经有超过200家企业成为了微软的Viva合作伙伴。这些企业的科技创新力将凝聚在一起, 为全球的企业员工打造一个更加积极向上的工作生态, 为全球数字经济的蓬勃发展贡献力量。

*Microsoft Viva is building a new global ecosystem around the digital employee experience*



微软Viva正在通过全球的合作伙伴为用户提供更加多元和丰富的解决方案

*Microsoft Viva is working with partners around the world to provide users with more diverse and rich solutions*

Microsoft invites other enterprises to partner with it on developing and exploring the possibilities of Viva. 200 companies have joined already, bringing their innovation capacity to the table to help actively create a better work ecosystem for workers globally and contribute to the development of a more vibrant digital economy.

上市一年后, 微软Viva的全球月活跃用户已经超过了1000万, 付费客户超过1000家。包括日本丰田、全球日化企业联合利华、奥地利家具配件生产商百隆、第三方支付平台PayPal、英国耆卫保险公司等国际知名企业, 都正在借助微软Viva打造更加符合当下时代需求的企业运营模式, 不断提升员工福祉。

Having hit its first anniversary, Microsoft Viva has surpassed 10 million monthly active users and 1,000 paying clients. Global enterprises including Toyota Motors, Unilever, and PayPal are already using Viva to build new operating models that fit the modern era that can continually improve their employees' welfare.

## 微软Viva赢得了客户的好评

在众多客户中, 日本丰田公司借助微软Viva实现了其数字化转型之旅。疫情以来, 汽车行业的供应链和制造流程易受到干扰, 在Viva的支持下, 丰田公司实行了顺畅高效的居家办公, 其对员工及家人的关怀赢得了各方广泛认可。同时各团队领导可以通过Viva全面了解到员工的工作体验, 进一步完善员工关怀。

### Microsoft Viva has been praised by users

As many customers have done, Toyota has successfully leveraged Viva to accelerate its digital transformation. Amid disruptions to auto industry supply chains and manufacturing logistics, Toyota used Viva to support the establishment of high-efficiency home offices and has received positive feedback from employees and families alike. Team managers could use Viva to build a better understanding of employees' work environment and be more attentive to their needs.

丰田公司首席信息官巴拉德评价表示: “当疫情来袭时, 微软的技术和产品为我们的员工创造了安全工作环境的‘生命线’。随着工厂和制造设施的关闭, 以及办公室员工被临时安排居家办公, 以Viva为代表的微软产品, 成为完善企业流程、并推进复工复产的首选平台。”

Jason Ballard, a Toyota IS executive and general manager of infrastructure and operations services said that “with the sudden emergence of COVID-19, Microsoft's products and services were really a lifeline for creating a safe working environment. With manufacturing facilities closed and office-based workers suddenly working from home, Microsoft Viva and other solutions were the keys to refining our logistical processes and served as the preferred platform for moving us back to a safe reopening and return to work.”



日本丰田公司通过微软Viva更好的支持疫情期间业务的持续和员工的健康与安全

*Toyota Japan is able to support business continuity and employee health and safety better during the pandemic through Microsoft Viva*



## 建设长三角全球科创路演中心, 打造线上线下科创要素聚合中枢

**Creating a Promotional Hub for Global Sci-tech Corporations in the Yangtze River Delta Region—The YDR Global Sci-Tech Innovation**

**申报机构:** 浙江清华长三角研究院

**Applying Institution:** Yangtze Delta Region Institute of Tsinghua University, Zhejiang

**案例涉及的国家 and 地区:** 美国、英国、德国、法国、新加坡、日本、韩国、澳大利亚、新西兰、瑞典、丹麦

**Countries and Regions Covered or Involved in the Implementation:**

United States, United Kingdom, Germany, France, Singapore, Japan, South Korea, Australia, New Zealand, Sweden, Denmark



## 集聚区域澎湃科创动能, 打造全球化、开放化、常态化的科创路演平台

### Building an Inclusive Promotional Center for Global Sci-tech Corporations

2019年4月, 浙江清华长三角研究院与中国嘉兴市人民政府共同发起建设长三角全球科创路演中心。3年来, 路演中心架起全球高科技项目合作交流连心桥, 举办了路演活动近300场次, 吸引了数以千计的创投机构、科创项目参与其中, 700多万人次线上观看, 成为了让创业者向往、投资者便利、产品展示充分、要素融合有效的科创交流平台。

In April 2019, the Yangtze Delta Region Institute of Tsinghua University, Zhejiang, and the Jiaxing (China) Municipal People's Government joined forces and launched a center—the YDR Global Sci-Tech Innovation Roadshow Center—for global science and technology corporations, helping them host promotional roadshows and related activities in the Yangtze River Delta Region. Over the past three years, the center has become a platform for communication and cooperation, as well as a starting point for several global hi-tech projects. The center has hosted nearly 300 roadshows, attracting thousands of enterprises and investors to further develop their projects. Those activities were also live-streamed, catering to more than 7 million viewers in total. In this way, the center has transformed itself into the perfect setting for sci-tech start-ups and investors to connect, and for companies to fully display their products.

### 全球化互动, 畅通科创要素循环

充分发挥清华大学人才、技术优势, 依托长三院在美国、英国、德国、法国、新加坡、日本等地建立的10个离岸孵化器, 与20余家国际学会、协会开展紧密合作, 与近11万海外高层次人才建立了联系, 可迅速在全球范围内广泛征集优质科创项目, 开展全球项目对接及项目云路演活动, 有针对性地引进国际一流战略科技人才、科技领军人才和高水平创新创业团队。如, 承办“红船杯”嘉兴全球创新创业大赛的相关赛事, 159个海内外优质科创项目登上路演中心舞台, 成为长三角区域后疫情时代引入高科技项目与高层次人才的重要窗口之一。

### The center enables deeper global interaction.

Thanks to Tsinghua University which has both the right people and technical advantages, and to the Yangtze Delta Region Institute of Tsinghua University, Zhejiang which boasts 10 offshore incubators, or hi-tech innovation and entrepreneurship service centers outside Zhejiang Province or China, established in the U.S., UK, Germany, France, Singapore, Japan, and other locations, the center has cooperated closely with more than 20 international societies and associations, and connected with nearly 110,000 overseas high-caliber professionals. Additionally, it can swiftly collect quality sci-tech innovation projects on a global scale, linking relevant parties around the globe, enabling them to attend roadshows amongst other activities, and to communicate online. It also presents world-class sci-tech innovation and entrepreneurship teams. Take the “Red Boat (Hong Chuan) Cup” Jiaxing Global Entrepreneurship and Innovation Competition, for example. With 159 projects in China and beyond, taking central stage during the promotional activities, this competition is becoming a window for the introduction of hi-tech projects and high-caliber professionals in the Yangtze River Delta Region's post-pandemic era.

## 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity



意大利国际科创项目云路演秀洲专场

*Italian International Science and Technology Project  
Cloud Roadshow Xiuzhou Special Session in  
November 2021*

## 平台效应明显, 聚合优质科技项目

不断整合科创资源, 建设完善路演中心项目库、专家库、投融资机构库, 实现了2800个以上项目、300家以上投资机构和60个以上高级别创业导师和行业专业入库, 为科创路演活动奠定了资源和智力基础。与清华控股、元禾控股、松禾资本、武岳峰资本、南湖基金小镇等综合服务平台、头部资本机构建立战略合作关系, 构建科创项目金融生态圈, 提供从项目路演到项目落地的全流程金融服务。成立以来, 常态化开展投融资对接活动近30场次, 针对硬科技型创新企业和拟上市高成长型企业, 提供资本服务、创业指导、产业落地等多维度服务支撑。

The platform has assembled many quality sci-tech projects

Through its continuous collecting and maintaining of sci-tech resources, the center is always improving its roadshow collectives currently covering 2,800 projects, 300-plus investment and financing institutions, and more than 60 senior entrepreneurial mentors and industry

professionals, who are laying the foundation for sci-tech roadshow activities. The center established strategic partnerships with service platforms and leading asset management companies such as Tsinghua Holdings, Oriza Holdings, Green Pine Capital Partners, Summitview Capital, and Nanhufund Town, establishing a financial ecosystem for sci-tech innovation projects, and providing full-process financial services from promotional roadshows to project execution. Since the center's establishment, nearly 30 investment and financing matchmaking activities have taken place at regular intervals. Multi-dimensional services such as asset management services, entrepreneurial guidance, and assisting startups in landing and executing projects in Jiaxing are available to hard-tech innovative companies and to-be-listed high-growth companies.



“星聚长三角·高成长科创企业路演”——拟上市企业嘉兴专场现场交流对接

*Participants exchange contact information at a session of “Shining Stars in the Yangtze River Delta Region—Roadshow for High-Growth Sci-Tech Enterprises” (intended for to-be-listed companies)—in Jiaxing, Zhejiang, in July 2020*

## 品牌影响力大, 打造服务共同体

为加快科创要素在长三角地区持续积聚、共建共享, 路演中心立足嘉兴, 组建了长三角G60科创走廊科创路演中心联合体, 上海、杭州等9城市41家路演中心、科研院所、

投融资平台等单位机构加入了联合体。2020年以来, 承办了国际性、区域性项目路演及论坛等活动20余场, 成为长三角向全球专业投资者、高层次人才传递营商环境、创业创新政策等重要平台之一。

### Building a community of service providers

To accelerate the accumulation of sci-tech innovation elements to be shared with and improved by all in the Yangtze River Delta Region, the roadshow center, located in Jiaxing, has fashioned a community called the G60 S&T Innovation Valley of Yangtze River Delta. Forty-one roadshow centers, research institutes, and investment and financing agencies from nine cities including Shanghai and Hangzhou, have so far joined the community. Since 2020, the community has hosted more than 20 international and regional roadshows and forums. It further cohosted more than 10 large influential activities. The center has become a top platform in the Yangtze River Delta Region by large for the distribution of business environment information as well as entrepreneurship and innovation policies to global investors and high-caliber professionals.



全球百名博士进桐乡活动项目签约

*Signing ceremony of a project inviting some 100 professionals to provide their expertise to the development of Tongxiang in Jiaxing, Zhejiang, in May 2022.*

### 项目落地显著, 赋能区域创新发展

以项目路演为链环, 黏合资本、技术、人才、交易、服务、信息等创新创业的要素能力不断增强, 累计为嘉兴撮合落地签约项目超400个, 签约总金额超300亿元, 建立了一批具有国际水平的战略性、创新性领军人才圈, 促进一批顶尖高新技术成果在嘉兴落地。

**Projects signed at the center have made significant progress, empowering regional innovation and development.**

Roadshows serve as the strongest links between the different elements of innovation and entrepreneurship such as capital, technology, talent, transactions, services, and information. More than 400 projects have been successfully signed and executed in Jiaxing with total contract value exceeding 30 billion yuan (\$4.44 billion). Many leading professionals with international perspective, strategic insight, and innovative vision gather here to create a force that drives the implementation of hi-tech achievements in Jiaxing.

# 中国-东盟信息港股份有限公司面向东盟国家的 即时通讯系统

## A Case of China-ASEAN Information Harbor Co., Ltd. (Abbreviated as CAIH)' s Instant Message System for ASEAN Countries

**申报机构:** 老挝国家互联网中心、中国—东盟信息港股份有限公司、国有控股的平台型信息科技公司、老挝ALO科技有限公司、老挝数字经济龙头企业

**Applying Institution:** Laos National Internet Centre, China-ASEAN Information Harbor Co., Ltd. Laos ALO Technology Co.Ltd., Top enterprises in Laos' digital economy area

**案例涉及的国家 and 地区:** 老挝、柬埔寨

**Countries and Regions Covered or Involved in the Implementation:** Laos, Cambodia



## 打造本地化建管营三位一体的专属即时通讯, 助力东盟国家实现数字化转型。

CAIH has built an establishment, management, and operation trinitarian GChat instant messaging system for ASEAN governments. This provides ASEAN countries with strong technical support for smart governmental administration and intelligent office system which helps to realize digital transformation.

2019年底老挝邮电部希望中国数字经济企业能够帮助老挝政府部门开发一套政府公务员专用即时通讯系统, 规避原老挝政府公务员只能使用公共即时通讯APP进行工作的数据和安全风险。中国东信在接到此需求后迅速组织研发团队按照老挝邮电部的要求进行即时通讯系统开发, 并命名为GChat系统。

At the end of 2019, the Lao Ministry of Posts and Telecommunications turned to Chinese digital economy enterprises for developing a special instant messaging system for government servants. This was in order to avoid the data and security risks of the former Lao government officials who could only use public instant messaging apps for their work. After receiving this demand, CAIH quickly organized a research and development team to develop an instant messaging system according to the requirements of the Lao Ministry of Posts and Telecommunications, and named it as GChat system.

### 功能丰厚, 深受用户好评

老挝政府高度重视信息通讯技术发展和应用。2020年3月, 老挝副总理、老挝-中国投资贸易合作委员会主席 Sonexay Siphandone参加了GChat系统发布会, 宣布即时通讯系统在老挝上线运行。系统采用本地化部署, 数据存储于老挝国家互联网中心, 本地化管理以确保数据安全。

#### Rich functions, well received by users

Laos government is highly concerned about the development and application of telematics technologies. Sonexay Siphandone, Laos Vice Prime Minister and Chairman of Laos-China Investment and Trade Cooperation Commission, attended the press conference of GChat system in March 2020 and made an announcement that instant message system goes circulating in Laos. The system adopts local deployment, which means the data would be stored at Laos nation internet centre and data security is guaranteed by localized management.

系统覆盖老挝总理府、邮电部、财政部、教育部等多个国家部委, 通过web端和手机APP端为用户提供在线语音视频、文件传输、信息交流和视频会议等服务, 协助超过8500名公务员实现了日常线上办公, 深受用户好评, 知名度很高。2021年老挝政府还提出了二期需求, 计划在未来三年内覆盖老挝全境25万公务员。

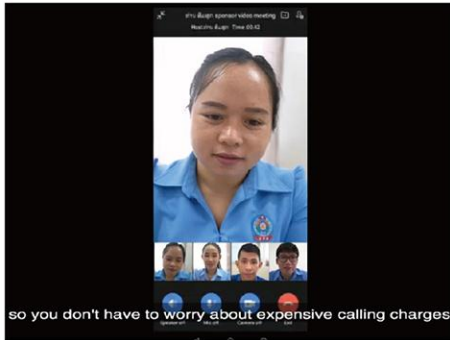
The GChat system has been launched in Laos covering multiple national ministries and commissions including the Lao Prime Minister's Office, Ministry of Posts and Telecommunications, Ministry of Finance and Ministry of Education etc. The system provided instant messaging, file transmission, and video conferencing services. With the assistance of these services, more than 8,500 civil servants, who speak highly of this tool, are using the system in dealing with their daily work online. The Laos government has proposed the demand of second phase of construction to cover 250,000 civil servants across Laos in the next three years.

## 数字经济

Innovative Development of the Digital Economy

推动数字经济创新发展, 促进共同繁荣

Promoting Innovative Development of the Digital Economy for Common Prosperity



Gchat视频会议功能

*Gchat platform video conferencing function application*



GChat技术研发团队

*GChat research and development team*

## 技术先进, 算法设计领先

GChat平台采用了先进的微服务以及分布式架构技术, 具备松耦合性、功能可插拔性、集群伸缩性和应用高可用性, 快速便捷实现用户的扩容以及本地定制化业务接入。中国东信在IM消息的可靠性、重复性以及高并发性上进行了专门的算法设计, 消息送达率高达99.9%, 实现了百万级用户的消息发送及存储, 并申请了“一种即时通讯系统消息的储存及同步方法”专利。

### Advanced technology, leading algorithm design

The GChat platform adopts advanced micro-service and distributed architecture technology, with loose coupling, function pluggability, cluster scalability and high application availability, enabling rapid and convenient user expansion and access to local customized service. CAIH has carried out a special algorithm design on the reliability, repeatability and high concurrency of IM messages, with a message delivery rate as high as 99.9%. This helped in realizing the message transmission and storage of millions of users, and applied for the patent of messages' storage and synchronization method of instant messaging system".



专利证书

*The patent certificate*

平台采用先进的前端单应用技术和跨平台的移动开发技术 react-native, 较好保证了客户端的兼容性及稳定性。进行本地化UI适应性开发, 方便国际用户快速适应系统。在运维监控上, 实现了微服务状态监控, 自动预警。

The platform adopts 'react-native', an advanced front-end single application technology and cross-platform mobile development technology, which better ensures the compatibility and stability of the client-side. It carries out localized UI adaptive development, facilitating international users to quickly adapt to the system. In terms of operation and maintenance monitoring, the micro-service status monitoring and automatic early warning are realized.

## 成果丰硕, 示范效应显著

截止到2022年7月, 系统公务员用户共8500人, 日均消息发送量超过20万条, 累计消息发送量超过1.5亿条。GChat系统在老挝具备了很高的知名度, 得到了老挝邮电部、老挝总理府、老挝驻华使领馆等多个国家部委的好评, 甚至部长级官员及总理都给予了肯定和赞誉。

### Fruitful results, remarkable demonstration effect

As of July 2022, the average daily transmission number of messages exceeded 200,000 and the cumulative transmission volume exceeded 150 million. The GChat system has a high reputation in Laos, and has been praised by the Ministry of Posts and Telecommunications of Laos, the Lao Prime Minister's Office, the Lao Diplomatic and consular missions in China and other national ministries and commissions. Minister level officials and the prime Minister have affirmed and praised it.

GChat系统是推动中国先进技术面向东盟市场需求创新示范应用的典型案例, 也是中国创新信息融合通信技术在国际应用的典范, 融合了传统的协同办公服务、通信服务和便捷的线上生活服务内容, 为用户提供生活便利, 助力东盟国家实现数字化转型升级。

GChat is a typical case of promoting the innovative demonstration and application of China's advanced technologies to the ASEAN market demand. The service is a model of the application of overseas of China's innovative information- communication integration technology. It integrates traditional collaborative office services, communication services and convenient life services online. It also improves the convenience of local people's life with China's advanced new information and communication technology. In addition, it helps ASEAN countries achieve digital transformation and upgrading.

## 打造标杆, 全球创新推广

2022年, 中国东信计划在GChat平台老挝政府版本的基础上打造标杆产品并向柬埔寨推广。系统以满足柬埔寨当地用户需求为主旨, 提供新型通信、生活缴费等增值服务, 推动中国先进技术在国际上进行创新应用推广, 携手国际用户共创便捷优质的数字化生活服务。

### Create a benchmark, promote to the world

In 2022, CAIH plans to promote the product to Cambodia based on the GChat platform in Laos to meet the needs of local users. This provides value-added services such as new communication services and life payment services, propel the innovation and application of China's advanced technologies in the world and improve the living convenience of local users.





## 环球撮合荟——全球企业智慧生态社区

### ICBC Business Matchmaker

---

**申报机构:** 中国工商银行股份有限公司

**Applying Institution:** Industrial and Commercial Bank of China

**案例涉及的国家 and 地区:** 中国、阿根廷、南非、莫桑比克、法国、俄罗斯、乌干达、埃塞俄比亚等59个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

59 countries and regions such as China, Argentina, South Africa, Mozambique, France, Russia, Uganda, Ethiopia



## 中国工商银行环球撮合荟, 为全球企业贸易搭建沟通桥梁, 助力企业“一点接入”全球产业链、供应链。

ICBC Business Matchmaker creates a communication bridge for global trade, offering enterprises “one-point access” to the global industrial and supply chains.

新冠肺炎疫情蔓延, 全球中小企业都遭受了不同程度的冲击。在这个特殊时期, 中国工商银行创新推出环球撮合荟线上数字化平台, 为全球企业提供贸易撮合和金融服务, 构建全球企业智慧生态社区, 助力企业互联互通, 推动数字经济蓬勃发展。

The spread of COVID-19 has impacted global small and medium-sized enterprises to different degrees. In this context, ICBC has launched an innovative online digital platform, ICBC Business Matchmaker, to provide trade matchmaking and financial services for global enterprises and build a smart ecological community. By doing so, ICBC Business Matchmaker aims to facilitate business interconnection and promote the prosperity of the digital economy.

### 智能化线上平台, 搭建沟通桥梁

国际疫情持续蔓延使得大量中小企业遭遇订单不足、原材料供应中断等困难, 现有市场供需萎缩, 开拓新市场面临语言不通、政策不明、交易不便等问题。中国工商银行充分发挥环球撮合荟线上平台的跨时空作用, 竭诚为全球企业提供商机无缝对接的契机, 通过“云展厅+云发布”“推介会+撮合会”等形式, 推动全球商品、技术、服务、资本等要素的“集散通达”。如今, 全球已有59个国家和地区的11余万家企业使用环球撮合荟, 面向全球市场在线发布产品和需求、搜索目标商品及合作项目, 与感兴趣的企业进行留言互动或在线洽谈, 实时掌握跨境产业链、贸易链供求信息。

#### Creating a Communication Bridge with the Intelligent Online Platform

The continuous spread of the pandemic made massive small and medium-sized enterprises suffer from difficulties such as insufficient orders and an interrupted supply of raw materials. Existing markets saw a contraction in supply and demand, and new markets were hard to tap due

to language barriers, unclear policies, inconvenient transactions, and other problems. Under this circumstance, ICBC fully used its ICBC Business Matchmaker as an online platform for cross-time-and-space communication. Through forms such as “cloud exhibition hall & cloud release” and “promotion event & matchmaking event”, this platform has provided global enterprises with opportunities for seamless business matchmaking and boosted the “distribution and delivery” of global commodities, technologies, services, capital, and other factors. Up to now, ICBC Business Matchmaker has served more than 110,000 companies from 59 countries and regions. It has allowed global enterprises to release products and demands and search for target products and cooperation projects online, interact with potential partners through messages or online negotiations, and master the supply and demand information of cross-border industrial and trade chains in real-time.



全球企业进行线上洽谈

Enterprises from different parts of the world are negotiating online

## 高质量撮合活动, 拓展对接渠道

中国工商银行积极融入进博会、服贸会、广交会、消博会等重量级展会, 依托环球撮合荟平台累计举办180余场高质量撮合活动, 服务上万家企业贸易洽谈。在第三届进博会期间, 举办“一带一路”沿线贸易洽谈会, 来自32个国家和地区的500余家企业围绕食品及农产品、医疗器械技术装备、消费品等主题开展贸易洽谈, 达成合作金额30多亿元。在首届消博会期间, 举办“海南自贸港贸易投资对接会”, 并在日本、阿根廷设立线上分会场, 捷克波西米亚投资公司、王府井集团、大马顶级燕窝有限公司等全球300余家企业进行深度磋商, 达成贸易及投资合作意向400余项。

### Expanding Liaison Channels through High-quality Matchmaking Events

ICBC Business Matchmaker has held more than 180 high-quality trade matchmaking events for tens of thousands of enterprises by actively participating in important international exhibitions such as the China International Import Fair (CIIE), China International Fair for Trade in Services, Canton Fair, and China International Consumer Products Expo (CICPE). During the 3rd CIIE, the platform organized trade talks on food, agricultural products, medical technical equipment, and consumer goods for more than 500 companies from 32 “Belt and Road” countries and regions with agreements signed on cooperation projects covering a total value of more than RMB 3 billion. In addition to that, during the first CICPE, the platform hosted the Trade and Investment Matchmaking Conference in Hainan Free Trade Port with online venues set up in Japan and Argentina. At this conference, more than 300 enterprises including Bohemia Investment from the Czech Republic, Wangfujing Group, and DaMa DingJi YanWo from Malaysia carried out in-depth consultations with over 400 trade and investment cooperation intentions reached.



进博会现场客户采访  
A client is being interviewed at the CIIE venue

## 全方位国际合作, 构建服务生态

中国工商银行充分发挥集团优势, 积极开展国际合作。先后与新加坡中华总商会、马来西亚-中国商务理事会、意中基金会、阿根廷投资与国际贸易促进基金会等10余家商协会签订跨境撮合服务协议, 依托环球撮合荟平台在服务企业跨境合作等方面开展长期合作。2022年适逢工商银行担任在金砖国家工商理事会主席单位, 举办10余场“金砖+”企业跨境撮合系列活动, 吸引来自南美、非洲、东南亚等20余个国家和地区的600余家企业参与活动。其中巴西专场通过八轮磋商, 促成初步合作金额超8千万美元; 中粮、京客隆、物美等企业在阿根廷、秘鲁专场, 成功与洽谈对手签署合作备忘录, 促进了新兴市场与发展中国家企业间跨境贸易合作。

## Creating a Service Ecosystem through All-round International Cooperation

ICBC has leveraged its advantages for active international cooperation. ICBC has signed cross-border matchmaking service agreements with more than 10 business associations including the Singapore-Chinese Chamber of Commerce, the Malaysia-China Business Council, the Italy-China Foundation, and the Argentine Investment and International Trade Promotion Foundation to conduct long-term cross-border cooperation by relying on ICBC Business Matchmaker. In 2022 when ICBC served as Chairman of the BRICS Business Council, ICBC Business Matchmaker held more than 10 cross-border matchmaking events for over 600 “BRICS Plus” enterprises from 20-plus countries and regions in South America, Africa, and Southeast Asia. Specifically, the eight negotiations at the Brazilian session enabled the participants to reach preliminary cooperation agreements with a total value of more than USD 80 million. At the Argentine and Peruvian sessions, COFCO Corporation, Jingkelong, Wumart, and other companies signed cooperation memorandums with their counterparts, promoting cross-border trade cooperation between emerging markets and developing countries.



中国工商银行(普惠金融事业部田哲总经理)与新加坡中国总商会签订谅解备忘录

*ICBC (Tian Zhe, General Manager of Inclusive Finance Department) signs a memorandum of understanding with the Singapore-China General Chamber of Commerce*



“金砖+”企业跨境撮合系列活动非洲专场

*The African session of cross-border matchmaking events for “BRICS Plus” enterprises*



## 基于区块链的智能 再保险交易平台

### The Intelligent Reinsurance Transaction Platform Based on Blockchain

**申报机构:** 中国人民财产保险股份有限公司

**Applying Institution:**

PICC Property and Casualty Company Limited

**案例涉及的国家 and 地区:**

中国、埃及、爱尔兰、巴巴多斯、百慕大、波兰、德国等24个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

24 countries and regions such as China, Egypt, Ireland, Barbados, Bermuda, Poland, Germany

## “链”接世界, 共建全球再保险生态联盟。

"Chain" connects the world and builds a global reinsurance ecological alliance.

随着金融市场和数字化信息技术日新月异的发展,再保险行业传统业务经营模式亟待革新。

With the rapid development of financial markets and digital information technology, the traditional business operation mode of the reinsurance industry needs to be reformed.

### 打破“数据孤岛”, 打造金融服务新模式

再保险是保险业务的重要组成部分,被称为“保险的保险”,是多种保险实体之间的一种风险再传递,可以分散保险公司风险,提升保险公司承保能力,是为社会提供风险保障的一种手段和机制。

#### Breaking "Data Island" and Creating a New Model of Financial Services

Reinsurance, also known as "insurance of insurance", is an important part of the insurance industry used as risk retransmission mechanism among a variety of insurance entities. It enables insurance firms to transfer risks, improve the underwriting capacity, strengthen the risk taking ability of the industry and provide diversified risk coverage for the society.

再保险交易参与方主体多,传统交易过程高度依赖电话、邮件等方式,存在无法及时识别合约信息变动、人工核验成本较高等问题。

Reinsurance transaction involves abundant participants. The traditional transaction process is highly dependent on manually repeated communication and confirmation via telephone, email, etc. There are many problems involved in it, such as the inability to identify the changes in treaty information in time and the high cost of manual verification.

基于区块链的再保险交易平台将再保险交易过程数字化,并基于区块链分布式账本实现参与各方的信息实时更新、同步共享、随时核验,交易进程与业务条件公开、透明、可回溯。提升上下游数据的可信度,降低风控难度,实现再保数据的共享和交换,降低交易成本,强化多方信任协作。

The Reinsurance Transaction Platform based on blockchain digitizes the reinsurance trading process and realizes the real-time update, synchronous sharing, and verification of the information of all parties based on the blockchain distributed ledger. The trading process and business conditions are open, transparent, and traceable improving the credibility of upstream and downstream data, reducing the difficulty of risk control, realizing the sharing and exchange of reinsurance data, reducing transaction costs, and strengthening multi-party trust and cooperation.

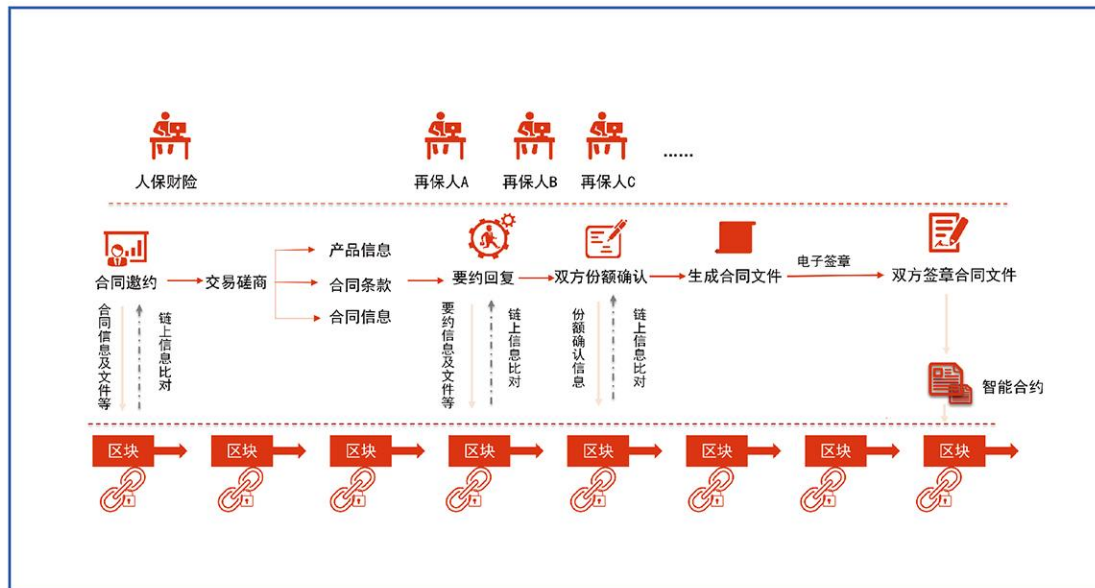


## “区块链+再保险”构建再保交易新“链”路

以再保险合同交易的场景为例(详见图:再保险合同交易流程),再保险合同交易将再保险合同信息、合约交易的协商过程、协商材料等数字化和电子化,并且将分出公司邀约上链,再保险公司要约上链,分出公司合同确认上链及再保险合同确认签署操作中的再保险合同信息实时进行链上存储,根据可信时间源加盖时间戳,固化合同历史版本。利用区块链上的合同信息不可篡改的特性,引入各环节数据核验操作,使再保险公司可以直观了解当前再保合约与历史上链时点合约信息的变化。

## "Blockchain & Reinsurance" to Build a New "Chain" Road for Reinsurance Transaction

Taking the reinsurance treaty transaction as an example (As shown in the Reinsurance Treaty Transaction Flow Chart), the reinsurance treaty transaction digitizes and electronize the information, the negotiation process of the treaty transaction and the materials, etc., and stores the reinsurance treaty information in the process of the invitation of the ceded company to the chain, the offer of the reinsurance company, the written line of the ceded company, and the confirmation of the reinsurance treaty. The timestamp is stamped according to the trusted time source to solidify the historical version of the contract. Beneficial from the feature of tamper-resistant of treaty information on the blockchain, the Platform introduces a data verification operation to enable the reinsurer directly to understand the changes between the current and the historical information of a treaty.



合约交易流程图

Contract transaction flow chart

## 共建全球再保险生态联盟

2022年人保财险通过该平台向24个国家、地区的近200多家再保险公司进行合约邀约, 审核再保人要约超过3000笔, 要约确认超过1000笔, 交易对手遍布亚太、欧洲、美洲、非洲, 其中外资再保人(包括在华设立分支机构的再保人)数量占到四分之三, 分保费交易金额超过150亿人民币。

PICC P&C in 2022 has sent treaty reinsurance invitations to nearly 200 reinsurers from 24 countries or regions through the Platform, reviewed more than 3,000 offers, and confirmed more than 1,000 offers. The counterparties were all over Asia Pacific, Europe, America, and Africa of which the number of foreign reinsurers (including reinsurers with branches in China) accounted for three quarters with the amount of reinsurance premium transactions exceeding CNY 15 billion.

## Building a Global Reinsurance Ecological Alliance

截至目前已在三个法人机构分别部署区块链节点, 初步形成人保联盟链, 且支持更多法人主节点的扩展, 后续逐步推广到行业联盟, 吸引更多保险实体公司加入人保联盟链, 通过跨链融合技术接入更多的联盟链/私有链, 实现再保行业共建、共治、共享的再保险行业生态联盟。

Up to now, the blockchain nodes have been deployed in three legal institutions, initially forming the PICC alliance chain, and supporting the expansion of more legal person master nodes. Subsequently, it will be gradually extended to the industry alliance, attracting more insurance companies to join the PICC alliance chain, and connecting more alliance chains and private chains through cross-chain integration technology, so as to realize the reinsurance industry ecological alliance of co-construction, co-governance, and sharing in the reinsurance industry.



# 全球数字人才发展研究

## Global Digital Talent Development Research

**申报机构:** 北京领英信息技术有限公司、清华大学经济管理学院互联网发展与治理研究中心

**Applying Institution:** LinkedIn Information Technology Co., Ltd., Tsinghua SEM Center for Internet Development and Governance, CIDG

**案例涉及的国家 and 地区:** 中国、美国、加拿大、新加坡、阿联酋等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as China, United States, Canada, Singapore, United Arab Emirates



## 聚焦数字人才研究, 揭示全球数字经济脉动。

Focus on the research of digital talents and reveal the trend of the global digital economy.

近年来数字经济高速发展, 数字人才呈现高质量增长并成为数字经济发展的核心驱动要素。清华经管学院互联网发展与治理研究中心与领英自2016年起开展深入合作, 聚焦数字经济及数字人才, 发布了一系列有影响力的研究报告。

In recent years, the digital economy has developed rapidly. The digital talent has shown high-quality growth and becomes a core driving force for the development of the digital economy. Since 2016 the Tsinghua SEM CIDG and LinkedIn have been collaborating to release a series of influential research reports focusing on the digital economy and digital talents topics.



全球数字人才发展研究系列报告

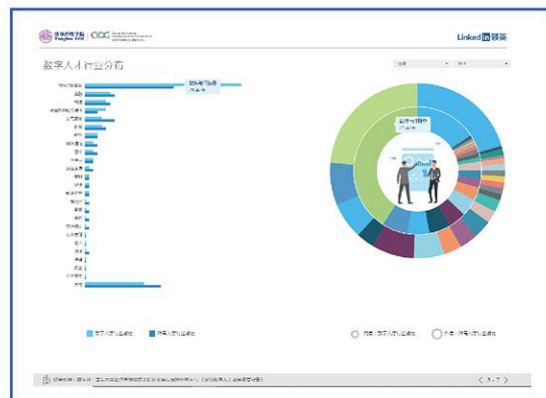
Global Digital Talent Development Research Series Report

## 通过数字化形式, 展现全球经济趋势

该项目基于领英全球8.5亿会员、3.8万项职业技能、5,800万雇主公司以及12万家教育机构的公开会员信息进行数据分析, 从人才的行业分布、技能特征、流动情况等角度进行深入研究, 洞察数字人才发展现状以及数字经济的发展趋势。

### Digital representation of the global economy

Based on 850M members, 38,000 skills, 58M employers, and 120,000 educational institutions, the research project presents an in-depth analysis of the development status of global digital talent and the trend of the digital economy from the perspective of the industrial distribution, skill characteristics and the migration of talent.



全球数字人才发展研究专题网站

Global Digital Talent Development Research Special Website

自2020年起, 研究团队将研究范围进一步扩大, 基于领英数据对全球31个重要创新城市(地区)数字人才的发展现状和趋势进行分析和追踪, 每年定期发布《全球数字人才发展年度报告》。同时, 项目还专门开发数字人才研究专题网站, 动态演示全球数字人才发展和变化态势。

Since 2020 the research team has further expanded the research scope, analyzing and tracking the development status and trends of digital talent in core cities and regions globally to release annual reports. Also, the project has established a special research website to dynamically demonstrate the development trends of global digital talent.

### 基于数字技能分析, 助力人才战略制定

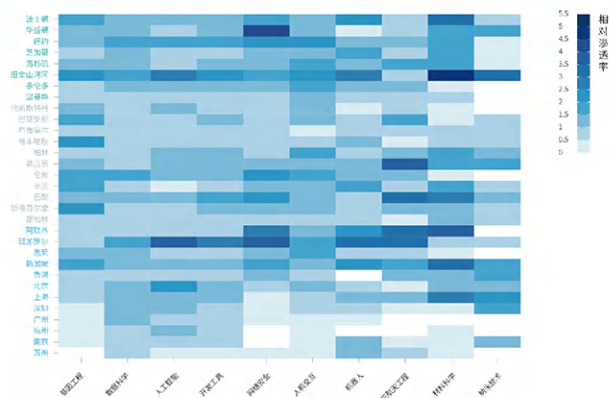
全球范围内对数字技术的需求不断增加, 数字人才所具备的技能组合及其变化趋势, 始终是该项目的研究焦点。研究团队将数字技能划分为“基础性数字技能”和“颠覆性数字技能”。其中, 基础性数字技能是城市群数字产业发展的基石, 是利用和拥抱数字时代的能力; 颠覆性数字技能则是推动数字化深层次转型的核心力量, 将为数字时代创造新的应用场景。基于数字技能的分析可以助力企业和政府制定具有针对性的数字人才战略。

#### Based on digital skills analysis to facilitate talent strategy formulation

The skill set and trends of digital talent are always the focus of the research as the increased global demand for digital technologies. The research team divided digital skills into tech skills and disruptive tech skills. Tech skills are the cornerstone of the development of digital industries in city clusters that can provide the ability to leverage and embrace the digital world. Disruptive tech skills are the core force driving profound digitalization that creates new scenarios for the digital age. Analysis based on digital skills can help enterprises and governments develop targeted digital talent strategies.

最新研究发现, 当前全球领先的创新城市都在不断推动颠覆性数字技能的发展。而通过对比十大具有代表性的颠覆性数字技能在全球主要城市的相对渗透率, 研究团队发现, 美国旧金山湾区和印度班加罗尔具备最高的颠覆性技能渗透率, 第二梯队由中国、德国等重点城市组成, 他们在单个或少数几个颠覆性技能方面具有突出的人才优势。

The research finds that the world's leading innovative cities are constantly promoting the development of disruptive tech skills. By comparing the relative penetration of the top 10 representative disruptive tech skills in 31 core cities we find the SF Bay Area in the US and Bangalore in India have the highest penetration rate of disruptive skills. The second tier includes countries such as China and Germany, which have outstanding talent advantages in single (or a few) disruptive skill fields.



2020年全球各城市(地区)颠覆性技能渗透率  
(注:空白方格表示数据缺失)

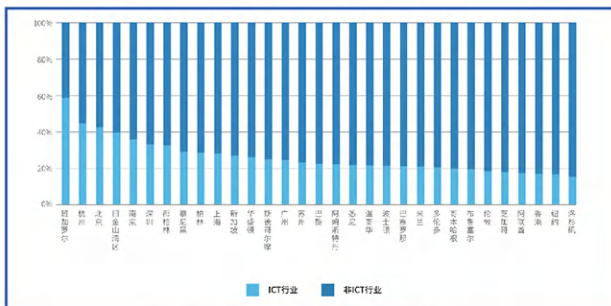
Figure 3: The penetration rate of disruptive tech skills in cities (regions) around the world in 2020  
(Note: blank squares indicate missing data)

## 追踪人才分布情况, 探索数字化转型机遇

全球产业数字化不断向纵深发展, 该项目通过探索全球数字人才格局和发展进程, 为研究全球经济的数字化转型提供了一个独特的视角, 从而探索各城市与核心产业带面临的数字化转型机遇。例如, 通过研究数字人才的整体行业分布, 研究团队发现目前全球数字人才在非ICT行业中的比重高于ICT行业(软件与IT服务、计算机网络与硬件), 且各城市非ICT行业数字人才的绝对量在逐年增加, 意味着数字人才正在不断向传统行业渗透, 全球产业数字化格局已呈现融合性和纵深式发展。

### Track talent distribution and explore the digital transformation opportunities

Global industrial digitalization continues to develop in depth. By exploring the global digital talent pattern and development process, this project provides a unique perspective for us to study the digital transformation of the global economy, and to explore the digital transformation opportunities for cities and core industrial belts. For example, by studying the overall industry distribution of digital talents, the research team found out that the proportion of digital talent in non-ICT industries is higher than that in ICT industries (software and IT services, networking, and hardware), and the absolute quantity of digital talent in non-ICT industries has been increasing. That suggests digital talent is constantly migrating to traditional industries and the global industrial digitization is developing in an integrated and in-depth manner.



2020年各城市数字人才行业分布  
The Industrial Distribution of Digital Talent in Cities  
(Regions) in 2020



代表性行业的城市(地区)排名 (Top10), 以及与2019年数据对比 (注: "New"表示2020年最新进入该行业排名TOP 10的城市或地区)

Ranking of Cities (Regions) in Representative Industries (Top 10), and comparison with data of 2019  
(Note: "NEW" refers to new entrants to the top 10 cities in 2020)

最新研究还针对ICT行业和四大非ICT行业(制造、金融、消费品和公司服务)进行了数字人才分布的对比分析。2020年数字人才在全球主要城市的金融行业中的分布比重大多有所增加, 表明以数字科技为驱动的金融创新, 正在为数字人才创造更多的就业机会和新兴岗位。

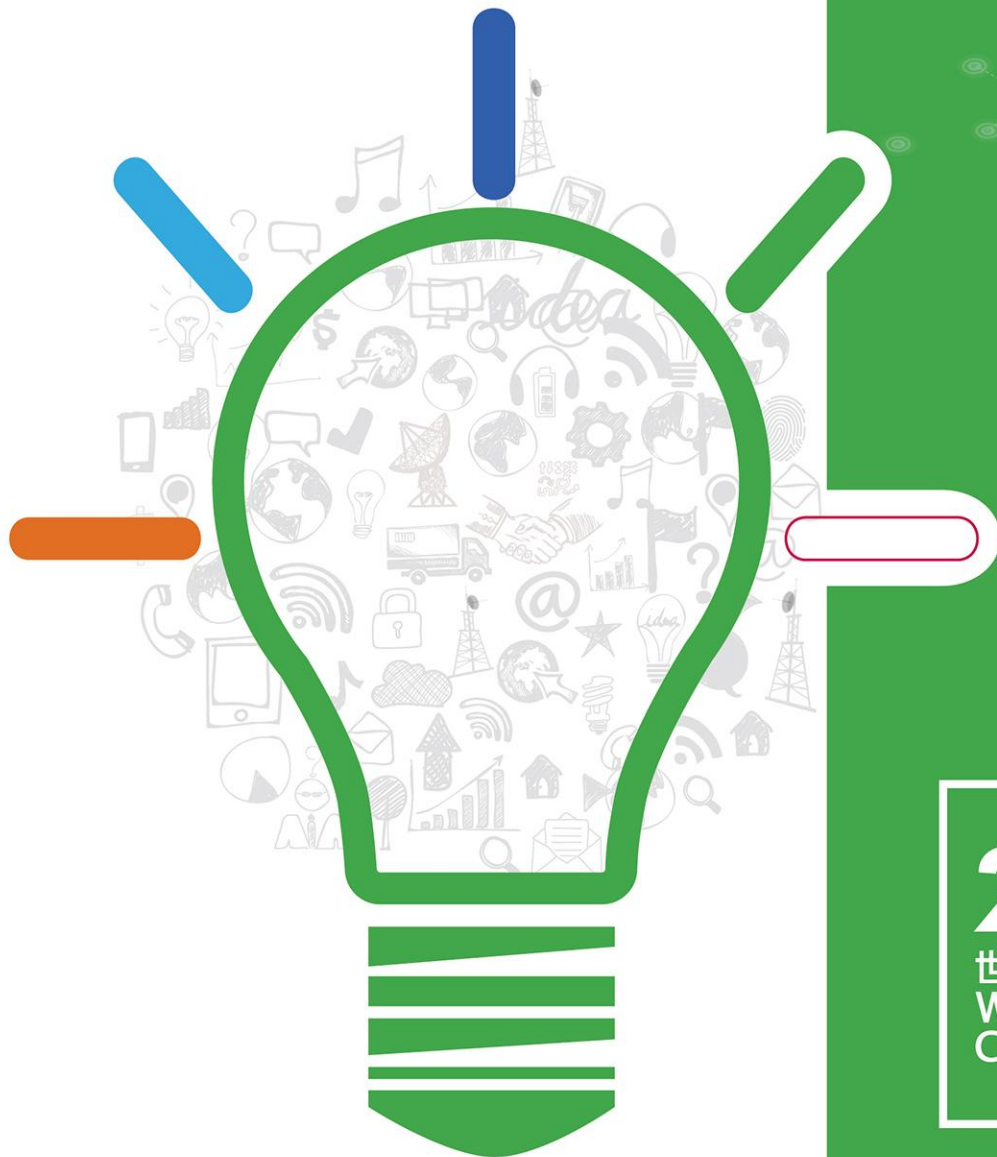
The latest study looked closer at the ICT industries and four non-ICT industries (manufacturing, finance, consumer goods, and corporate services). The proportion of digital talent in the finance industry in most cities (regions) increased, which shows that financial innovation driven by technology is creating more employment opportunities and emerging job positions for digital talents.

# 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development

# 网络安全

*Cybersecurity Maintenance*

保障网络安全, 促进有序发展

*Maintaining Cybersecurity to Promote  
Orderly Development*



# CNCERT网安事件处置合作

## Collaborative Handling of Cyber Security Incidents by CNCERT

申报机构: 中国国家计算机网络应急技术处理协调中心

Applying Institution:

National Computer Network Emergency Response Technical Team/Coordination Center of China (CNCERT/CC)

案例涉及国家和地区: 中国、巴基斯坦、阿联酋、俄罗斯、马来西亚、贝宁等81个国家和地区

Countries and Regions Covered or Involved in the Implementation:

81 countries and regions such as China, Pakistan, United Arab Emirates, Russia, Malaysia, Benin

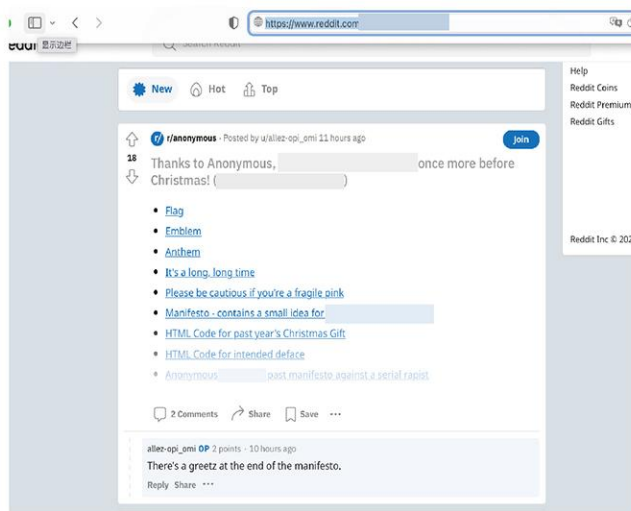


作为中国计算机网络应急处理体系中的牵头单位, 中国国家计算机网络应急技术处理协调中心(CNCERT)积极开展网络安全国际合作, 与全球CERT组织协调处置跨境网络安全事件, 为推动维护全球互联网网络安全环境积极贡献力量。

As the key coordination team for China's cyber security emergency response community, CNCERT has actively engaged in cooperation with CERTs worldwide in handling cross-border cyber security incidents, contributing to the safeguarding of the global cyber environment.

截至目前, CNCERT已与81个国家和地区的274个组织建立了“国际合作伙伴”关系, 与其中的33个组织正式签订网络安全合作备忘录。2022年上半年, 共协调处置跨境网络安全事件上万起, 事件类型主要为网页仿冒、拒绝服务攻击、恶意探测扫描、恶意程序、漏洞等, 其中不乏与各网络安全组织通力合作成功处置的典型案列。

Up until now, CNCERT has established "international cooperation partnership" with 274 organizations in 81 countries and regions, and signed cooperation memoranda with 33 of them. In the first half of 2022, more than ten thousand cross-border cyber security incidents were collaboratively handled including phishing, denial of service attacks, malicious scanning, malware, and vulnerabilities, among which a number of typical cases stand out.



reddit论坛发帖

*Related post on the reddit forum*

## 协调处置黑客组织“匿名者”网页篡改事件

2021年12月, CNCERT发现黑客组织“匿名者”篡改了某国际组织所属网页, 并在reddit论坛上张贴了相关证据。CNCERT立即联系协调该国际组织, 被篡改网站当天即得到了有效处置, 减轻了影响和损失。

### Coordination in handling webpage defacement by the hacker group "Anonymous"

In December 2021, CNCERT found that the webpage of an international organization was defaced by the hacker group "Anonymous", and relevant evidence was posted on the reddit forum. CNCERT immediately contacted that organization, and this incident was properly handled in the same day, with further impact and loss being prevented.

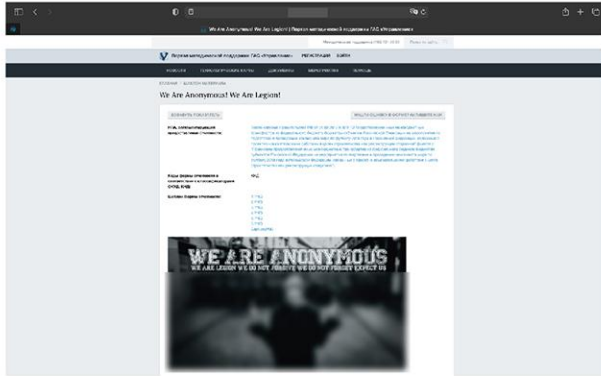


## 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



被黑客组织“匿名者”篡改的中国境外某网站页面  
Defaced webpage by the hacker group "Anonymous"

2021年11月, CNCERT发现中国境外某网站页面被黑客组织“匿名者”篡改。CNCERT立即联系协调其国家级应急响应组织, 被篡改网站当天即得到了有效处置, 减轻了影响和损失。

In November 2021, CNCERT found that a webpage was defaced by the hacker group "Anonymous". CNCERT immediately contacted its national CERT, and this incident was properly handled in the same day with further impact and loss being prevented.

## 联系协调中国境外公司快速处置中国某银行仿冒和域名无法访问事件

2021年10月, 中国某银行收到投诉, 称有一个针对其的仿冒网站, 该网站在谷歌搜索上排名第一, CNCERT紧急联系协调谷歌公司, 排名问题快速解决, 消除了误判和误解。

Coordination with companies in quickly dealing with phishing and domain name inaccessibility of Chinese banks

In October 2021, a Chinese bank received incident report that its website was under phishing attack and the counterfeit website ranked first

on Google search. CNCERT immediately contacted Google and this incident was handled immediately with misjudgment and misunderstanding being eliminated.

2019年12月, CNCERT收到中国某银行投诉, 称其银行部分域名在计算机、手机等终端无法通过中国境外某浏览器访问。CNCERT立刻与该浏览器公司联系协调, 当晚受影响域名已紧急恢复, 并在CNCERT积极协调下, 该公司为中国12家银行域名增加白名单机制, 确保类似问题不再发生, 消除了误判和误解。

In December 2019, CNCERT received a complaint from a Chinese bank that some of its domain names could not be accessed on computers, mobile phones and other terminals through browser. CNCERT immediately contacted that browser company and the affected domain name was urgently restored that night. Under the active coordination of CNCERT, the company has also added a whitelist mechanism for the domain names of 12 Chinese banks to ensure that similar problems do not occur again with misjudgment and misunderstanding being eliminated.



## 有效协调处置疫情相关跨境网络安全事件

2020年1月,CNCERT监测发现某中国境外域名邮箱被用于发送钓鱼邮件,域名下URL链接提供下载恶意文档,仿冒某网站收集人员信息.CNCERT与该域名注册商及其国家级CERT组织进行了联系,当天该域名注册商就暂停了该域名解析,使其无法访问和使用。2020年2月,CNCERT监测发现大量持续参与对疫情相关的反射攻击,涉及位于多个国家的500余个反射服务器IP.CNCERT与这些国家的CERT组织进行了联系,请其协助处置,对方均积极响应和协调处置,减轻了影响和损失。

### Effective and collaborative handling of cross-border cybersecurity incidents related to COVID-19

In January 2020, CNCERT found that an email address was used to send phishing emails and the URL links under the same domain name provided downloads of malicious documents, imitating a website to collect personal information. CNCERT contacted the registrar of the domain name of that email address and its national CERT, and the domain name registrar suspended the domain name on the same day, making it inaccessible and unusable. In February 2020, CNCERT found a large number of continuous reflection attacks related to COVID-19, involving more than 500 reflection server IPs located in many countries. CNCERT contacted CERT organizations in these countries and asked them to assist in the handling, and they responded and coordinated positively, with further impact and loss being prevented.

## 针对利用memcached服务器实施反射DDoS攻击的跨境处置协作

2019年1月,CNCERT收到中国某互联网企业投诉,其域名自2018年12月一直遭受大流量DDoS攻击,频率为30分钟一次,攻击流量大(50Gbps),多次影响该域名对应业务正常运行,攻击类型以memcache反射为主。黑客通过伪造其IP,向互联网上开放的memcache反射源发送请求数据,这些memcache反射源向其IP回复大量响应数据,超过

其机房入口带宽,导致带宽拥塞。自2019年2月memcache攻击大规模爆发以来,全球范围内开展了针对性治理,将反射源数量降至非常低。但此次攻击事件证实,仍有不少“漏网之鱼”。CNCERT验证整理了22个国家和地区的反射源IP,协调境外CERT组织、境内运营商、云服务商等进行处置。2018年3月发布《关于利用memcached服务器实施反射DDoS攻击的情况通报》,提出处置建议。

### Cross-border cooperation in handling reflective DDoS attacks using memcached servers

In January 2019, CNCERT received a complaint from a Chinese Internet company that one of its domain names has been under DDoS attacks once every 30 minutes in large traffic (50Gbps) since December 2018. The corresponding business was affected and the attack type was mainly memcache reflection. Hackers sent request data to open memcache reflection sources on the Internet by forging their IP addresses. These memcache reflection sources replied with a large amount of response data to their IP addresses which exceeded the entrance bandwidth of their computer room and caused bandwidth congestion. Since the large-scale outbreak of memcache attacks in February 2019, targeted governance has been carried out around the world, reducing the number of reflected sources to a very low level. But there are still many missing ones. CNCERT verified and sorted out the reflection source IPs of 22 countries and regions, and coordinated with related CERTs, Chinese operators, and cloud service providers for disposal. In March 2018, the "Advisory on the Reflective DDoS Attacks Using Memcached Servers" was released, and suggestions for disposal were proposed.



### 针对利用memcached服务器实施反射DDoS攻击的跨境处置协作 Cross-border cooperation in handling reflective DDoS attacks using

# 5G基础设施和数据内生安全的国际化实践

## International Practices of Endogenous Security for 5G Infrastructure and Data

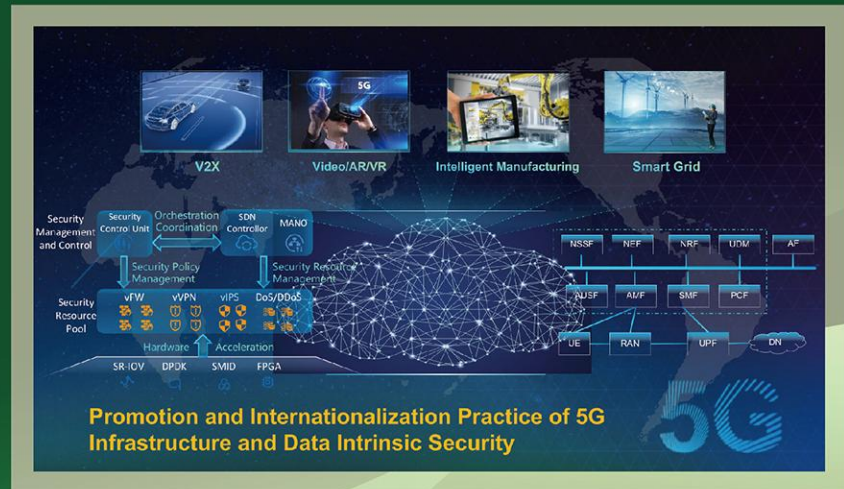
申报机构：中兴通讯股份有限公司

Applying Institution: ZTE Corporation

案例涉及的国家/地区：比利时、孟加拉国、肯尼亚、中国等13个国家和地区

Countries and Regions Covered or Involved in the Implementation:

13 countries and regions such as Belgium, Bangladesh, Kenya, China



## 探索5G内生安全之路, 推进5G基础设施全球规模化建设, 助力数据内生安全国际化实践

Exploring the path of 5G intrinsic security, promoting the large-scale construction of 5G infrastructure worldwide, and supporting the internationalization practice of data intrinsic security

5G与垂直行业的深度融合, 带来了诸多安全挑战。随着融合进程的加速, 维护网络安全、保护关键基础设施将变得更加困难。使5G基础设施具备内生安全能力, 并在全球规模化建设, 受到国际普遍关注, 中兴通讯亦致力于此。

The in-depth integration of 5G and vertical industries has brought more security challenges. With the acceleration of integration, it will be more difficult to assure network security and protect key infrastructure. Enabling the 5G infrastructure with intrinsic security capabilities and promoting large-scale construction worldwide are of widespread international concerns which ZTE is committed to.

## 安全融入血脉, 筑路5G发展

数字时代, 安全威胁来自多方面, 需要精心设计的安全解决方案。5G产品安全是5G安全解决方案的重要基础。

### Security in DNA, Pave the Road to 5G Development

Entering to the digital era, the security threat comes from various aspects, and the security solutions need to be carefully designed. 5G cybersecurity is an important foundation of 5G security solutions.

产品的安全需要标准的保障。中兴通讯是全球5G技术研究、标准制定的主要贡献者和参与者, 深度参与中国和国际化标准化制定工作, 积极推进5G安全方案的标准化建设。中兴通讯已向ETSI(欧洲电信标准化协会)披露5G标准必要专利声明族位居全球第三。

The security of products requires the guarantee of standards. ZTE actively participates in the research of global 5G technology and the formulation of international standards. Besides, it is deeply involved in international mainstream standard organizations and is actively promoting the standardization of 5G security solutions. ZTE ranks third globally in essential 5G patents disclosed by ETSI.



中兴通讯一直致力于向客户交付安全可信的产品和服务, 不断进行自我完善, 并通过了一系列标准认证

*ZTE is committed to delivering secure and trustworthy products and services to customers from the very beginning. ZTE continues to improve itself and has been certified by series of standards.*

中兴通讯一直致力于向客户交付安全可信的产品和服务。中兴5G方案和产品遵循3GPP标准, 具备多种安全特性。中兴通讯持续提升5G产品安全成熟度, 成功通过一系列安全认证, 为运营商和行业客户提供安全可信的5G基础设施。

## 网络安全

Cybersecurity Maintenance

保障网络安全,促进有序发展

Maintaining Cybersecurity to Promote Orderly Development

ZTE is committed to delivering secure and trustworthy products and services to customers from the very beginning. ZTE's 5G solutions and products comply with 3GPP standards and have various security features. It continuously improves the security maturity of 5G products, has been certified by series of standards, and provides operators and industry customers with secure and reliable 5G infrastructure.

## 5G已到,安全先行,5G行业端到端安全赋能

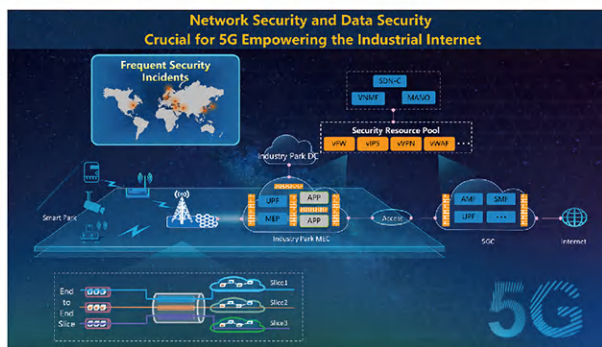
创新的服务化架构、差异化的网络切片、开放的网络能力.....5G的创新能力,为工业互联网催化发展机遇的同时,更带来了诸多安全挑战。网络安全、数据安全成为5G赋能工业互联网的关键。

5G has arrived; Security is the first step, End-to-end security empowerment to the 5G industry

Fostered by innovative service-based architecture, differentiated network slicing, open network capabilities, and others, the innovation capabilities of 5G have catalyzed new development opportunities for industrial internet and brought more security challenges as well. Network security and data security are crucial for 5G empowering the industrial Internet.

中兴通讯5G内生安全防护体系,通过安全能力的智能化编排、安全资源的按需部署和扩展,实现了行业关键数据端到端的安全传输、数据的本地化处理 and 流转,个人用户和行业用户数据的脱敏和隐私性保护,为5G网络提供多方位数据安全防护。

Deploying intelligent orchestration of security capabilities, on-demand deployment, and expansion of security resources, the ZTE 5G intrinsic security protection system implements end-to-end secure transmission of key industry data, data processing-and-transfer localization, personal user and industry user data masking, and privacy protection, which provides multi-direction data security protection for 5G network.



中兴通讯5G内生安全防护体系,为5G网络提供多方位数据安全防护,为工业互联网进行端到端安全赋能

ZTE 5G intrinsic security protection system provides multi-direction data security protection for 5G network, and empowers end-to-end security to the industrial Internet

中兴通讯在中国南京滨江全球5G智能制造基地开展5G+工业互联网业务实践,成功验证了5G技术可定制化的安全能力,既可实现行业共性的安全需求,又可灵活定制行业差异化的安全需求。

The business practices of 5G+ industrial Internet in the ZTE Global 5G Intelligent Manufacturing Base in Binjiang, Nanjing, China have proved the customizable security capability of 5G technology, which can not only meet the common security requirements of the 5G industry, but also flexibly customize the differentiated security requirements of the 5G industry.





中兴通讯在中国南京滨江全球5G智能制造基地成功验证了5G技术可定制化的安全能力

*The customizable security capability of 5G technology has been proved in the ZTE Global 5G Intelligent Manufacturing Base in Binjiang, Nanjing, China*

## 推进全球化共建、国际化实践, 向阳而生

为验证5G内生安全的有效性, 推进基础设施的全球化建设, 中兴通讯携手全球多家运营商和行业客户, 部署5GC/EPC网络, 提供有效的安全防护。

### Promoting Global Co-construction and Internationalization Practice, Born to the Sun

ZTE has built many 5GC/EPC networks around the world and provided effective security protection by working with many operators and industry customers to verify the effectiveness of 5G intrinsic security and push on the global construction of 5G infrastructure.

2020年6月, 携手安特卫普港务局、巴斯夫化工、Convertro、Borealis、Katoen等多家知名企业共同打造5G+智慧港口, 验证了多切片差异化安全防护和高吞吐量安全传输的有效性。

In June 2020, in the 5G SA private network project of Orange Belgium, together with Antwerp Port Administration, BASF Chemical Industry, Convertro, Borealis, Katoen, and many world-famous

enterprises, ZTE has built a 5G+ smart port. It successfully verified the effectiveness of multi-slice differentiated security protection and high-throughput secure transmission.

2021年初, 携手日本大仓打造智慧社区, 构建端到端的5G网络, 实现安全可信的社区接入。2021年7月, 联合蒙古CRC通讯部开通5GC实验局, 成功验证了工业边缘接入的安全可信。

In early 2021, ZTE built a smart community and constructed an end-to-end 5G network by working with Okura which provided intrinsic security capabilities and achieved secure and reliable community access. In July 2021, together with the CRC Ministry of Mongolia, we commissioned the 5GC trial and successfully verified the security and credibility of industry edge access.

2018-2022年, 在VDF、VEON和AIS的vEPC项目中, 为10多个国家和地区的vEPC站点提供安全防护。在中国移动IMS项目中, 为超过1Tbps的业务流量提供安全防护。

In 2018-2022, the vEPC projects of VDF, VEON, and AIS provided security protection for vEPC sites in more than 10 countries and regions. In the China Mobile IMS project, it provides security protection for the service traffic exceeding 1 Tbps.



中兴通讯携手全球多家运营商和行业客户, 推进基础设施的全球化建设和数据内生安全国际化实践

*Working with many operators and industry customers, ZTE promotes the large-scale construction of 5G infrastructure worldwide, and supporting the internationalization practice of data intrinsic security.*

# 防范国际来话诈骗解决方案及应用

## Solution and Application of Preventing International Call Fraud

**申报机构:** 中国信息通信研究院

**Applying Institution:**

China Academy of Information and Communications Technology

**其他参与机构:** 中国电信集团有限公司、中国移动通信集团有限公司、中国联合网络通信集团有限公司

**Participating Parties:** China Telecom, China Mobile, China Unicom

**案例涉及的国家 and 地区:** 美国、英国、印度、南非、苏丹、意大利、西班牙等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as United States, Britain, India, South Africa, Sudan, Italy, Spain



## 在全球倡导并推行国际间主叫号码真实传送, 构筑国际电信网络诈骗“防火墙”, 为用户营造可信的通信网络环境

Advocate the authenticity of international calling party number delivery, build a firewall for international telecommunication network fraud, and create a reliable communication network environment for users.

电信网络诈骗严重侵犯人民群众财产权利和人身权利, 已成为影响人民群众获得感、幸福感、安全感的突出问题, 是国际社会普遍关注的热点问题。中国在电信业务管理、标准制定和防范系统建设方面开展大量实践, 有效遏制了国际电话诈骗的高发态势和虚假主叫号码相关技术滥用, 维护网络空间和平与安全, 为全球防范治理电信网络诈骗提供有益的探索和实践。

Telecommunication network fraud seriously infringes on people's property rights and personal rights and has become a prominent issue affecting people's sense of gain, happiness and security. It is a hot issue of the general concern in the international community. China has carried out a great deal of practice in telecommunication service management, standard development, and system construction in the anti-fraud area. It effectively reduces the high incidence of international call fraud and misuse of technologies related to fake calling numbers, maintains peace and security in cyberspace, and provides globally beneficial exploration and practice for telecommunication network fraud prevention.

## 积极贡献中国经验, 牵头制定国际标准

利用虚假主叫号码骗取用户信任是电信网络诈骗的主要手段。中国一直倡导在通信网络中传送真实电话主叫号码, 早在2001年便制定了《网间主叫号码的传送》通信行业系列标准, 确保中国境内发起的电话传送真实的主叫号码。随后, 中国在ITU-T SG2积极参与E.157国际主叫方号码传送建议书制定和修订, 该建议倡导国际电话传送真实主叫号码, 方便接听用户识别国际来电用户身份。中国还牵头制定M.3362电信管理网中的电信反欺诈管理功能需求建议书, 该建议书定义了电信反欺诈管理功能架构, 供全球各国开发建设相关防范系统时参考。

## Contribute China's experience and take the lead in formulating international standards

It is the main means of telecommunication network fraud to win users' trust by using fake calling numbers. China has always advocated the authenticity of calling party number delivery in the telecommunication network. As early as 2001, China issued a series of standards for calling party number delivery to ensure that the domestic operator transmits authentic calling party numbers to the terminating operator. After that, China actively participated in the formulation and revision of Recommendation ITU-T E.157 International calling party number delivery. This recommendation provides guidance for international calling party number delivery across boundaries of countries and advocates authentic calling party number delivery to facilitate the called party users to identify international calls. Besides, China led the formulation of Recommendation ITU-T M.3362 Requirements for telecommunication anti-fraud management in the telecommunication management network. This recommendation describes the functional framework for combating telecommunication fraud management and provides reference for the development and construction of relevant systems in all countries.



## 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



ITU-T标准E.157和M.3362

Recommendation ITU-T E.157 and M.3362



ITU-T SG2参会代表合影

Group photo of participants in ITU-T SG2 meeting

## 推动国际商业合作, 协作开展源头治理

为进一步推进国际电话传送真实主叫号码, 增强国际来电的安全可信度, 中国运营商与BICS、TATA、HGC、PCCW、CITIC等国际运营商签订合作协议, 明确要求所有发送至中国境内的电话主叫号码必须符合国际电信联盟相关标准和要求, 并建立国际业务协同处理机制, 开展话务源头核查, 确保落实协议约定内容。

Promote international commercial cooperation and work together in source management

In order to further promote the authentic international calling party number delivery and enhance the security and credibility of international calls, Chinese operators have signed cooperation agreements with international operators such as BICS, TATA, HGC, PCCW, CITIC, etc. In the agreements, it is clearly required that all international calling party numbers sent to China must comply with ITU's standards. Chinese operators established an international collaborative processing mechanism with other countries and carry out the source verification to ensure the implementation of the cooperation agreement.



合作协议签约仪式

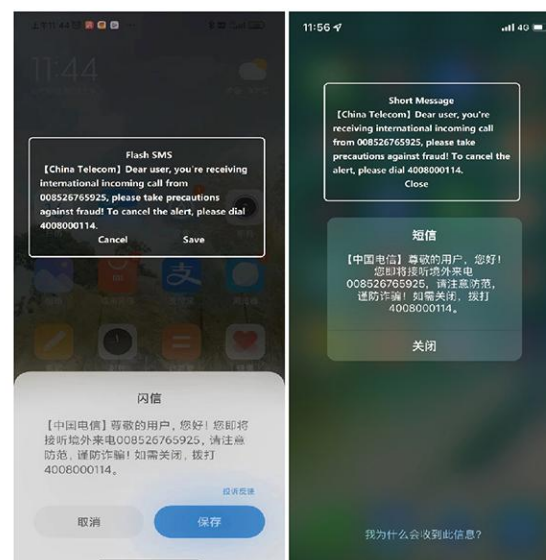
Cooperation agreement signing ceremony

## 建设虚假主叫处置技术手段, 主动提醒用户境外来电

中国工业和信息化部组织通信行业总结国际电信网络诈骗特点, 制定对应的防范技术方案并在全网部署实施。在电信网络方面, 对仿冒中国号码的境外虚假主叫号码来电进行甄别处理, 防范不法分子在境外冒充中国电话号码实施诈骗。2021年, 累计处置仿冒中国号码的境外来电7631.4万次。在用户提醒方面, 通过短信、闪信、APP等方式为收到境外来电的用户免费提供来话提醒, 帮助用户识别境外来电, 提高用户警惕。2021年, 累计向用户发送33.15亿次境外来电提醒。

### Build technical means for handling fake calling party numbers and remind users of international calls

The Ministry of industry and information technology of China organized the communication industry to formulate and implement anti-fraud plans according to the characteristics of international call fraud. In terms of telecommunications networks, China takes measures against international calls that fake calling party number with Chinese phone numbers. The suspicious calling party numbers are monitored, identified and dealt by using various precautions to prevent fraud. In 2021, a total of 76.314 million international calls with fake Chinese calling numbers were handled. In terms of user reminding, China provides free incoming call reminders for users who receive international calls by means of short messages, flash SMS, APP, etc. The purpose of the reminding is to help called party users identify international calls and improve their vigilance. In 2021, a total of 3.315 billion international incoming call reminders were sent to users.



国际来话用户提醒  
International incoming call reminders

## 基于零信任的绿盟全球安全访问服务边缘

### Zero Trust-based NSFOCUS Global Secure Access Service Edge (SASE)

**申报机构:** 绿盟科技集团股份有限公司

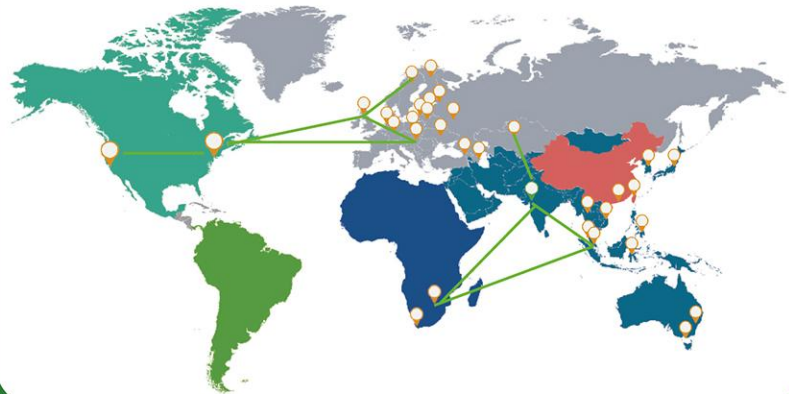
**Applying Institution:** NSFOCUS Technologies Group Co.

**案例涉及国家和地区:** 中国、新加坡、南非、俄罗斯、巴西、美国、日本、英国、德国

**Countries and Regions Covered or Involved in the Implementation:**

China, Singapore, South Africa, Russia, Brazil, United States, Japan, United Kingdom, Germany

SASE 网络管理监控平台



## 通过全球安全访问服务边缘 (SASE) 服务, 高效迅速的帮助政府及企业实现远程办公及分支机构的网络安全保障。

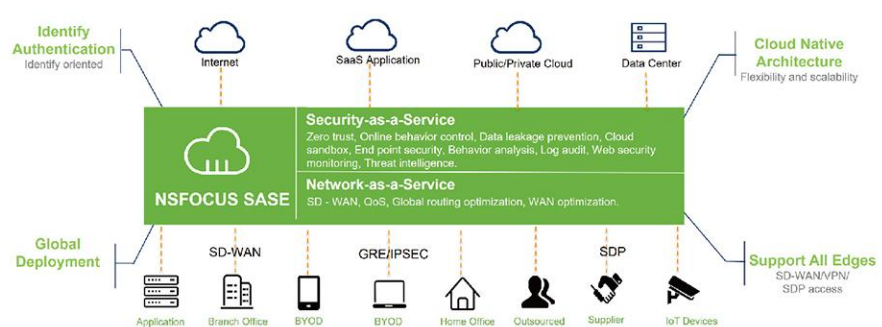
NSFOCUS Secure Access Service Edge (SASE) is designed to help enterprises and governments to secure their private and public applications when working from home and protect their subsidiaries and branches in an effective way.

各国企业及政府在数字化转型中, 面临远程办公安全和效率兼顾难、多分支安全建设成本高、维护难、运营难等传统网络安全架构难以解决的问题。企业及政府需要一种更适用的网络+安全综合服务解决方案。

On the way to digital transformation, enterprises and governments around the world are encumbered with various challenges including unsecured and inefficient access to private and public applications when working from home, incurring high cost, and lack of maintenance while planning, building, and operating cybersecurity systems for their subsidiaries and branches. These problems can hardly be resolved with traditional cybersecurity architectures. Therefore, Enterprises and governments are in urgent need of a simple and affordable solution that integrates network and security services.

## 核心价值: 通过网络及安全技术创新, 大大简化网络安全系统建设及维护工作

绿盟安全访问服务边缘服务集成了零信任、软件定义边界SDP、Web应用防护、数据防泄露等众多领先技术, 依托于遍布全球的服务节点、网络和安全运营中心, 为客户提供包括零信任访问控制、云安全Web网关、云防火墙功能在内的一体化SaaS安全服务。



绿盟科技全球安全访问服务边缘全景图  
NSFOCUS Secure Access Service Edge Overview

Customer Value: Significantly simplified design, built-in and operation of a cybersecurity system

NSFOCUS Secure Access Service Edge (SASE) incorporates zero trust, software-defined perimeter (SDP), web application protection, data loss prevention (DLP), and other state-of-the-art technologies. Powered by globally distributed service nodes, networks, and security operations centers (SOCs), it provides integrated security-as-a-service including zero-trust network access, secured web gateway (SWG), and firewall-as-a-service (FWaaS).

## 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development

绿盟SASE将传统IT建设化整为零, 化繁为简, 企业可按月、按功能模块订阅SASE服务, 无需一次性硬件投入, 同时也节省了运营、维护、升级和硬件更新等成本。使用SASE的企业可降低网络安全投入达30%以上, 提升人员办公效率45%以上。

NSFOCUS SASE allows customers to subscribe to SASE services on monthly basis and offers full flexibility to choose between functions needed. This eliminates initial investment into hardware and reduces operation and maintenance costs. Enterprises using NSFOCUS SASE can cut down their cybersecurity investments by over 30% and improve their productivity by over 45%.

政府、大企业及中小企业可以随时快速接入服务, 获得全面的安全保护。服务对象囊括了金融、能源、通信网络、政企等诸多全球TOP50企业及各类中小型企业。

NSFOCUS's customers include the world's top 50 organizations in finance, energy, service providers, governments, and enterprise sectors as well as various small and medium-sized businesses.

## 开放合作: 结合绿盟网络安全技术和各国本地资源, 联合建设本地化服务

为了实现SASE服务的广覆盖, 绿盟科技同各国合作伙伴共同建设及运营SASE服务节点。通过创新的商业模式, 实现低初始投入及快速投放市场, 充分利用各方资源有效触及更多政府及企业用户。

**Openness: Combine cybersecurity technologies with local resources to offer localized services**

NSFOCUS works with local partners to build and operate its global SASE service nodes. NSFOCUS introduced an innovative business model to minimize the initial cost and time to market, utilizing resources from partners and third-party to extend the services to wide range of users.



绿盟科技同各国合作伙伴联合进行安全服务建设  
*NSFOCUS working with local partners to build a Security-as-a-Service*

绿盟科技同合作伙伴共同建立了覆盖全球时区的双语安全运营中心SOC。无需用户自建安全团队的同时, 也提升了当地合作伙伴的安全运营能力。

NSFOCUS also established its 7/24 Security Operation Centers with local partners to provide expert support to customers across the world. This would benefit customers with less dedicated IT and Cybersecurity teams and also enhance the cybersecurity knowledge and practice of local partners.

## 命运共同体: 将网络安全技术赋能给本地服务提供商, 进而惠及本地政府及企业

绿盟科技联合各国合作伙伴, 一直致力于通过实践, 弥补不同国家和地区的信息鸿沟, 为解决全球网络空间治理的平衡性、差异性问题上做出一份贡献。

**Enablement: Deliver technical know-how to enable local partners with Security-as-a-Service to benefit local enterprises and government.**

NSFOCUS, in collaboration with its global partners, has been working on bridging the digital divide between countries and regions, contributing to a balanced and consistent cyberspace governance.

SASE是快速有效提升政府企业网络安全能力的有效方案, 然而其发展仍非常不平衡, 据2021年数据, 北美和欧洲地区合计占据了约88%的市场份额。全球其它地区仅12%。

As a recognized best practice method for effective cybersecurity solutions to enterprises and governments, SASE utilization is still unbalanced across the globe. In 2021, North America and Europe together took up about 88% of the global SASE market with only 12% left into other regions.

通过发展各国运营商、网络服务商等作为合作伙伴，SASE致力于提升“一带一路”沿线各国政府及企业客户的网络安全保障水平，帮助社会实现高效的网络空间治理，支撑各国政府实现数字主权。

Powered by the company's cooperation with worldwide Service Providers and Telcos, NSFOCUS SASE is aiming to improve the cybersecurity capability of government and enterprise customers from countries along the Belt and Road initiative, helping them achieve more efficient cyberspace governance and supporting their digital sovereignty objectives.



绿盟科技Provider for Providers安全赋能战略  
NSFOCUS Provider for Providers Strategy

网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development

## 360安全国际化 助力全球数字安全有序发展

360 Total Security Helps the Global Digital Security to Develop Orderly

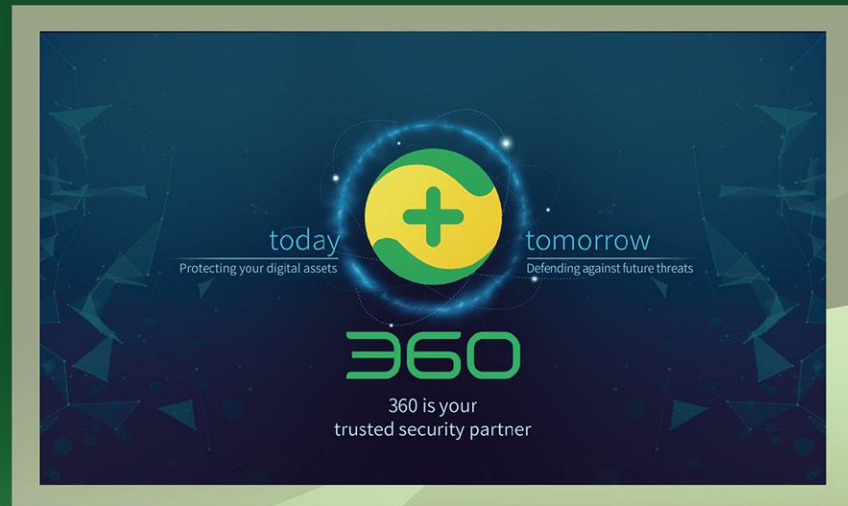
申报机构: 三六零安全科技股份有限公司

**Applying Institution:** 360 Security Technology Inc.

案例涉及的国家 and 地区: 俄罗斯、墨西哥、哥伦比亚、阿根廷、德国、美国等国家和地区

**Countries and Regions Covered or Involved in the Implementation:**

Countries and regions such as Russia, Mexico, Colombia, Argentina, Germany, United States



## 360安全国际化 致力于全方位守护全球用户数字安全

360 Total Security strives to protect the digital security of global users in all aspects

面对全球互联网带来的机遇和挑战, 360公司利用自己在数字安全领域多年的深耕及探索, 向全球用户正式推出了全新设计的PC安全产品360安全卫士国际版-360 Total Security, 致力于全方位守护用户网络安全, 使用户远离APT(高级持续性威胁)攻击、木马病毒、勒索病毒、漏洞入侵等威胁。

In the face of the opportunities and challenges brought by the global Internet, Qihoo 360 has made use of its years of deep cultivation and exploration in the field of digital security to officially launch a newly designed PC security product - 360 Total Security, to users all over the world. It strives to protect user network security in all aspects and keep users safe from threats such as APT(Advanced Persistent Threat) attacks, Trojan horses, ransomware, and vulnerability intrusions.

### 创新自研五大安全引擎 多层防护保障数据安全

360安全卫士国际化产品操作简单, 功能强大, 创新性内置360自研的五大引擎: 360云查杀引擎、360QVMII人工智能引擎、QEX脚本查杀引擎、鲲鹏引擎和360系统修复引擎, 强力对抗勒索软件等各类病毒, 多层防护体系为海外用户提供安全无忧的上网体验, 让用户免受钓鱼网站、木马的威胁, 保护用户的隐私和账户安全。截止2022年, 360安全国际化产品(360 Total Security)已经支持11种语言, 超200多个国家的1000多万用户在持续使用, 无论是个人还是企业, 360均能提供全方位的支持, 助力构建全球化数字安全体系。

Five innovative proprietary security engines, and multi-layer protection to ensure data security

360 Total Security is simple yet powerful. Its built-in five major engines developed by 360 company include 360 Cloud Killing Engine, 360 QVMII Artificial Intelligence Engine, QEX script Killing Engine, KunPeng Engine, and 360 System Repair Engine which can strongly fight against ransomware and other viruses. The multi-layer protection

system provides overseas users with a safe and risk-free online experience, keeping them away from phishing websites and Trojan threats, and protecting their privacy and account security. As of 2022, 11 languages are supported in 360 Total Security and more than 10 million users in more than 200 countries are using it continuously. Whether it is an individual or an enterprise, 360 can provide them with a full range of support and help to build a global digital security system.



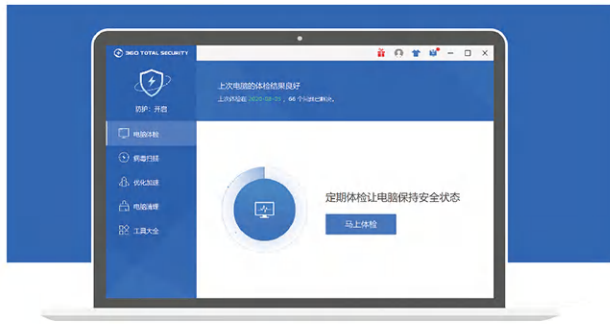


## 网络安全

Cybersecurity Maintenance

保障网络安全,促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



产品界面

360 Total Security

## 360安全大脑赋能 提供全方位反勒索解决方案

2017年5月WannaCry勒索病毒全球大爆发,超150个国家30万名用户中招,造成损失达80亿美元,影响到金融,能源,医疗等众多行业,造成严重的危机管理问题。病毒爆发之后,360安全卫士紧急推出多语言的文件恢复工具,帮助全球众多病毒受害者成功恢复资料,成功遏止WannaCry进一步蔓延。此后,360上线全球可用的“解密库”,形成一套整合了病毒免疫、防御、查杀、解密的反勒索解决方案,并及时发布全球勒索病毒的最新动态,全方位保护用户的数据安全。

## 360 Security Center empowers to provide a full range of anti-ransomware solutions

In May 2017, the WannaCry ransomware broke out all over the world and 300,000 users in over 150 countries were caught resulting in a loss of 8 billion dollars, which affected many industries including finance, energy, medical care, etc., and caused serious crisis management problems. After the virus outbreak, 360 Security Center urgently launches a multilingual file recovery tool, helping many virus victims around the world to successfully recover their data, and preventing the further spread of WannaCry successfully. Later on, 360 launched the globally available "decryption library", building a set of anti-ransomware solutions that integrate virus immunity, defense, killing, and decryption, and timely release the latest developments of global ransomware to protect users' data security in all aspects.



## 开放协作 持续深耕国际间合作

秉承开放协作的宗旨, 360积极开展国际化合作。经过多年深耕, 全球已有数千家政府和企业采用了360公司的安全服务。2018年, 360安全国际化与哥伦比亚昆迪纳马卡大学达成合作, 助力防护教育安全; 2019年, 斯里兰卡卫生部采用360国际安全服务, 战略合作持续多年; 2020年, 中国澳门司法局与360国际产品合作; 2021年, 墨西哥奇瓦瓦市政府采购数千台360安全服务设备; 2022年, 保加利亚普列文管理局加入360国际安全产品服务队列.....越来越多的国际政府和企业采用360安全产品服务, 360安全国际化也会持续加强与全球各大企业的合作, 致力于让全球企业的数字化管理更轻松, 更安全。

## Open and Collaborative, Continue to Deepen International Cooperation

Adhering to the tenet of openness and collaboration, 360 actively develops international cooperation. After years of deep cultivation, many governments and enterprises around the world have adopted Qihoo 360 security services. In 2018, 360 Total Security reached a cooperation agreement with Cundinamarca University in Colombia to help protect education security. In 2019, the Ministry of Health of Sri Lanka adopted 360 Total Security services and the strategic cooperation has lasted for many years. In 2018, the Chihuahua Municipal Government of Mexico purchased thousands of 360 security service equipment. In 2022, the Bulgarian Plevn Administration joined the queue of 360 Total Security products and services. Large number of international governments and enterprises are using 360 security products and services. The company will continue to strengthen cooperation with major companies around the world and strive to make the digital management of global companies easier and more secure.



斯里兰卡卫生部采用360国际安全服务

*Sri Lanka's Ministry of Health adopts 360 Total Security Services*

# “一带一路”卫星遥感系统网络安全解决方案

## Cybersecurity Solution for Satellite Remote Sensing System of "Belt and Road"

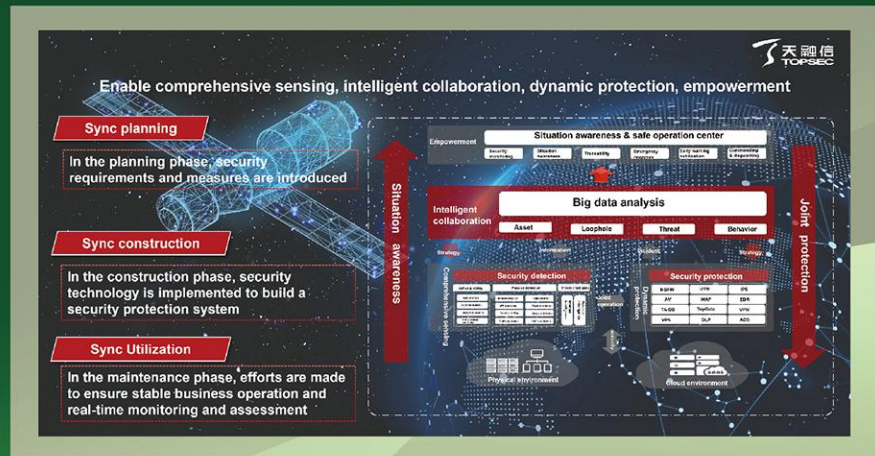
申报机构: 天融信科技集团股份有限公司

Applying Institution: Topsec Technology Group Co., Ltd.

案例涉及的国家 and 地区: 中国、老挝、泰国、缅甸、柬埔寨、埃及、委内瑞拉、阿尔及利亚、巴基斯坦

### Countries and Regions Covered or Involved in the Implementation:

China, Laos, Thailand, Myanmar, Cambodia, Egypt, Venezuela, Algeria, Pakistan



## 构建“一带一路”卫星遥感一体化网络安全纵深防御体系, 切实提升卫星遥感系统的网络安全防御能力。

Build the "Belt and Road" satellite remote sensing integrated cybersecurity defense-in-depth system, and effectively improve network security defense capabilities of the satellite remote sensing system.

中国遥感技术的应用促进了近十个国家在基础设施建设、能源开发、城市规划等领域的发展, 天融信基于遥感系统业务特点, 推出《“一带一路”卫星遥感系统网络安全解决方案》, 形成“全面感知、智能协同、动态防护、聚力赋能”的卫星遥感系统综合安全保障体系。

The application of China's remote sensing technology has promoted the development of nearly ten countries in the fields of infrastructure construction, energy development, and urban planning. Based on the characteristics of remote sensing system services, Topsec launches Cyber Security Solution for Satellite Remote Sensing System of "Belt and Road", building a comprehensive security system for satellite remote sensing systems featuring comprehensive sensing, intelligent collaboration, dynamic protection, and empowerment.

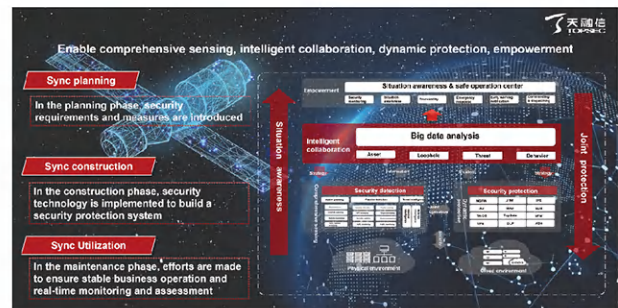
### 全面感知, 主动发现精准定位安全风险

委内瑞拉遥感卫星地面应用系统是委内瑞拉遥感卫星的重要组成部分, 该地面系统的建成, 使得委内瑞拉具备了自主观测本国领土的能力。

#### Comprehensive sensing, proactively discovering and accurately locating security risks

The Venezuelan Remote Sensing Satellite Ground Application System is an important part of the Venezuelan remote sensing satellite. With the ground application system, Venezuela can independently observe its own territory.

发现问题往往比解决问题更重要。在委内瑞拉卫星遥感系统网络安全体系建设过程中, 我们首先是帮助其构建全面的感知能力, 通过主动探测、被动监测同时结合委内瑞拉乃至全球重要的网络安全威胁情报, 及时发现卫星遥感系统在卫星侧、通信侧、地球站侧可能存在的安全风险, 从而做好充分的应对。



#### 天融信“一带一路”卫星遥感系统网络安全解决方案

#### Topsec Cyber Security Solution for Satellite Remote Sensing System of "Belt and Road"

Identifying problems is often more important than solving them. During the construction of the cyber security system of Venezuelan Remote Sensing Satellite System, we first helped Venezuela to build comprehensive sensing capabilities. Through proactive detection and passive monitoring, combined with important cyber security threat intelligence in Venezuela and even around the world, we can discover potential security risks of the satellite remote sensing system on the satellite side, communication side, and the earth station, and take measures to handle the risks.

## 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



委内瑞拉遥感卫星地面应用系统 (图片来源: 航天恒星)

Venezuelan Remote Sensing Satellite Ground Application System (Source: Space Star Technology Co., LTD)

## 智能协同、动态防护, 快速封堵安全威胁

2018年, 中国在酒泉卫星发射中心, 成功将巴基斯坦遥感卫星一号发射升空。卫星在轨稳定运行的4年中, 在巴基斯坦国土资源普查、环境保护、灾害监测以及城市规划等多个发挥重要作用。

Intelligent collaboration and dynamic protection, quickly blocking security risks

In 2018, China successfully launched Pakistan Remote Sensing Satellite No. 1 from the Jiuquan Satellite Launch Center (JSLC). During the four years of stable operation of the satellite in orbit, the satellite has played an important role in Pakistan's land and resource census, environmental protection, disaster monitoring, and urban planning.

“巴遥一号”的稳定运行与其全面的网络安全防护能力不无关系。在方案设计时, 我们重点考虑的是帮助其构建动态的安全防护能力。通过探测设备、平台系统、外部情报及时发现网络安全威胁, 通过基于大数据技术的智能协同系统将感知到的信息结合卫星遥感系统的实际应用场景进行深度分析, 快速定位痛点, 制定安全策略并自动下发, 驱动各类安全引擎作出动态调整, 从而实现已知、未知威胁的快速封堵, 切实提升卫星遥感系统的网络安全防护能力。

The stable operation of Pakistan Remote Sensing Satellite No. 1 is indispensable to its comprehensive cyber security protection capabilities. During solution design, we focused on helping Pakistan to build dynamic security protection capabilities. Through detection devices, platform systems, and external intelligence, cyber security threats are discovered in a timely manner. Moreover, through the intelligent collaboration system based on big data technology, the detected information is deeply analyzed considering actual application scenarios of the satellite remote sensing system. By doing this, the solution can quickly locate pain points, formulate security strategies and automatically deliver them, and drive various security engines to make dynamic adjustments so as to rapidly block known and unknown threats and effectively improve cyber security protection capabilities of the satellite remote sensing system.



巴基斯坦遥感卫星一号地面应用系统 (图片来源: 航天恒星)

Pakistan Remote Sensing Satellite No. 1 Ground Application System (Source: Space Star Technology Co., LTD)

## 聚力赋能, 护航卫星遥感系统安全运行

除上述国家外, 天融信《“一带一路”卫星遥感系统网络安全解决方案》已在老挝、泰国、缅甸、柬埔寨、阿尔及利亚等多个国家落地实践。通过应用基于天融信自主研发的安全防护、安全检测、安全接入、安全审计、大数据分析等各类安全产品, 提供包括安全监控、态势感知、预警通报、应急响

应等在内的安全能力, 实现聚力赋能。为卫星遥感系统的网络安全传输、地面站安全稳定运行提供了有力保障, 得到了各国的高度认可, 为中国与“一带一路”沿线国家开展长效稳定的合作打下了坚实基础。

### Empowerment, guaranteeing safe operation of satellite remote sensing system

In addition to the above-mentioned countries, Topsec's Cyber Security Solution for Satellite Remote Sensing System of "Belt and Road" has been implemented in Laos, Thailand, Myanmar, Cambodia, Algeria, and other countries. The solution uses Topsec-developed security products that integrate security protection, security detection, security access, security audit, and big data analytics. It provides security capabilities including security monitoring, situation awareness, pre-warning notification, and emergency response, which then achieves empowerment. It has provided strong guarantee for cyber security transmission of the satellite remote sensing system, and safe and stable operation of the ground station which has been highly recognized by these countries. It has laid a solid foundation for long-term and stable cooperation between China and countries along the "Belt and Road".



老挝通信卫星地面站 (图片来源: 航天恒星)

Laos Communication Satellite Ground Station (Source: Space Star Technology Co., LTD)

## 开放融合, 助力打造“一带一路”沿线的天地海之眼

中国遥感、导航和通信卫星已达到国际先进水平, 卫星遥感系统关系国计民生, 然而由于缺乏网络安全建设标准, 系统的网络安全问题影响着业务稳定运行。

### Openness and integration, helping to create the eye of space, earth, and sea along the "Belt and Road"

China's remote sensing, navigation, and communication satellites have reached the advanced level in the world. The satellite remote sensing system is related to the national economy and people's livelihood. However, due to the lack of cyber security construction standards, the system's cyber security issues affects the stable operation of the business.

天融信作为中国“走出去”的网络安全代表企业之一, 在卫星遥感系统网络安全解决方案方面已积累了丰富的经验, 将“本土优势”成功转化为“国际优势”, 加强了中国与各个国家在基础设施建设、能源开发、环境保护、安全保障、贸易拓展等重点领域的合作, 为维护国际网络空间安全贡献着自己的力量。

As one of China's cross-border cyber security representative enterprises, Topsec has accumulated rich experience in cyber security solutions for satellite remote sensing systems, successfully transforming "local advantages" into "international advantages". This strengthens cooperation between China and various countries in key fields such as infrastructure construction, energy development, environmental protection, security assurance, and trade expansion. Topsec contributes to the maintenance of international cyberspace security.

网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development

# 微软XDR+SIEM打造全球一体的数字威胁防御体系

Building a Global Digital Threat Protection and Security  
Operations Center by Using Microsoft XDR+SIEM Platform

申报机构: 微软

**Applying Institution:** Microsoft

案例涉及国家和地区: 美国、加拿大、英国、德国、澳大利亚、新西兰、中国、日本、韩国、印度

**Countries and Regions Covered or Involved in the Implementation:**

United States, Canada, United Kingdom, Germany, Australia, New Zealand, China, Japan,  
South Korea, India



## 今天, 抵御网络威胁不应再是一种地区或技术局部范围的被动响应, 而是要汇总全球网络威胁情报, 主动且全面的预防性方法论和技术实施框架。

Nowadays, defending against cyber threats should no longer be a reactive, regional, or partial technical response, but should be done via a proactive and comprehensive preventative methodology and technical implementation framework that aggregates global cyber threat intelligence.

随着信息网络技术以及数字化转型在各行各业的不断深入, 我们的企业和组织在享受数字技术带来的积极变革的同时, 更要面对层出不穷的网络威胁。2019年“新冠”疫情的爆发加速了企业和组织数字化的进程, 同时也加剧了网络威胁的蔓延。传统的防御式安全体系已经不再适用于现今的网络环境。企业和组织更加需要一种依赖于先进技术的、主动式、预判性且全方位的威胁检测和响应体系, 同时结合现代化安全运营的思维及工具, 来加固各种系统和应用, 保护一切数字资产。

With the continuous transformation of IT networking technology and the digitalization of every industry, all aspects of organizations now face endless cyber threats alongside the clear benefits brought about by new technologies. The beginning of the pandemic in 2019 accelerated the process of digitalizing businesses and other organizations while also supporting the spread of cyber threats. Traditional security systems are no longer sufficient for today's network environment. Organizations need a modern, proactive, and comprehensive threat detection and response system. At the same time, they need to be equipped with the ways of thinking and concrete tools necessary for operating a modern security system in protecting their digital assets.

### 变被动为主动, 从单点到全局

企业和组织信息化建设步伐的不同, 许多企业和组织所采用的安全类解决方案还停留在单点式、被动防御的阶段。虽然采用了众多厂商的众多安全方案, 但又不免有空白和交叠。Microsoft 提供的现代化安全运维框架, 通过集成的XDR (Extended Detect & Respond 扩展检测和响应) 工具和SIEM (Security Information & Event Management 安全信息和事件管理), 把安全管理从复杂的威胁响应和无数



需要监测管理的系统中抽离出来, 实现主动、全面、统揽全局的安全运营思维和技术体系。借助遍及全球的“安全信息图谱”和全球安全合作伙伴联盟, 以及人工智能、大数据、深度学习等技术加持, 自动实现全栈主动威胁检测, 包括诸如服务器、虚拟机环境、网络、数据库平台、身份和访问系统、邮件和办公应用、跨平台终端设备、IoT环境、云、应用平台、开发平台等系统的检测、警报、阻断、修复、溯源等一系列动作。



## 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

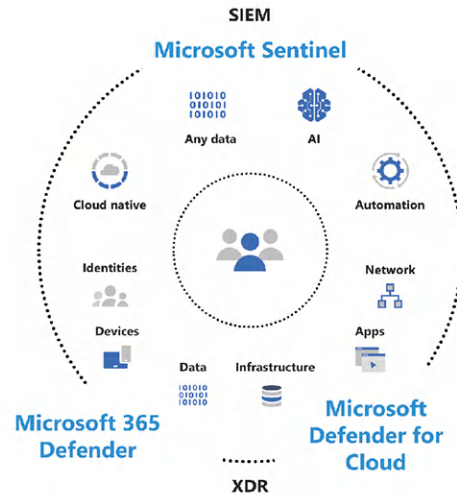
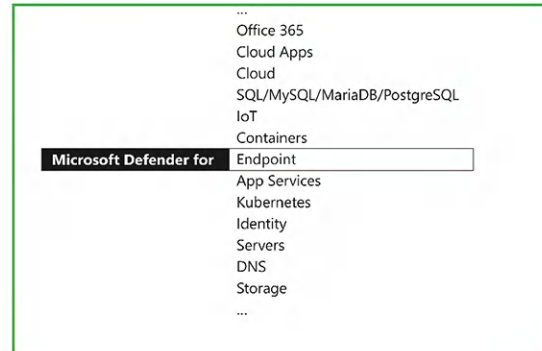
Maintaining Cybersecurity to Promote Orderly Development

### Go from passive to active, single point to full scope

A key differentiator among many organizations undertaking informatization is that many opt for passive, single-point security solutions. They may try to use multiple providers' security solutions in parallel, but they will inevitably be left with gaps and unnecessary overlaps. Microsoft's modern security framework, through its integrated XDR (Extended Detect & Respond) tools and SIEM (Security Information & Event Management), takes security management from being complex and requiring constant monitoring to operating as a proactive and comprehensive technical system. With the help of a global Security Information Visualization and an alliance of global security partners, as well as the benefits of AI, big data, deep learning, and other technologies, it automatically delivers full-stack active threat detection, including for servers, virtual machine environments, networks, and database platforms. It further provides threat detection, alarms, blocking, repairs, and traceability for identity and access systems, email and office applications, cross-platform terminal devices, IoT environments, cloud, application platforms, and development platforms.

### 分析全球海量威胁信号, 开放连接多元化安全平台

微软通过每天对数以亿计的安全威胁信号的深入分析, 将这些警报通过AI关联在一起以协调安全响应动作。通过SIEM和XDR的结合, 企业和组织的安全人员可以拥有比以往更多的可见性、威胁调查的上下文并以自动化的方式修补潜在的威胁漏洞, 并且主动搜索和实施威胁防御, 简单到只需单击几下即可集成所有第一方或第三方安全产品或服务, 并将其与整个企业中的所有安全数据相结合。



Analyze massive volumes of global threat signals and connect diverse security platforms

Conducting an in-depth analysis of hundreds of millions of security threat signals daily, Microsoft correlates alerts through AI to coordinate its security response. With the combination of SIEM and XDR, organizations' security personnel can have more visibility than ever before, more context for threat investigations, and automated solutions to address potential threat vulnerabilities. In addition to that, it enables security personnel with the proactive protection against threats with as little as a few clicks to integrate first-and-third-party security products and services to merge security data across the organization.

多重防护 硬核实力					
1亿	微软云应用安全服务 (MCAS) 保护超过1亿用户	2.4亿	每月有近2.4亿人使用无密码登录	5亿	Azure AD拥有超过1/3的月度活跃用户
24万份	微软每天处理和生成超过24万份的安全信号	25亿	每天有超过25亿个由AI驱动的Defender云查询	300亿	Azure AD每天处理超过300亿个身份认证
50亿	微软合规工具每月对超过50亿份文档进行分类分级	4Pb	Microsoft Sentinel每月从Azure、AWS、on-prem等平台分析超过4Pb的数据		
9.6亿	Microsoft Defender for Endpoint拦截9.6亿恶意软件威胁 (2021年)	256亿	Azure AD预防了256亿次暴力破解认证攻击 (2021年)	357亿	Microsoft Defender for Office 365阻止了357亿恶意邮件 (2021年)

借助XDR+SIEM集成的解决方案, 微软可以每天处理全球超过24万亿的安全信号, 每天支持超过25亿次基于AI的Defender查询, 处理超过300亿次身份认证并对潜在的风险进行预警。Microsoft Sentinel每月分析超过4PB的数据。仅在2021年, Microsoft Defender for Endpoint (XDR组件之一) 累计拦截超过9.6亿恶意软件威胁, Microsoft Defender for Identity (XDR组件之一) 阻断了超过256亿次针对身份的暴力破解攻击, Microsoft Defender for Office 365 (XDR组件之一) 成功阻止超过357亿次恶意和可疑的电子邮件威胁。

Deploying its XDR+SIEM integrated solutions, Microsoft processes more than 24 trillion security signals around the world daily, supports more than 2.5 billion AI-based Defender queries, processes more than 30 billion identity authentications, and warns of potential risks. Microsoft Sentinel analyzes over 4PB of data per month. In 2021 alone, Microsoft Defender for Endpoint (one of the components of XDR) cumulatively blocked more than 960 million malware threats; Microsoft Defender for Identity blocked more than 25.6 billion brute force attacks against individuals' identities, and Microsoft Defender for Office 365 successfully blocked over 35.7 billion malicious and suspicious email threats.

## 现代化安全运营理念备受业界青睐

微软的XDR+SIEM解决方案受到全球客户和分析师的青睐主要是因为融合了针对现今威胁的现代化安全运营思维, 提供了通过安全平台挂接全局安全产品和解决方案的能力, 相比单点式解决方案, 这样的全局设计在面向现代化网络威胁形势下显现出了独有的优势。

### Industry prefers a modernized safety operations concept

Microsoft's XDR+SIEM solution is favored by customers and analysts around the world mainly because it integrates modern security operations thinking against today's threats and provides the ability to bring together global security products and solutions through a single security platform solution. In the face of modern network threats, this globalized design has unique advantages.

- 微软的安全服务在五个领域都被Gartner定位为“领导者”象限地位, 分别是访问管理、云访问安全代理、企业信息保护、终端保护平台、统一终端管理。Gartner认为: Microsoft Defender和内置的保护引擎在过去的一年中都呈指数级增长。跨越微软产品的深度整合提供了难以复制的安全能力。通过减少第三方插件来提高稳定性和性能的证据是不容忽视的。

- Gartner has placed Microsoft's security services in its leaders' quadrant in five areas: access management, cloud access security agent, enterprise information protection, endpoint protection platforms, and unified endpoint management. According to Gartner, both Microsoft Defender and its built-in protection engine have grown exponentially over the past year. Deep integration across Microsoft products provides security capabilities that are difficult to replicate. The improved stability and performance that arise from reductions in third-party plugins are hard to ignore.

- 同时, 微软还被Forrester在9个领域定义为“领导者”地位, 分别是: 安全分析平台(SIEM), 企业邮件安全、终端安全SaaS, 统一终端管理、非结构化数据安全平台、云安全网关、IdaaS。值得一提的是, 在2021年10月Forrester最新的“Forrester New Wave”报告中, 微软荣获扩展检测和响应平台(XDR)领导者象限评价。

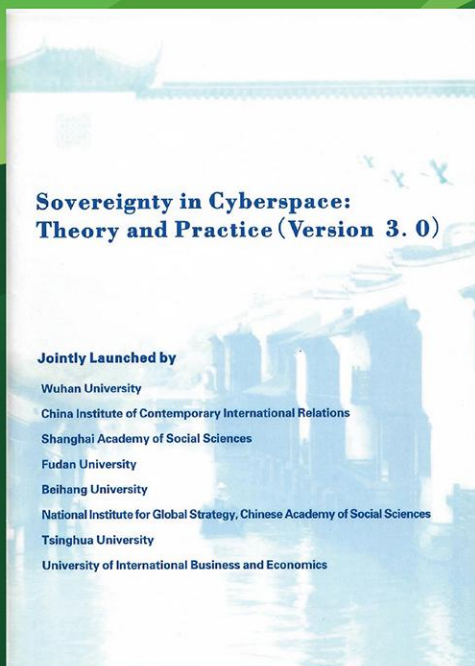
- Microsoft was also identified as a leader by Forrester in 9 areas, namely: Security Analysis Platform (SIEM), Enterprise Email Security, Endpoint Security SaaS, Unified Endpoint Management, Unstructured Data Security Platforms, Cloud Security Gateway, and IdaaS. It is worth mentioning that in Forrester's latest report from October 2021, Microsoft was awarded the designation of leader for its Extended Detection and Response Platform (XDR).

网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



## 《网络主权:理论与实践》成果文件

The Research Report Sovereignty in Cyberspace:  
Theory and Practice

申报机构: 武汉大学

Applying Institution: Wuhan University

案例涉及的国家地区:

中国、美国、俄罗斯、德国、法国、荷兰、芬兰等国家和地区

Countries and Regions Covered or  
Involved in the Implementation:

Countries and regions such as China, United States,  
Russia, Germany, France, the Netherlands, Finland

## 凝聚国际共识, 在尊重网络主权基础上构建公正合理的网络空间国际秩序, 共同构建网络空间命运共同体

Forging international consensus, constructing a fair and reasonable international order for cyberspace governance, and jointly building a community with a shared future in cyberspace on the basis of respecting sovereignty in cyberspace

作为来自十余家学术机构和智库的数十名国际知名专家(包括咨询专家)历时三年半持续努力的结果,《网络主权:理论与实践》成果文件积极呼应《联合国宪章》确立的主权平等原则适用于网络空间的立场,清晰界定并系统阐述了信息时代网络主权的概念、基本原则与实践进程。

The research report “Sovereignty in Cyberspace: Theory and Practice (hereinafter ‘the report’)”, outcome of the in-depth involvement of dozens of prestigious experts (including consulted experts) from more than 10 academic institutions and think-tanks around the world within a period of three and a half years. It positively echoes the internationally recognized standpoint that the principle of sovereign equality enshrined in the Charter of the United Nations applies in cyberspace, and clearly defines as well as systematically elaborates on the concept, basic principles and practice of cyberspace sovereignty in the information age.

### 2019年10月发布的文件1.0版开始“试水”

网络主权是一个在国际社会广受关注而又众说纷纭的问题。以成果文件的形式对网络主权的概念和内涵加以阐释,是一项没有先例的开创性工作。鉴于网络主权的新颖性和复杂性,参与该项目的专家们将成果文件的撰写定位为一个开放和持续的进程,力图务实、稳步地推进这项工作。该文件1.0版的“试水”包含网络主权的概念、行使网络主权的基本原则、网络主权的实践进程三个部分,共2500余字。自2018年3月项目启动以来,这些内容经历了超过一年半的反复打磨。2019年10月,文件1.0版由武汉大学、中国现代关系研究院和上海社会科学院在第六届世界互联网大会网络空间国际规则分论坛发起,各国专家对该文件予以欢迎并给予较高评价。

### The Version 1.0 of the report released in October 2019 began to ‘test the water’

The issue of sovereignty in cyberspace has received worldwide attention but remains controversial. Elaborating on the concept and contours of sovereignty in cyberspace in the form of a document-style report is a pioneering endeavor without precedent. Given the novelty and complexity of sovereignty in cyberspace, the experts involved in the project decided to move forward in a step-to-step, pragmatic manner with different versions of the report released in different years. Version 1.0, serving as an attempt to ‘test the water’, mainly focused on three aspects, i.e. the concept of sovereignty in cyberspace, fundamental principles of sovereignty in cyberspace, and sovereignty in cyberspace in practice. Since the launch of the project in March 2018, the experts spent more than one and a half year to carefully studying the topic, trying to incorporate all reasonable perspectives and views into the report. In the end, Version 1.0 of the report released under the auspice of Wuhan University, China Institute of Contemporary International Relations, and Shanghai Academy of Social Sciences at the Forum on International Rules for Cyberspace of the sixth World Internet Conference in October 2019, was welcomed and highly commended by the participants to the forum from various countries. The experts generally agreed that the report paved the way for further discussions on the issue of sovereignty in cyberspace.

## 网络安全

Cybersecurity Maintenance

保障网络安全,促进有序发展

Maintaining Cybersecurity to Promote Orderly Development



2019年10月世界互联网大会网络空间国际规则论坛发布《网络主权:理论与实践》成果文件1.0版

*Launch of the research report Sovereignty in Cyberspace: Theory and Practice (Version 1.0) at the Forum on International Rules for Cyberspace of the sixth World Internet Conference held in October 2019.*

## 2020年11月发布的文件2.0版持续“攻坚”

尽管文件1.0版开局良好,但网络主权还存在诸多有待澄清的问题。为此,2020年2月启动的成果文件2.0版继续进行“攻坚”。2.0版既体现了与1.0版一脉相承的延续性,又进行了多方面的充实和完善。例如,文件新增了“网络主权的体现”和“网络主权的展望”两个部分,实体内容从原来的三个部分扩充到五个实体部分。同时,基于“无论在物理世界还是网络空间,主权都意味着权利和义务的统一”的国际共识,文件增补了有关网络主权的义务维度,提出了各国应切实履行的不侵犯他国、不干涉他国内政、审慎预防义务和保障义务等四项国际法义务。文件2.0版篇幅扩充到约5000字,总体而言体系更加清晰,内容更加充实,观点更为稳妥和国际化。

*Version 2.0 of the report released in November 2020 continued to 'storm fortifications'*

While the Version 1.0 of the report marked a good start, much remained unsettled for sovereignty in cyberspace. Thus, the Version 2.0 of the report initiated in February 2020 continued to 'storm fortifications'. The new version was above all based on the inherent continuation of the previous version. Meanwhile, the report was improved and strengthened in a number of ways. For example, the substantive content of the report

was expanded to five parts, with the inclusion of two new parts (manifestations of national sovereignty in cyberspace and vision on sovereignty in cyberspace). Also, in line with the international consensus that whether in the physical world or cyberspace, sovereignty incorporates both rights and obligations. A new section on the obligations dimension of sovereignty in cyberspace was added to elaborate on the four obligations. Countries should fulfill under international law - non-infringement on other countries, non-interference in other countries' internal affairs, due diligence, and protection. There were also improvements and revisions on the definition of sovereignty in cyberspace, fundamental principles of sovereignty in cyberspace, sovereignty in cyberspace in practice, etc. Overall, not only did the length of the report more than doubled, but the content substantially improved and more internationalized.



2020年11月世界互联网大会网络空间国际规则论坛发布《网络主权:理论与实践》成果文件2.0版

*Launch of the research report Sovereignty in Cyberspace: Theory and Practice (Version 2.0) at the Forum on International Rules for Cyberspace of the World Internet Conference held in November 2020.*

## 2021年9月发布的文件3.0版走向“深化”

作为信息时代的新生事物,网络主权的理论与实践无疑会是一个持续发展、不断丰富。为此,相关专家在继续深入研究并吸纳国际社会各方意见的基础上,于2021年9月推出了成果文件3.0版,致力于从以下几个方面走向“深化”:第一,新增有关“网络主权的国际法属性”的阐述,强调网络主权是具有法律约束力的独立原则和规则;第二,围绕“信息主权”“技术主权”“数据主权”“数字主权”等相关

概念分别进行梳理澄清;第三,对基于网络主权建立更具包容性的国际协作框架进行了较为深入探索;第四,对尊重网络主权和构建网络空间命运共同体的内在关系进行了更为清晰、深入的阐释。此外,谢菲尔德大学尼古拉斯·查哥里亚斯教授等知名专家的参与,也使3.0版的专家团队更为国际化。

### The Version 3.0 of the report released in September 2021 strived to 'enrich itself'

As a new phenomenon in the information age, sovereignty in cyberspace will undoubtedly continue to evolve in both theory and practice. Thus, the experts of the project continued to conduct an in-depth study of the issue and learn from the views and opinions of the international community on this topic and released Version 3.0 of the report in September 2021. The new version managed to 'enrich itself' in the following aspects: 1) the inclusion of a new section on the legal status of sovereignty in cyberspace to echo the recent international debate on this issue, emphasizing that 'as the extension of state sovereignty in cyberspace, sovereignty in cyberspace is also a legally binding principle and rule'. 2) Comparison and clarification of a number of related concepts that have been put forward in recent years, including 'information sovereignty', 'technological sovereignty', 'data sovereignty, and 'digital sovereignty. 3) Deeper discussion of 'building a more inclusive international coordination framework based on sovereignty in cyberspace' from the perspectives of coordinating different perceptions, establishing international rules and systems, and promoting cooperation with concrete actions. 4) Full discussion of the relationship between respecting sovereignty in cyberspace and jointly building a community with a shared future in cyberspace, emphasizing that the latter must be based on the former, and the former needs to be better secured and protected through the latter. Besides, the international group of experts of Version 3.0 also became more internationalized with the inclusion of prestigious experts such as Prof. Yun Zhao of Hong Kong University and Prof. Nicholas Tsagourias of the University of Sheffield.



2021年9月世界互联网大会网络空间国际规则论坛发布  
《网络主权：理论与实践》成果文件3.0版

*Launch of the research report Sovereignty in Cyberspace: Theory and Practice (Version 2.0) at the Forum on International Rules for Cyberspace of the World Internet Conference held in November 2020.*

# 中国电信互联网路由劫持动态防护体系 构筑互联网安全防护墙

China Telecom Internet Rounting Hijacking Dynamic Protection System to Build the Internet Security Protection and Wall

申报机构: 中国电信集团有限公司

Applying Institution: China Telecom

案例涉及的国家 and 地区: 中国、英国、荷兰、德国、俄罗斯、阿联酋等12个国家和地区

Countries and Regions Covered or Involved in the Implementation:

12 countries and regions such as China, United Kingdom, the Netherlands, Germany, Russia, United Arab Emirates



## 通过自主创新在超大型网络上实现互联网路由劫持与泄露动态防护体系的规模应用, 推动全球互联网网络健康稳定发展

Through independent innovation, the large-scale application of the dynamic protection system for Internet routing hijacking and leakage on ultra-large networks is implemented, and the healthy and stable development of the global Internet network is promoted.

随着全球互联网网络持续增长, 为有效解决全球路由重大安全事件日益频繁的问题, 中国电信自主创新并规模应用了路由劫持与泄露动态防护体系, 为全球互联网安全稳定运行起到了积极的促进作用。

In order to effectively solve the increasingly frequent problems of global routing major security incidents due to the continuous growth of the global Internet network, China Telecom independently innovated and applied the dynamic protection system of routing hijacking and leakage on a large scale, which has played a positive role in promoting the safe and stable operation of the global Internet.

### 自主创新, 实现了超大型IP网路由劫持与泄露的高效动态防护能力

作为互联网的“神经系统”, 其BGP协议存在路由可信缺陷, 由此引起的全球路由重大安全事件, 轻则造成业务长距离绕转, 重则造成网络中断服务。为加强互联网基础设施的安全, 中国电信坚持以自主创新为引领, 以领先的技术方案和管理模式, 实现了在超大型网络上互联网路由劫持与泄露动态防护体系的建设和规模应用。中国电信作为全球最大的互联网运营商之一, 全球IP网总节点达到50个, 总带宽超过300T, 该防护体系的应用充分证明了其技术的先进性和有效性。该方案融合路由起源认证(ROA)、互联网路由注册(IRR)、地理位置等多维信息, 构建业界最齐全的全球路由信息库信任源, 目前AS认证对象超7.6万, 路由认证对象超300万;通过创新性研发互联网路由控制器RR+, 实现了路由劫持和泄露的“秒级”发现和告警, 以及路由劫持拦截和泄露封堵的分钟级自动处置;借助于电信网络自身路由自动审计与注册, 实现中国电信互联网路由注册率由不

足50%提升至97%以上;同时, 通过开展互联网路由注册规范管理, 将互联网路由注册、变更、删除等工作纳入日常生产流程中, 确保路由注册数据的完整性、准确性和实时性。

### Independent innovation, realizing the efficient dynamic protection capability of super-large IP network route hijacking and leakage

As the "nervous system" of the Internet, the BGP protocol has routing trustworthiness defects. The resulting global routing major security incidents may cause slight long-distance business detours, and network service interruptions as a worst case scenario. In order to strengthen the security of the Internet infrastructure, China Telecom adheres to the guidance of independent innovation, and realizes the construction and large-scale application of a dynamic protection system for Internet routing hijacking and leakage on super-large networks with leading technical solutions and management models. As one of the world's largest Internet operators, China Telecom has a total of 50 global IP network nodes and a total bandwidth of more than 300T. The application of this protection system fully proves the advancement and effectiveness of its technology. The solution integrates multi-dimensional information such as Routing Origin Authentication (ROA), Internet Routing Registration (IRR), and geographic location to build



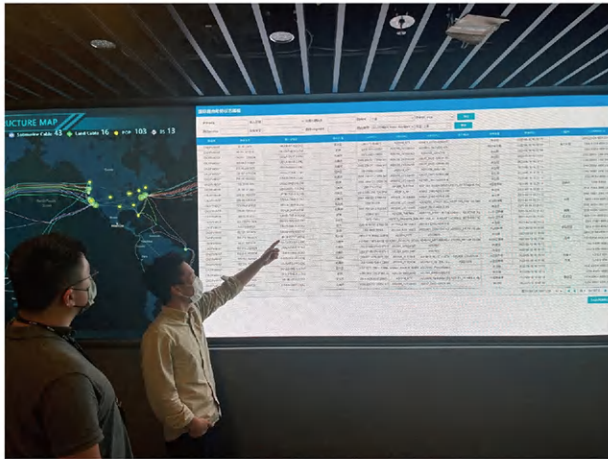
## 网络安全

Cybersecurity Maintenance

保障网络安全, 促进有序发展

Maintaining Cybersecurity to Promote Orderly Development

the industry's most complete and global routing information database trust source. Currently, there are over 76,000 AS authentication objects and over 3 million routing authentication objects. The registration rate of China Telecom's Internet routing has been increased from less than 50% to more than 97% with the help of automatic routing audit and registration of the telecom network itself. It was achieved through the innovative research and development of the Internet routing controller RR+, the "second-level" discovery and alarm of route hijacking and leakage, as well as the minute-level automatic disposal of route hijacking interception and leakage blocking. At the same time, by carrying out standardized management of Internet routing registration, the Internet routing registration, modification, deletion and other works are incorporated into the daily production process to ensure the integrity, accuracy and real-time nature of routing registration data.



向客户介绍中国电信路由劫持监控系统  
Introduce China Telecom routing hijack monitoring system to customers

## 积极合作, 推动全球互联网网络健康稳定发展

为积极地参与全球互联网的安全治理, 2020年12月中国电信全球覆盖超过30个国家的CHINANET、CN2、CTGNET三张国际IP骨干网络全部达到了MANRS (Mutually Agreed Norms for Routing Security, 互联网路由安全规范) 四项行动要求, 并获得MANRS的高度认可。中国电信加入MANRS表明中国电信互联网路由管理已达到国际Tier1运营商水平, 在互联网行业路由安全管理起到示范效应。同时, 中国电信借助不同的国际会议, 向互联网运营商、网络设备提供商、教育与科研机构、互联网企业等代表积极介绍中国电信在互联网路由安全防护体系解决方案, 以及中国电信参与全球互联网路由管理经验, 推动全球互联网路由安全领域的合作与进步。

Actively cooperate to promote the healthy and stable development of the global Internet network

To actively participate in the security governance of the global Internet, in December 2020, China Telecom's three international IP backbone networks, CHINANET, CN2, and CTGNET covering more than 30 countries, all met the four action requirements of MANRS (Mutually Agreed Norms for Routing Security) and was highly recognized by MANRS. China Telecom's participation in MANRS shows that China Telecom's Internet routing management has reached the level of international Tier 1 operators, and has played a demonstration effect in routing security management in the Internet industry. At the same time, China Telecom actively introduced China Telecom's solutions in the Internet routing security protection system as well as China Telecom's experience in participating in global Internet routing management to promote cooperation and progress in the field of global Internet routing security to representatives of Internet operators, network equipment providers, educational and scientific research institutions, Internet companies and other representatives through different international conferences.

## China Telecom Joins MANRS

by PRNewswire

December 10, 2020 10:44 PM (3 min read)



WASHINGTON, Dec. 10, 2020 /PRNewswire/ -- The Mutually Agreed Norms for Routing Security (MANRS) officially accepted China Telecom as a participant in the network operator program, announcing that three of China Telecom's major networks have met its community-led routing security standards.

MANRS officially accepted China Telecom as a participant in the network operator program

By joining MANRS, China Telecom joins a global community of security-minded organizations committed to making the global routing infrastructure more robust and secure. Supported by the Internet Society, the MANRS initiative was created in 2014 by an international group of network operators. It is now adopted by a rapidly growing community of network operators, Internet exchange points, content delivery networks and cloud providers as the way forward to reduce the most common routing threats.

### 中国电信加入MANRS China Telecom joins MANRS



## 聚焦客户, 打造安全稳定的互联网网络环境

中国电信互联网路由安全体系的建设,不但大幅改善了中国电信1.88亿固定宽带用户及3.5亿移动用户的互联网服务感知,同时,作为重要的国际承载网络,确保了超过100家互联的国际电信运营商和OTT运营商的网络路由安全,进而促进全球互联网路由安全能力的共同提升,营造了良好的互联网运营环境。

### Focus on customers and create a safe and stable Internet network environment

The construction of China Telecom's Internet routing security system has not only greatly improved the Internet service perception of China Telecom's 188 million fixed broadband users and 350 million mobile users. At the same time, as an important international bearer network, it ensures the network routing security of more than 100 interconnected international telecom operators and OTT operators, thereby promoting the common improvement of the global Internet routing security capabilities and creating a good Internet operation environment.

## 治理体系

*Global Governance in Cyberspace*

构建互联网治理体系, 促进公平正义

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



2022

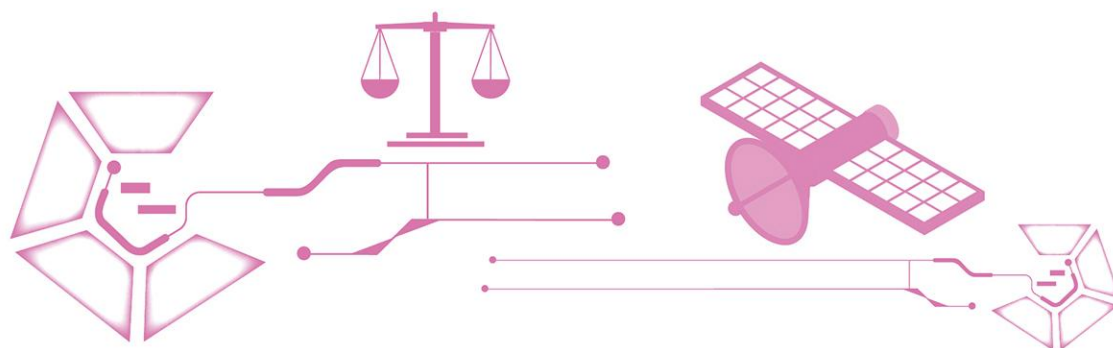
世界互联网大会  
World Internet  
Conference

# 治理体系

## *Global Governance in Cyberspace*

构建互联网治理体系, 促进公平正义

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



## 北斗系统服务全球, 造福人类—携手共建 时空网络命运共同体

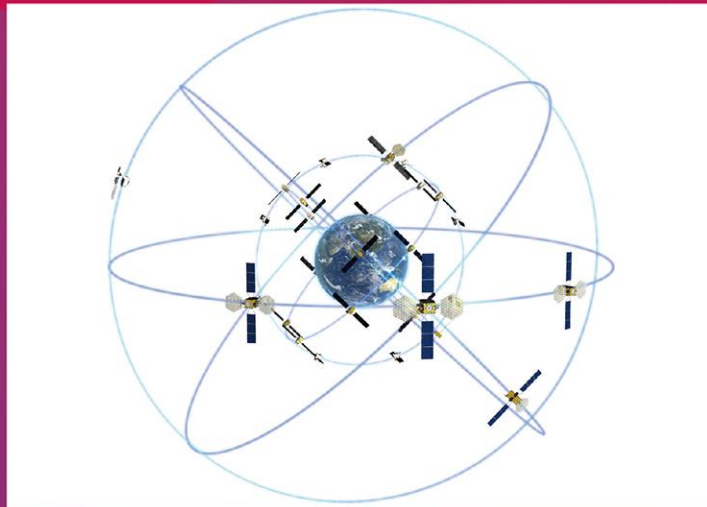
**BeiDou Navigation Satellite System Serves the World and Benefits Mankind, by Joining Hands and Building a Community with a Shared Future in Temporal and Spatial Networks**

**申报机构:** 中国卫星导航系统管理办公室

**Applying Institution:** China Satellite Navigation Office

**案例涉及国家和地区:** 俄罗斯、巴基斯坦、泰国、马来西亚、老挝等12个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**  
12 countries and regions such as Russia, Pakistan, Thailand, Malaysia, Laos



北斗卫星导航系统作为中国提供给世界的公共服务产品, 致力于服务全球、造福人类, 携手共建时空网络命运共同体, 为构建人类命运共同体贡献北斗力量。

As public service goods contributed by China to the world, the BeiDou Navigation Satellite System (hereinafter referred to as "BDS") is dedicated to serving the world and benefiting mankind, by joining hands and building a community with a shared future in temporal and spatial networks, and contributing BDS efforts for building a community with a shared future for mankind.

北斗系统是中国着眼于国家安全和经济社会发展需要, 自主建设运行的全球卫星导航系统, 是为全球用户提供全天候、全天时、高精度定位、导航和授时服务的国家重要空间基础设施。近年来, 中国持续开展卫星导航合作, 弥合数字鸿沟, 深化互联互通, 促进空间治理, 助力全球数字经济发展。

BDS has been independently constructed and operated by China with an eye on the needs of the country's national security as well as economic and social development. As a space infrastructure of national significance, BDS provides all-time, all-weather and high-accuracy positioning, navigation and timing services to global users. Recent years have witnessed China's unremitting efforts in carrying out satellite navigation cooperation, bridging the digital divide, deepening interconnection, facilitating space governance, and boosting global development of the digital economy.



迪拜世博会中国馆北斗展  
BDS Exhibition, China Pavilion,  
World Expo 2020 Dubai

## 稳定运行提供优质服务

北斗系统通过构建“运行维护、监测评估、精稳提升、平稳过渡”为一体的全流程、多手段精稳运行体系, 为用户提供连续、稳定、可靠服务; 持续提升多样化特色服务能力, 打造国际搜救、短报文通信、星基增强、地基增强等北斗特色服务平台, 为用户提供高效便捷服务。

### Operate stably to provide quality services

BDS builds up a precision and stability maintenance system which covers the whole operational process including "operation and maintenance, monitoring and assessment, precision and stability improvement, smooth transition" with various approaches. China continues to enhance diversified services capacities with Chinese characteristics, sets up all-round services platform including international search and rescue, short message communications, space based augmentation, ground based augmentation, and other featured BDS services. This helps to provide high-efficiency and convenient services to users.

## 推进北斗规模应用发展

2021年, 中国国家主席习近平向首届北斗规模应用国际峰会致贺信, 指出, 当前, 全球数字化发展日益加快, 时空信息、定位导航服务成为重要的新型基础设施。北斗系统在全球一半以上国家和地区推广使用, 北斗规模应用进入市场化、产业化、国际化发展的关键阶段。

### Promote the development of BDS applications

Chinese President Xi Jinping sent a congratulatory letter to the First International Summit on BDS Applications held in 2021. In his letter, Xi noted that the rapid development of global digitalization, spatiotemporal information as well as positioning and navigation services have become important new infrastructures. The BDS has been put into use in more than half of the countries and regions in the world. The large-scale application of BDS has entered a critical stage of marketization, industrialization and internationalization.

## 治理体系

Global Governance in Cyberspace

### 构建互联网治理体系, 促进公平正义

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



首届北斗规模应用国际峰会

*The First International Summit on BDS Applications*

目前, 北斗产业快速发展, 从以产品推动向特色服务牵引转型, 高效赋能各行各业提质升级, 正在成为数字经济高质量发展的新引擎。

At present, BDS application industries are developing rapidly by accelerating the transformation from product-driven to featured services driven system empowering all industries to improve their quality and to upgrade efficiently, and are turning into a new engine for high-quality development of digital economy.

## 广泛开展国际合作交流

在中俄总理定期会晤机制框架下, 设立中俄卫星导航重大战略合作项目委员会, 签署中俄卫星导航政府间合作协定、中俄卫星导航领域五年合作路线图等重要成果文件, 实施联合建站、测试评估、精准农业、跨境运输等合作项目。

### Carry out international cooperation and exchanges

Under the mechanism of regular meetings between Chinese and Russian prime ministers, the China-Russia Project Committee on Major Strategic Cooperation in Satellite Navigation has been established. Significant documents have been signed, including the Agreement between Chinese and Russian government on Satellite Navigation Cooperation, and the Five-Year Roadmap for Satellite Navigation Cooperation. Landmark cooperation projects such as joint construction of ground stations, GNSS open service performance test and assessment, precision agriculture, and cross-border transportation have been implemented.

在中阿合作论坛框架下, 设立中阿北斗合作论坛并连续举办三届, 发布中阿卫星导航领域合作行动计划, 建成中阿北斗/全球卫星导航系统中心。

Under the framework of the China-Arab States Cooperation Forum, the China-Arab States BDS Cooperation Forum has been successfully held for three sessions. The China-Arab States action plan for satellite navigation cooperation has been released and the China-Arab States BDS/GNSS Center has been launched.

成立中国—东盟卫星导航国际合作联盟, 举办多届中国—东盟北斗应用与产业发展合作论坛, 持续开展“北斗东盟行”活动, 建成中国—东盟北斗/全球卫星导航系统中心。

The China-ASEAN Satellite Navigation International Cooperation Alliance has been established, which has successfully held several sessions of the China-ASEAN BDS Application and Industry Development Cooperation Forum, organized the “BDS ASEAN Tour”, and set up the China-ASEAN BDS/GNSS Center.



中阿北斗合作论坛

*The China-Arab States BDS Cooperation Forum*



中非北斗合作论坛

*The China-Africa BDS Cooperation Forum*

在中非合作论坛框架下设立中非北斗合作论坛, 发布《北斗卫星导航系统在非十大应用场景》和《促进中非卫星导航领域合作构想》。

Under the framework of the Forum on China-Africa Cooperation, the China-Africa BDS Cooperation Forum has been held, and the 10 Application Scenarios of BDS in Africa and the Vision for Promoting China-Africa Cooperation on BDS have been released.

## 促进全球卫星导航事业发展

北斗系统加速进入民航、海事、移动通信等国际组织标准, 融入国际工业体系。北斗专家积极参加联合国全球卫星导航系统委员会 (ICG) 活动, 举办两届ICG大会, 担任多个工作组主席。

### Promote the development of global satellite navigation

BDS is accelerating the ratification by standards of international organizations in the fields of civil aviation, maritime and mobile communications, and its integration into international industrial systems. BDS Experts actively participates in a series of events held by the International Committee on Global Navigation Satellite Systems (ICG), and has successfully held two sessions of ICG Meetings. Chinese Experts are serving as chairmen of several working groups.



中国主办联合国全球卫星导航系统国际委员会第十三届大会  
ICG-13 Meeting hosted by China

## 加强卫星导航人才培养

创立卫星导航国际研究生项目, 近20国百余名留学生在 中国获得专业硕士和博士学位, 40余国800余人参加了短期培训。这些学员已成为各国卫星导航领域的领头雁。

## Strengthen the training of satellite navigation talents

In order to strengthen training on satellite navigation specialists, the satellite navigation international graduate program has been established. More than 100 overseas students from nearly 20 countries have obtained master's and doctoral degrees in satellite navigation in China, and over 800 people from more than 40 countries have participated in short-term training courses. At the moment, these trainees have become the leading figures of their own countries in the field of satellite navigation.



北斗技术与应用国际培训班  
International Training Course on BDS/GNSS Technology and Applications

## 推进发展成果惠及全球

北斗系统坚持开放融合、协调合作、兼容互补、成果共享, 愿同各方一道, 推动北斗系统建设、推进北斗产业发展, 共享北斗系统成果, 促进全球卫星导航事业进步, 让北斗系统更好服务全球、造福人类。

### Share the development achievements to benefit the world

BDS is committed to openness and integration, coordination and cooperation, compatibility and complementarity, and sharing. It is willing to work with all sides to promote the building of the BDS and the development of the BDS industry, to share the achievements of the BDS with all sides, to promote the progress of the global satellite navigation industry, and make the BDS better serve the world and benefit humankind.



## 推进IPv6规模部署向纯IPv6发展联合倡议

### Joint Initiative to Promote the Large-scale Development of IPv6 to the Development of IPv6-only

---

**申报机构:** 下一代互联网工程中心

**Applying Institution:** China Future Internet Engineering Center (CFIEC)

**相关参与机构:**

全球IPv6论坛、中国电信股份有限公司北京研究院、中国信息通信研究院、阿里巴巴集团、澳门科技大学

**Participating Parties:**

IPv6 Forum, China Telecom Research Institute, China Academy of Information and Communications Technology (CAICT), Alibaba Group, Macau University of Science and Technology (M.U.S.T)

**案例涉及的国家 and 地区:** 中国、美国以及欧盟各成员国

**Countries and Regions Covered or Involved in the Implementation:**

China, United States, and EU countries

由温顿·瑟夫(Vint Cerf)、邬贺铨、拉提夫·拉蒂德(Latif Ladid)、刘东四位国际专家共同发出的《推进IPv6规模部署向纯IPv6发展联合倡议》,明确了纯IPv6部署的重要性,从加大IPv6技术融合创新力度、加速纯IPv6实践应用、加强IPv6产业生态建设等方面向全球企业和社会各界发出倡议,呼吁所有产业人士拥抱并参与到纯IPv6最佳实践的贡献中来,共同开启纯IPv6规模部署新时代。该倡议汇聚全球专家和组织机构就IPv6技术成果和升级方向形成共识,是IPv6产业发展和技术演进中的一个里程碑。

In order to accelerate the global digitization process and promote the large-scale deployment of IPv6, an IPv6-Only joint statement was initiated by Vint Cerf, Latif Ladid, Wu Hequan and Liu Dong. In this statement, the importance of IPv6-Only deployment was clarified and initiatives were issued to global enterprises and all sectors of the society in terms of increasing the integration and innovation of IPv6 technology. It aims to accelerate the practical application of IPv6-Only, strengthen the ecological construction of IPv6 industry, and call on all industry professionals and practitioners to embrace and participate in the promotion of IPv6-Only. The contribution of best practices will jointly score a new chapter in the large scale deployment of IPv6-Only. The initiative brings together global experts and organizations to form a consensus on IPv6 technical achievements and upgrade directions which is a milestone in IPv6 industry development and network technology evolution.

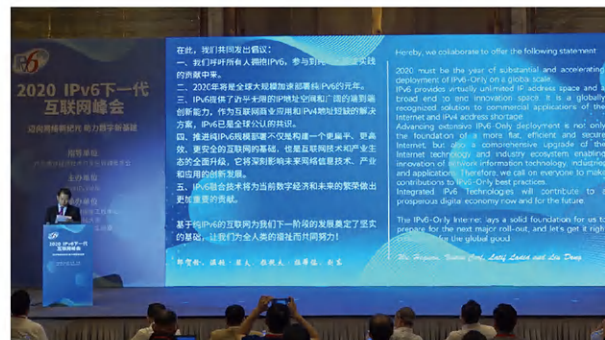
## 《推进IPv6规模部署向纯IPv6发展联合倡议》 正式发布

2020年7月30日,为加速全球数字化进程,推动IPv6规模部署,由全球IPv6论坛发起,下一代互联网工程中心组织,互联网之父温顿·瑟夫(Vint Cerf)、中国工程院院士邬贺铨、全球IPv6论坛主席拉提夫·拉蒂德(Latif Ladid)、下一代互联网工程中心主任刘东四位国际专家共同发出《推进IPv6规模部署向纯IPv6发展联合倡议》,在中国广州举办的“2020全球IPv6下一代互联网峰会”上正式发布。

### "Joint Statement on Promoting Large-scale Deployment of IPv6 to IPv6-Only" Officially Released

On July 30, 2020, a joint statement that aimed to accelerate the global digitalization process and promote the large-scale deployment of IPv6 was initiated by the Global IPv6 Forum organized by the China Future Internet Engineering Center, Vint Cerf (who is the father of the Internet), Wu Hequan (academician of the Chinese Academy of Engineering), Latif Ladid (President of the IPv6 Forum), and Liu Dong

(Director of China Future Internet Engineering Center). They issued the "Joint Initiative on Promoting the Large-scale Deployment of IPv6 to IPv6-Only Development" which was held in Guangzhou, China. It was officially released at the Global IPv6 Summit.



### 《推进IPv6规模部署向纯IPv6发展联合倡议》在全球 IPv6峰会上发布

The IPv6-Only Joint Statement was Officially Released  
at the "2020 Global IPv6 Summit"

## 治理体系

Global Governance in Cyberspace

### 构建互联网治理体系, 促进公平正义

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

《推进IPv6规模部署向纯IPv6发展联合倡议》指出, IPv6提供了近乎无限的IP地址空间和广阔的端到端创新能力, 作为互联网商业应用和IPv4地址短缺的解决方案, IPv6已是全球公认共识。推进纯IPv6规模部署不仅是构建一个更扁平、更高效、更安全的互联网的基础, 也是互联网技术和产业生态的全面升级, 它将深刻影响未来网络信息技术、产业和应用的创新发展, IPv6融合技术将为当前数字经济和未来的繁荣做出更加重要的贡献。同时倡议还将2020年作为全球大规模加速部署纯IPv6的元年; 呼吁所有产业人士拥抱并参与到纯IPv6最佳实践的贡献中来。

The statement points out that IPv6 provides nearly unlimited IP address space and broad end-to-end innovation capabilities. As a solution to Internet commercial applications and IPv4 address shortages, IPv6 has become a globally recognized consensus. Promoting the large-scale deployment of IPv6-Only is not only the foundation for building a flatter, more efficient, and more secure Internet but also a comprehensive upgrade of Internet technology and industrial ecology which will profoundly impact the future innovation and development of network information technology, industries, and applications. Technology will make an even more important contribution to the current digital economy and future prosperity. At the same time, the initiative also regards 2020 as the first year for the global large-scale accelerated deployment of IPv6-Only and calls on all industry practitioners to embrace and participate in the contribution of IPv6-Only best practices.

## 凝聚全球产业共识 构建基于IPv6的网络空间命运共同体

《推进IPv6规模部署向纯IPv6发展联合倡议》首次汇聚全球专家和组织机构就IPv6技术成果和升级方向形成共识, 是IPv6产业发展和技术演进过程中的一个里程碑。作为一个基础、开放、包容、创新的技术体系, IPv6规模部署拓宽了互联网体系边界。产业内一致认为, 未来纯IPv6部署将是网络基础设施发展以及产业生态构建的最终方向, 将是互联网的第一次、也是未来数十年的最后一次重大升级。下一步,

业内将从技术研究、融合应用、标准制定、生态构建等多方面加大力度, 携手构建基于IPv6的网络空间命运共同体, 加快全球基础设施建设促进互联互通, 推动经济社会发展和全球数字化转型。

### Consolidate global industry consensus and build a cyberspace with a shared future based on IPv6

It is the first time to gather domestic and foreign experts and organizations to form a consensus on IPv6 technical achievements and upgrade directions which is a milestone in the process of IPv6 industry development and network technology evolution. As a base, open, inclusive, and innovative technology system, the large-scale deployment of IPv6 broadens and expands the boundaries of the Internet. It is unanimous in the industry that the future of IPv6-Only deployment will be the final direction of network infrastructure development and industrial ecological deployment. It will be the first and last major upgrade of the Internet in the next few decades. In the next step, the industry will make efforts in technical research, integrated applications, standard formulation, ecological construction, and alike, to jointly build a cyberspace of shared future based on IPv6. It will build and accelerate global infrastructure construction to promote interconnection, economic and social growth, and global development.

## 加速IPv6技术融合应用 开启纯IPv6应用部署新征程

当今, 千行百业面临数字化转型新机遇, 这就要求互联网必须具备向全球更多用户提供更加可靠的服务能力, 而IPv6作为新基建的“基石”顺势而起。IPv6将移动性、安全性、差异化服务作为内生机制嵌入网络, 使网络能力实现跨越式变革, 成为传统产业数字化转型和未来产业创新发展的坚实基础和重要引擎。

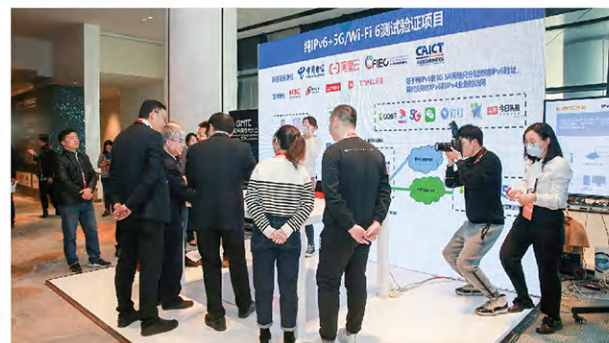
Accelerate the integration and application of IPv6 technology and propose to start a new journey of IPv6-Only application deployment

Nowadays, thousands of industries are facing new opportunities for digital transformation which requires the Internet to have the ability to provide more reliable services to more users on a global scale. And as the "cornerstone" of new infrastructure, IPv6 leads the trend. IPv6 embeds mobility, security, and differentiated services into the network as endogenous mechanisms. This enables a leap-frog transformation of network capabilities, becoming a solid foundation, and an important engine for the digital transformation from traditional industries to future industrial innovation and development.

随着倡议的发布,越来越多的企业、研究机构参与到纯IPv6的实践中。包括中国教育和科研计算机网CERNET网络中心联合中国高校建成全球最大规模的纯IPv6主干网CERNET2, 清华大学等高校联合相关企业协同开展下一代互联网关键技术创新、产业化和标准化, 推动纯IPv6部署和应用向纵深发展; 中国电信、阿里巴巴、中国信息通信研究院和下一代互联网工程中心联合建设的基于纯IPv6技术的5G SA组网成果“5G SA + IPv6 Only”项目, 为全球的多场景、多域的纯IPv6网络商用设立了标杆, 助力互联网业务和运营商网络全面从双栈向纯IPv6的演进; 亚马逊AWS允许用户在双栈环境中创建纯IPv6子网, 当用户负载需要消耗大量IP地址时这项功能变得非常有用; 脸书等企业的内部网络也已使用纯IPv6进行搭建, 降低成本的同时布局未来。

With the release of the initiative, large number of enterprises and research institutions have participated in the practice of IPv6-Only. These include the Chinese Education and Research Computer Network (CERNET), Network Center and the national universities who build the world's largest IPv6-Only backbone network CERNET2. Tsinghua University and other universities as well as related enterprises cooperate to carry out the next generation Internet key technology innovation, industrialization and standardization, to promote IPv6-Only deployment and Application development in depth. The 5G SA networking achievement "5G SA + IPv6 Only" project based on IPv6-Only technology was also jointly constructed by China Telecom, Alibaba Group, China Academy of Information and Communications Technology and CFIEC. This project sets a benchmark for the commercial use of multi-scenario and multi-domain IPv6-Only networks in the world and helps Internet services providers and operator networks to fully evolve

from dual-stack to IPv6-Only. Amazon AWS allows users to create IPv6-Only subnets in a dual-stack environment which becomes very useful when user load needs to consume a large number of IP addresses. Internal networks of companies such as Metaverse has also been built using IPv6-Only, reducing costs and laying a solid foundation for the future development.



“5G SA + IPv6 Only”纯IPv6部署实践展示

### The Exhibition of "5G SA + IPv6 Only" Project

《推进IPv6规模部署向纯IPv6发展联合倡议》的发布, 明确了纯IPv6部署成果的重要性, 从加大IPv6技术融合创新力度、加速纯IPv6实践应用、加强IPv6产业生态建设等方面向全球企业和社会各界发出倡议, 共同开启纯IPv6规模部署新时代。全球越来越多的组织机构积极制定纯IPv6部署的行业标准, 积极开展IPv6创新应用, 积极申请IPv6 Ready支持度测试和国际认证, 纯IPv6发展开始驶入“快车道”。

The release of the "Joint Initiative in Promoting Large-scale Deployment of IPv6 to the Development of IPv6-Only" specifies the importance of the results of IPv6-Only deployment. Together with all sectors of the economy and the society at large, we will unveil a new chapter of IPv6-Only large-scale deployment. large number of organizations around the world take proactive part in formulating industry standards for IPv6-Only deployment, actively developing IPv6 innovative applications, and effectively applying for IPv6 Ready support tests and international certifications. IPv6-Only development has entered the "fast lane".

## 治理体系

Global Governance in Cyberspace

构建互联网治理体系, 促进公平正义

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

# 杭州互联网法院跨境数字贸易司法解纷与治理平台

## Cross-border Digital Trade Judicial Dispute Resolution and Governance Platform of Hangzhou Internet Court

申报机构: 杭州互联网法院

**Applying Institution:** Hangzhou Internet Court

案例涉及的国家/地区: 美国、意大利、日本、韩国等8个国家和地区

**Countries and Regions Covered or Involved in the Implementation:**  
8 countries and regions such as United States, Italy, Japan, South Korea



## 技术赋能创新司法模式, 实现了跨境数字贸易纠纷“一站式”多元化在线解决。

### Technology-empowered Innovative Judicial Model for “One-stop” Diversified Online Resolution of Cross-border Digital Trade Disputes

随着世界数字经济的蓬勃发展, 跨境数字贸易纠纷与日俱增。杭州互联网法院以跨境数字贸易司法解纷与治理平台为载体, 以技术为通用语, 深入跨境贸易纠纷解决规则、体制和机制探索, 全面协调各市场主体在数字贸易规则构建发展的分歧解决途径, 为全球互联网法治发展提供中国智慧和方案。

There is a growing number of cross-border digital trade disputes with the booming of the digital economy worldwide. Based on the Cross-border Digital Trade Judicial Dispute Resolution and Governance Platform, Hangzhou Internet Court has explored the rules, institutions, and mechanisms for cross-border trade dispute resolution, providing Chinese wisdom and solutions to the global Internet rule of law.

## 着力流程再造, 实现跨境数字贸易纠纷“高效解”

### Highlighting Process Re-engineering for “Efficient Resolution” of Cross-border Digital Trade Dispute Resolution

跨境数字贸易司法解纷与治理平台着力实现解纷流程再造与制度重塑, 为当事人提供了高效率、低成本的纠纷化解决方案。

The Cross-border Digital Trade Judicial Dispute Resolution and Governance Platform strives to re-engineer the dispute resolution process and reshape the system, and provide parties with high-efficient and low-cost dispute resolution solutions.



### 异步审理跨越时空界限

### Asynchronous Trial Beyond Space-time Barriers

时空距离和语言障碍是跨贸纠纷在线审理必须直面的问题。异步审理克服涉外诉讼的地域、时域障碍, 让庭审不再拘泥于物理空间的限制, 支持当事人随时随地进行线上答辩及陈述, 系统交互完成庭审内容整理与分析, 让庭审在“异步时空”进行。同时, 针对面对面沟通时三方语言障碍问题, 我们实现了庭审语音识别和实时中英文双向翻译功能, 有效打破语言壁垒, 增强庭审互信。

## 治理体系

Global Governance in Cyberspace

### 构建互联网治理体系，促进公平正义

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

The asynchronous trial, beyond the space-time barriers of foreign-related litigations, breaks through the physical space restrictions of court hearings and supports parties to make online statements anytime and anywhere. For effective language communication in courts, voice recognition and real-time CE and EC interpretations are provided, which has broken language barriers and enhanced mutual trust in courts.



庭审语音识别及双向翻译  
注释(图中人员信息):

余红明(男), 杭州互联网法院信息化专员  
吴曼晖(女), 共道网络科技有限公司运营专家

Voice Recognition and Real-time CE and EC Interpretation

## 发挥技术赋能, 实现跨境数字贸易纠纷“公正解”

跨境数字贸易司法解纷与治理平台基于数字法治系统总体架构, 以司法业务中台为基础, 深度融合信息技术, 内嵌5G智慧视频庭审、司法区块链、境外电子送达、智能证据比对系统、智能法官助理等应用模块, 以技术理性彰显司法公信。

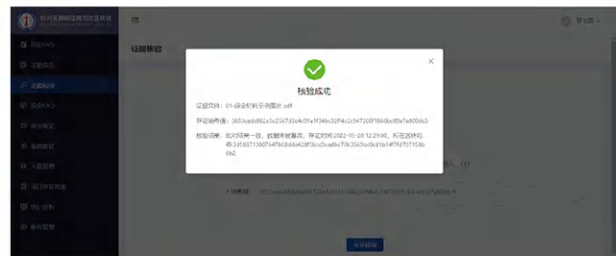
### Applying Technology Empowerment for the “Just Resolution” of Cross-border Digital Trade Disputes

The Cross-border Digital Trade Judicial Dispute Resolution and Governance Platform, under the overall framework of the digital rule of law system and based on the judicial business central desk, is deeply integrated with information technology, 5G intelligent video court hearing, judicial blockchain, overseas electronic delivery, intelligent

judge assistant and other application modules to demonstrate judicial credibility with technical rationality.

同时, 平台依托智能化审理优势, 积极输出跨境数字贸易纠纷裁判规则及司法保障意见, 平等保护不同国家、地区各类市场主体合法权益, 营造高效、公开、可预期的国际营商环境。并嵌入智能推荐算法, 根据汇编实质化运作的典型案例, 综合评估后提供给法官和当事人参考, 彰显司法裁判的规则引领与价值导向功能。

Meanwhile, on the advantages of intelligent trial, the Platform exports the rules of adjudication of cross-border digital trade disputes and judicial protection opinions to protect the legitimate rights and interests of market subjects across countries and regions on an equal footing, and create an efficient, open and predictable environment of the international business rule of law.



司法区块链智能核验

Judicial Blockchain Intelligent Verification



典型案例汇编

A Collection of Typical Cases

## 深化协同治理, 实现跨境数字贸易纠纷“多元解”

杭州互联网法院着力发挥在数字经济发展示范区建设中的服务和保障作用, 健全完善诉讼、仲裁、调解有机衔接的国际商事多元纠纷化解机制。

### Deepening Collaborative Governance for “Multiple Solutions” to Cross-border Digital Trade Disputes

The Hangzhou Internet Court has endeavored to provide service and guarantee to the demonstration zone of digital economic development and strengthen a diversified dispute resolution mechanism for international commercial affairs that organically connects litigation, arbitration, and mediation.

跨境数字贸易司法解纷与治理平台引入了商事调解组织、行业协会等社会解纷力量, 法院将案件一键分配至APEC跨境商事在线解纷平台, 由专业涉外调解员提供“订单式”调解, 过程中可选择不同语种的翻译及速记服务, 有效提供更为广阔、社会化程度更高的调解法律服务。同时, 我们强化平台内纠纷化解供给能力, 建立涉外律师、调解人员、翻译人员等专业人才库, 在充分尊重当事人调解意愿的基础上, 促使更多的商事纠纷以高效、便捷、经济的非诉方式妥善化解。

The Cross-border Digital Trade Judicial Dispute Resolution and Governance Platform also bring in commercial mediation organizations, industrial associations, and other public dispute resolution institutions. So that the Court assigns cases to the APEC Cross-border Commercial Online Dispute Resolution Platform with one click, and the professional foreign affairs-related mediators provide “order-based” mediation for broader and more socially acceptable mediation of legal services.



“一站式”多元化争议解决服务

*Diversified Dispute Resolution Services*



# 中国国际大数据产业博览会

## China International Big Data Industry Expo

**申报机构:** 中国国际大数据产业博览会执委会

### Applying Institution:

The Executive Committee of China International Big Data Industry Expo

### 案例涉及的国家 and 地区:

美国、英国、意大利、韩国、新加坡、印度、柬埔寨、日本、德国等20个国家和地区

### Countries and Regions Covered or Involved in the Implementation:

20 countries and regions such as United States, United Kingdom, Italy, Southf Korea, Singapore, India, Cambodia, Japan, Germany



自2015年举办以来,中国国际大数据产业博览会(简称数博会)始终秉承“全球视野、国家高度、产业视角、企业立场”办会理念,充分展现了中国积极构建互联网治理体系、促进公平正义的责任担当。

Since 2015, China International Big Data Industry Expo has always adhered to the principle of "global vision, national height, industrial perspective, and corporate position". It fully demonstrates China's responsibility to actively build an Internet governance system and promote fairness and justice.

作为国家级大数据博览会,中国国家主席习近平两次致数博会贺信,中国国务院总理李克强向大会致贺信并亲临2016数博会,倡导世界各国加强交流互鉴,共同探寻新的增长动能和发展路径,推动大数据产业公平发展,彰显了中国与世界各国共享数字新机遇、共创数字合作新局面的真诚愿望。

As a national expo, Chinese President Xi Jinping sent a congratulatory message to the expo twice, and Chinese Premier Li Keqiang sent a congratulatory letter and visited the 2016 China International Big Data Industry Expo in person. They advocated that countries around the world strengthen exchanges and mutual learning, jointly explore new growth drivers and development paths, and promote the fair development of the big data industry. This shows China's sincere aspiration to share new digital opportunities and create a new situation of digital cooperation in the world.

作为全球首个大数据主题博览会,数博会一直致力于构建全球大数据统一规范、符合国际通用规则的多语种学术话语体系和术语标准体系。历届数博会先后发布了《数典》《大数据百科术语辞典》《大数据蓝皮书》等公益成果。其中,《数典》作为全球首部多语种、全面系统研究大数据标准术语的多语种专业工具书,开创性地提供了汉语、阿拉伯语、英语、法语、西班牙语等11大语种,覆盖全球6大洲的200余个国家和地区的统一规范国际术语标准体系;《大数据百科

术语辞典》是全球首套系统研究大数据术语的多语种智能化专业辞典,填补了世界大数据标准术语工具书的空白。同时,《块数据》《数权法》《主权区块链》“数字文明三部曲”英法德文版首发仪式在2022数博会举行。海内外出版方对外发布了《块数据1.0-3.0》英文版,《数权法3.0》法文版、德文版,《主权区块链2.0》中文简体版、中文繁体版,《主权区块链2.0》英文版,《主权区块链1.0》《主权区块链2.0》法文版、德文版,为理解数字文明时代奠定理论、价值和法理基础,为窥探数字文明图景提供了一个新视角,对提升中国大数据的国际话语权和规则制定权,加快大数据知识国际传播和普及应用,具有现实而深远的意义。

As the world's first big data expo, China International Big Data Industry Expo has been committed to building a multilingual academic discourse system and terminology standard system that is unified and standardized for global big data and conforms to international common rules. The previous expos have successively released such public welfare achievements as Digital Dictionary, Big Data Encyclopedia Glossary, Big Data Blue Book, etc. Among them, as the world's first multilingual professional reference book for comprehensive and systematic research on big data standard terms, Digital Dictionary has creatively provided a unified and standardized international terminology system in 11 languages, including Chinese, Arabic, English, French and Spanish, covering more than 200 countries and regions on 6 continents. Big Data Encyclopedia Glossary is the world's First multilingual intelligent professional dictionary that systematically studies big data terms and filling the gap in the world's big data standard term reference book. In addition, the launching ceremony of the English, French and German versions of Block Data, Digital Rights Law, Sovereign Blockchain were held at the 2022 China International Big Data Industry Expo. Publishers at home and abroad have released the English version of Block Data 1.0-3.0, the French and German versions of Digital Rights Law 3.0, the simplified and traditional Chinese, English, French and German versions of Sovereign Blockchain 1.0-2.0, laying a theoretical, value and legal foundation for understanding the era of digital civilization. They are providing a new perspective for exploring the digital civilization. This will enhance China's international voice and rule-making capacity in big data, and accelerate the international dissemination, popularization, and application of big data knowledge which has realistic and far-reaching significance.

## 治理体系

Global Governance in Cyberspace

### 构建互联网治理体系，促进公平正义

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

随着全球影响力提升，数博会得到了联合国秘书长安东尼奥·古特雷斯、国际电信联盟秘书长赵厚麟、英国约克公爵安德鲁王子、诺贝尔经济学奖获得者保罗·罗默等联合国及知名国际组织机构、外政府机构馆员、驻华使节、世界知名互联网企业家及学者的重点关注。华尔街日报、美联社、路透社、法新社等覆盖11个语种、200多个国家和地区的海外媒体，全方位、多形式、多视角对数博会盛况进行了报道。数博会逐渐成为引领全球大数据行业理论创新、规则创新、标准创新、技术创新、模式创新的国际权威平台，开启了全球大数据时代人类命运共同体的探寻之旅。

With the increase of global influence, the expo has attracted the attention of Antonio Guterres, Secretary General of the United Nations, Zhao Houlin, Secretary General of the International Telecommunication Union, Prince Andrew, and Paul Romer, Nobel Laureate in economics, and other well-known international organizations, librarians of foreign government agencies and envoys in China, world-renowned Internet entrepreneurs, and other scholars. The Wall Street Journal, The Associated Press, Reuters, Agence France Presse and other overseas media covering 11 languages and more than 200 countries and regions reported on the grand occasion of the expo in an all-around, multi-form, and multi-perspective. China International Big Data Industry Expo has gradually become an international authoritative platform leading the global big data industry in theoretical, rule, standard, technology, and model innovations. It has opened the exploration journey of a community of shared future for mankind in the global big data era.



2019数博会：诺贝尔经济学奖获得者、纽约大学经济学教授  
保罗·罗默出席开幕式并发表演讲

2019: Paul Romer, Nobel Laureate in Economics and professor of Economics at New York University, delivered a speech at the opening ceremony



2021数博会：时任上海合作组织秘书长弗拉基米尔·诺罗夫  
出席开幕式并致辞

2021: Vladimir Norov, SECRETARY-GENERAL of the Shanghai Cooperation Organization, addressed the opening ceremony

