ABB：携手中国，迈入“新阶段”

ABB: Partnering with China to a “new stage”

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自1907年提供第一台蒸汽锅炉开始，ABB与中国已携手走过了一个多世纪。回首百年，特别是改革开放以来，作为电力和自动化领域的龙头企业，ABB始终积极参与市场与行业建设，也受益于中国经济和社会的发展。ABB于1979年在京设立永久办事处，1992年在厦门成立在华首家合资企业，1995年在京成立ABB（中国）投资有限公司，2005年在北京和上海设立全球性研究中心，2010年提出“在中国、为中国、为世界”战略。目前，ABB在中国开展研发、制造、销售和工程服务等全方位的业务活动，拥有1.9万名员工、39家本地企业和遍布126个城市的销售与服务网络。中国是集团全球第二大市场。

最初，ABB将欧洲先进的产品、技术和丰富的管理经验带来中国，并随着市场需求不断扩大逐步实现全价值链本土化。如今，我们与合作伙伴携手技术发展与创新，开发了更多面向未来、适用于中国乃至全球的新技术和产品。我们认为这是政府、企业、学术、社会各方齐心协力，谋求共赢的可持续发展模式。

Since providing China with the first steam boiler in 1907, ABB has gone hand in hand with China for more than a century. Looking back over the century, and especially the period after reform and opening up, ABB, as the leading enterprise in power and automation, has always been actively involved in the construction of market and industry, and also benefited from China's economic and social development. ABB set up a permanent office in Beijing in 1979, launched its first joint venture in Xiamen in 1992, founded ABB China Limited in Beijing in 1995, established global research centres in Beijing and Shanghai in 2005, and introduced “In China, for China and the world” strategy in 2010. At present, ABB carries out a full range of business activities in China, including research and development, manufacturing, sales and service, with 19,000 employees, 39 local businesses and sales and service network over 126 cities. China is ABB's second largest market in the world.

Initially, ABB brings advanced products, technology and rich experiences from Europe to China, and with the expanding market demand, the whole value chain is gradually localised. Today, we are working with our partners on technical development and innovation, and have developed more future-oriented new technologies and products for China and the world. We see this as a sustainable development model seeking win-win with concerted efforts from the government, business, academia and all walks of the community.

Experience of a Century to Fuel up China's Take-off

ABB is a leader in the power and automation industries, and is the inventor of steam turbines, turbochargers, engine motor drive system, adjustable speed motor inverter, electric industrial robots, gas insulated switches, gearless electric motor transmission, electric propulsion systems and high-voltage DC power transmission and many other power and automation technologies and products.

The high voltage DC power transmission that ABB pioneered 60 years ago can realize efficient, cost-effective and eco-friendly power transmission of high capacity, long distance and low loss, which is particularly applicable in large countries such as China and India. Currently, more than half of the world's high-voltage DC transmission projects are led by ABB. In China, ABB has participated in 20 of the 28 high-voltage DC transmission projects.

In the field of industrial robotics, ABB realized the localisation of the whole value chain in China, from development, production, marketing, engineering, system integration to support. In 1995, it was the first in use robots in general assembly workstations of automobile production. In 2002, ABB built the

百年积累，助力中国腾飞

ABB引领电力和工业行业发展，是蒸汽轮机、涡轮增压器、机车电机传动系统、可调速电机变频装置、全电动工业机器人、气体绝缘开关、无齿轮电机传动、船舶电力推进系统和高压直流输电等众多电力和自动化技术与产品的发明者。

ABB在60年前开创的高压直流输电可以实现高效、经济、环保的大容量、长距离、低损耗输电，在中国、印度等幅员辽阔的国家尤为适用。目前，全球一半以上的高压直流输电项目由ABB负责建造。在中国，ABB参与了28个高压直流项目中20条线路的建设。

在工业机器人领域，ABB在中国实现了从研发、生产、销售、工程、系统集成到客服全价值链本土化，1995年率先在汽车生产总拼工位上使用机器人，2002年成功打造中国第一条机器人自动化冲压线，2013年成为国内第一家提供水性胶系统解决方案的机器人供应商。ABB还是目前唯一完整拥有冲压、焊接、涂装和总装这汽车制造四大工艺技术的机器人厂家，产品广泛用于上海通用、上海大众、广州本田、东风标致、吉利、长城等汽车的生产线。

此外，ABB 1987年研发出的Azipod吊舱式电力推进系统，确保船舶运行的安全性，赋予船舶出色的机动操纵性能，并能够大幅降低系统能耗，减少废气排放。产品早在2003年就被烟大渡轮客运专线引进，为其节省燃料20%。

正是这些业内标杆项目，确立了ABB进入中国市场以后在电力与自动化行业的技术领导者地位。

四个阶段，本土化结硕果

如果说初期的项目成功是为ABB在华发展奠定基础，那么从研发、制造、销售到工程服务的全价值链本土化就是ABB未来长期发展的有力保障。目前，ABB在中国90%的销售收入源自本地产品、服务和解决方案。2014年在华订单及销售收入双双超过58亿美元，创历史新高，中国保持集团第二大市场的地位。

ABB的本土化进程大致可分为四个阶段。第一阶段：使优势产品进入中国市场；第二阶段：通过引进技术实现本地生产；第三阶段：通过ABB

first robotic automatic stamping line in China. In 2013, it became the first robot vendor offering water-based glue system solutions. ABB is currently the only robot manufacturer covering all four major processes of automobile manufacturing - stamping, welding, painting and final assembly. Its products are widely used in production lines of Shanghai GM, Shanghai Volkswagen, Guangzhou Honda, Dongfeng Peugeot, Geely, Great Wall, etc.

In addition, in 1987, ABB developed Azipod, the podded electric propulsion system, ensuring safety of marine operation while enabling good mobile control and significantly reducing energy consumption and emission. This product was used by Yantai-Dalian ferry passenger line as early as 2003, saving 20% of the fuel.

These lighthouse projects established ABB as the leader in power and automation industry after entering the market of China.

Fruitful localisation in four stages

If we say that the initial success laid the groundwork for ABB to develop in China, the localisation of the whole value chain, from research and development, manufacturing to sales and engineering services is the guarantee of ABB's long-term development. At present, 90% of ABB's sales revenue in China comes from local products, services and solutions. Both orders and sales revenue in China reached a record high of over USD 5.8 billion in 2014, keeping China as ABB's second largest market.

ABB's localisation process can be divided into four stages:

Stage I: leading advantageous products to enter the Chinese market.

Stage II: local production through import of technology.

Stage III: through the ABB global R&D platform, performing secondary development based on local customized needs and exporting the products overseas.

Stage IV: independent local R&D driving innovation and technical development with "Made in China".

Celebrating its 10-year anniversary in this April, ABB Corporate Research Center in China is one of ABB's seven research centers worldwide. ABB Corporate Research Center in China plays a central and leading role in fields of mechanical, control, material, power electronics, etc., and has filed close to 200 international patent applications.

A series of projects led by or heavily involving the development team of

全球研发平台，针对本地定制化需求进行二次开发并将产品出口海外；第四阶段：实现本土自主研发设计，以“中国创造”推动创新和技术发展。

今年4月迎来十岁生日的ABB中国研究院是集团全球七大研究院之一，目前中国研究院在机械、控制、材料、电力电子等技术领域发挥着核心和带动作用，申请国际专利近200项。

一系列由ABB中国研发人员领导开发及深度参与的项目已结出硕果，如±800千伏高压直流输电技术，实现长距离、低损耗输电并提升可再生能源利用效率的525千伏高压直流电缆，ABB最小的工业机器人IRB120和在今年汉诺威工博会上正式推出的全球首台真正实现人机协作的机器人YuMi等。

除了业务发展，ABB在中国也积极履行社会责任。2014年8月云南鲁甸地震发生后，我们第一时间联络电力公司客户，了解灾区电力设备的损毁状况，提供包括技术、设备在内的所有必要的支持，同时通过中国扶贫基金会人道救援前线救援办公室捐款100万元。2008年以来，ABB已累计在历次自然灾害中捐款1700余万元，帮助灾区人民度过难关，重建家园。

我们还连续11年向“ABB-新长城特困大学生助学基金”捐款，资助国内高校电气工程和自动化等专业特困学生完成学业，截止目前累计捐款超过1200万元，来自全国44所高校的2000多名大学生从中受益。

携手共进，开创可持续发展未来

2015年4月，ABB宣布为“西电东送”的重点项目之一的宁夏灵州至浙江绍兴特高压直流输电工程提供换流变压器及组件、穿墙套管和直流断路器，支持该线路实现高效、稳定的电力输送。其中，ABB的800千伏特高压直流换流变压器及组件采用了创新技术，将首次实现750千伏高压交流输电电网与800千伏特高压直流线路的连接，提高特高压直流输电的输送能力至前所未有的水平。

在机器人行业，ABB在华的研发重点也逐渐从汽车工业的大型机器人转向了3C（计算机、通信和消费电子）行业升级改造需要的小型机器人，本地开发了IRB 120 和IRB 1200等产品，并于2013年在上海成立的ABB精密组装工程中心。

ABB积极支持国内企业“走出去”。比如，与中石化炼化工程（集团）股份有限公司下属子公司洛阳工程有限公司达成协议，将向其承建的哈萨克斯坦阿特劳炼油厂原油深加工项目提供220千伏主变电站解决方案，保障当地生产的电力供应。

改革开放30多年来以来，中国取得了举世瞩目的成就。伴随着改革红利的进一步释放，在经济“新常态”背景下，新型城镇化、能源结构调整和产业升级为我们带来了新的机遇。电力与自动化领域的重大变革，如智能电网的发展、可再生能源并网以及“物、服务与人互联”的趋势，也为我们提供了广阔的舞台。

展望未来，ABB将继续携手各界，支持中国经济发展，用领先的电力与自动化技术帮助客户和社会实现可持续发展。感谢中国政府经济主管部门和中国驻瑞士使馆长期对企业在华发展的支持，祝愿中瑞两国友谊世代相传，不断取得新的合作成果！

ABB China has come to great achievements, such as the ±800 KV high-voltage DC transmission technology, the 525 KV high-voltage DC cable enabling long-distance transmission with low loss and promoting the utilisation efficiency of renewable energy, ABB's smallest industrial robot IRB 120 and robot Yumi, world' first truly collaborative robot officially launched in Hannover Messe this year.

In addition to business development, ABB China also actively fulfils its social responsibilities. After the earthquake in Ludian County of Yunnan in August 2014, ABB immediately contacted the power company customers to learn the damage of power equipment, and provided all necessary technical and equipment support. We also donated CNY 1 million through the humanitarian aid and front-line rescue office of China Foundation for Poverty Alleviation. Since 2008, ABB has donated more than CNY 17 million in various natural disasters to help people overcome obstacles and rebuild their homes.

We also donate to “ABB-New Great Wall Education Fund for Impoverished College Students” for 11 consecutive years to fund impoverished students in electrical engineering and automation majors. The donation has amounted to over CNY 12 million to date, benefiting more than 2,000 students from 44 universities nationwide.

Create a Sustainable Future Together

In April 2015, ABB announced it would provide converter transformers and components, wall bushing and DC circuit breakers to one of the key projects of “West Electricity to the East” - UHVDC transmission project from Lingzhou, Ningxia Province to Shaoxing, Zhejiang Province, to enable efficient and stable power transmission. In this project, the ABB 800 KV UHVDC converter transformers and components employ innovative technologies to achieve connection between 750 KV high-voltage AC transmission grid and 800 KV UHVDC lines, raising the transmission capacity of UHVDC transmission to an unprecedented level.

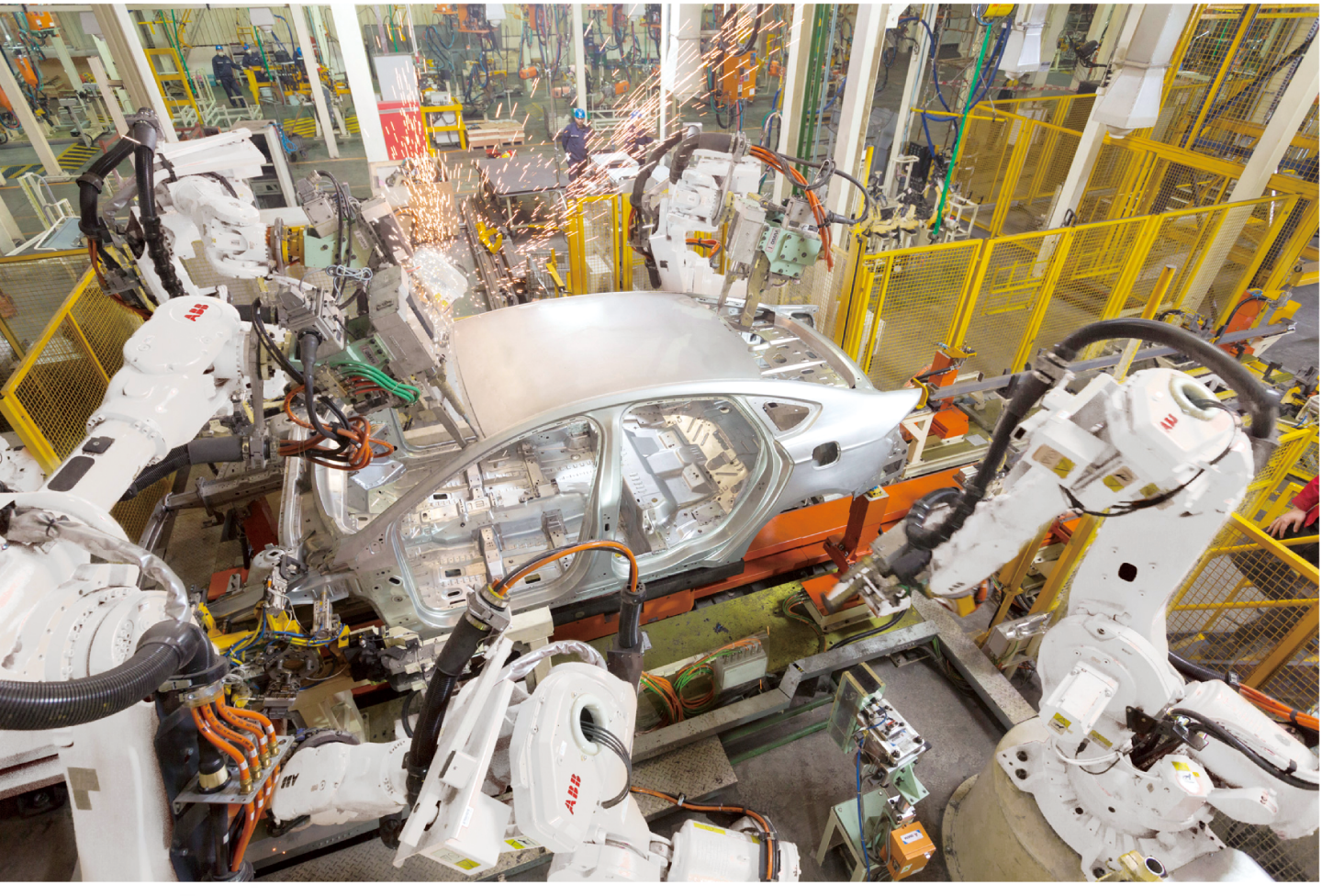
In the robot industry, the focus of ABB R&D in China has gradually shifted from large robot of automotive industry to small robots needed by the upgrading of 3C (computer, communication and consumer electronics) industry. We have locally developed products such as IRB 120 and IRB 200 products, and established ABB Precision Assembly Engineering Centre in Shanghai in 2013.

ABB actively supports Chinese enterprises to “go global”. For example, we reached an agreement with Luoyang Petrochemical Engineering Corporation, a subsidiary of Sinopec Engineering (Group) Co. Ltd. (SEG) to provide a 220 kV main substation solution for a crude oil processing project at the Atyrau Refinery in Kazakhstan, guaranteeing reliable power supply for enhanced local production.

In the three decades since the reform and opening up, China has made remarkable achievements. With further release of benefits from the reform, under the “new normal” of economy, the new urbanisation, energy structure adjustment and industrial upgrade has brought us new opportunities. Major changes in the fields of power and automation, such as the development of smart grids, grid-connected renewable energy and the trend of Internet of Things, Service and People also provide us with vast potential.

Looking to the future, ABB will continue to work together with the whole community to support China's economic development, and to help customers and community to achieve sustainable development with leading power and automation technologies. I would like to express our thanks to the economic authorities of the Chinese government and the Embassy of China in Switzerland for their long-term support. We wish a long-lasting friendship between China and Switzerland and new achievements from the cooperation!

ABB多家本地企业在震后全力以赴生产灾区所需设备。
A number of local enterprises of ABB going all out to produce equipment needed in the disaster-stricken areas.



ABB为长安福特提供了最新的柔性车身总拼定位系统。
ABB provides Chang'an Ford the latest flexible body general assembly positioning system.