Siemens in China

March, 2022





150 years of Siemens in China

Committed to the shared future!





Deeply rooted here for over a century, Siemens moves forward together with China







Being responsible, excellent and innovative, Siemens deeply integrates into China's new development pattern!

A focused technology company



Businesses and Services of Siemens AG



Service & Governance

*Publicly listed subsidiary of Siemens; Siemens Healthineers with its own setup for Service & Governance



By combining the real and the digital worlds, we make new contributions to the digital transformation and sustainable development of China's industries







>30,000 employees

20 R&D hubs

>40 operating companies

The figures of R&D hubs and operating companies are pertaining to Chinese mainland; other figures are pertaining to Greater China; all figures include Siemens Healthineers; by fiscal 2021.

"Siemens China^a" strategy: to accelerate high-value growth and be a top influential technology company

Siemens China^a





Technology to Transform the Everyday



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We commute in cars, which are designed with **Siemens software** ...

... built in factories running on **Siemens automation** ...

... Innovative mobility products and solutions make us feel safe on public transport.



Siemens' optimized solution of **smart power distribution** makes the city more efficient and energy saving We work in **smart buildings** that keep us comfortable and healthy

...

ATTAC

... with a carbon neutral footprint that keeps the planet healthy as well.



Parcel sorting in our daily life is supported by **Siemens motion control solutions** ... We drink beer produced in factories enabled by **Siemens**

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... and rely on life-saving drugs sped to market, thanks to **Siemens** innovations.



Connect, create and collaborate!



Businesses of Siemens





Digital Industries

Digital Industries provides cutting-edge technologies for the automation and digitalization of discrete and process industries, and helps customers unlock their full potential by unearthing the value behind data.

As an innovation leader, DI drives development of industrial IoT by integrating OT and IT. With Digital Enterprise portfolio, it provides companies of all sizes and all types with the right products, end-to-end solutions and services, for integrating and digitalizing the entire value chain.

Currently, DI has 9 R&D centers, 7 factories and 6 training centers in China.



Li Shenhua Chairman of Guangdong Huaxing Glass Co., LTD

Build digital lighthouse factories

Based on the concept of lean digital factory, Siemens provided Huaxing Glass with digitalization blueprint and implementation solutions. The phase I project of Huaxing Glass' first digital lighthouse factory has been successfully completed with a wide range of Siemens offerings, including SCADA, industrial network and cyber security, intelligent instrumentation and MES.

98%

Increase of automatic data acquisition and data transparency

25% increase of production flexibility

30%

Increase of the overall efficiency throughout production and processing

20% reduction of defect rate





We need data-based analysis for higher efficiency. For example, we are able to conduct predictive maintenance based on the life cycle of equipment. MIS can help us improve production efficiency, and further enhance our quality management, energy management, flexible manufacturing management and so on.

> Zhang Xiaodong General Manager of Supply Chain, Swire Coca-Cola in China

Set digital benchmark in the beverage industry

Siemens and Swire Coca-Cola formed a strategic partnership on digitalization, covering fields such as digital plant construction, supply chain intelligent management and training for digital talents. The two parties will jointly build digital plant benchmarks in the beverage industry, aiming to promote digital transformation of Swire Coca-Cola in China and around the world.

10 million kWh

With the interaction of the Manufacturing Information System (MIS) and other systems in the production line, Swire Coca-Cola's plants will save about 10 million kWh of electricity per year, equivalent to saving 3,200 tons of standard coal and reducing 7,500 tons of carbon emissions.





Creating environments that care

Smart Infrastructure

Smart Infrastructure intelligently connects energy systems, buildings and industries to enhance the way we live and work through greater efficiency and sustainability.

By integrating software and hardware, products, systems and solutions, SI makes infrastructures more energy efficient, intelligent and adaptable.

Currently, SI has 12 operating companies and 9 R&D centers in China.



Create a smart village with digitalization

Siemens joined hands with State Grid to help build "China's first smart energy village". For Shanghai Lianmin Villiage Green Energy Application Demonstration Project, Siemens is customizing an integrated solution from planning consultation to the deployment of core energy management platform.

In collaboration with partners, Siemens created an exemplary solution of energy utilization in rural areas by combining energy stream, information stream and value stream.

10%

reduction estimated in energy consumption with heat-power coupling

50%

reduction estimated in carbon emissions





Embark on new path toward intelligent refining

As a strategic partner of Chambroad, Siemens provided the customer with comprehensive power distribution solutions, including medium and lowvoltage distribution systems, power automation products, solar power products and intelligent lighting control systems, etc.

The tailor-made solutions with a high safety level helped Chambroad improve its overall power supply reliability and better meet environmental requirements.

~510,000

A 200KW rooftop solar power system installed by Siemens for Chambroad has generated 510,000 KWH of electricity since it went into operation in 2019, which is equivalent to reducing carbon emissions by 513 tons.





Mobility

As a leading provider of transport solutions, Mobility is constantly innovating its portfolio in the core areas of rolling stock, rail automation and electrification, turnkey systems, intelligent traffic systems as well as related services.

With digitalization, it is enabling mobility operators in China to make infrastructures intelligent, increase value sustainably over the entire lifecycle, enhance passenger experience and guarantee availability.



Chen Chao Vice General Manager Shanghai Shentong Rolling Stock Company

Support driverless metro

Siemens provided train network control systems and traction system core components for FAO trains of GoA4 driverless operation in Shanghai Metro Line 18 Phase I project.

Siemens is joining hands with local partners to explore the field of FAO, co-create the future of digital urban rail transit, and continue providing safe and reliable mobility solutions.



Ensure availability of signaling system

Siemens provided metro signaling projects in Fuzhou, Nanjing and Chongqing with locally-developed Trainguard[®] MT Big Data Diagnosis System (TBDS). Empowered by big data and machine learning, TBDS can realize automatic data collection and precise diagnostic analysis and help to achieve up to 100% availability of signaling system.

Upholding its position of "signaling expertise over a century", Siemens continuously accelerates the localization process in China, and contributes innovative forces to the construction of China's urban transit network.



Siemens Advanta

Siemens Advanta provides end-to-end digital transformation services for enterprises and governments. Based on Siemens' deep domain knowledge, cutting-edge industrial IoT technology and a thriving cross-industry ecosystem, Siemens Advanta covers businesses ranging from strategy & operations consulting, software & platforms integration, and applications & technology platforms development.

Siemens Advanta team has more than 20 years of experience in the fields of IT, OT and innovation. It has more than 9,000 employees at 89 offices in 19 countries and regions across the globe.



Empower cities with enabling centers

By the end of 2021, Siemens Advanta had partnered with Yantai, Jining, Wuhan, Yulin and Shenyang, etc., to co-create industrial Internet enabling centers.

The centers provide end-to-end digital transformation consulting and integration services, empowering the development of local enterprises and the upgrade of local industries.





Portfolio Companies

Under the umbrella of Portfolio Companies, Siemens operates several units that have been bundled together since April 1, 2019.

With a decentralized setup, fast decisionmaking processes and quick response, these units have agile and flexible operations. These advantages make the Portfolio Companies more competitive in their specific markets and enable them to focus more sharply on their customers.



Siemens has always been a leader and innovator in industrial transformation. We are confident in the cooperation with Siemens in industrial digitalization and intelligent manufacturing.

> Yu Yong Chairman of the Board of HBIS Group Co., Ltd

Build digital stockyard with capacity of 10 million tons

The digital stockyard of HBIS Grouphas a capacity of 10 million tons. Its scale and system complexity are in the leading position in the iron and steel industry.

Siemens' digital stockyard management solution made intelligent and unmanned operation possible for the stockyard. In the process of technology development and project execution, Siemens' Large Drives Applications ensured that the stockyard could meet high environmental standards during operation and that its blending and matching quality of materials reach a high level.



Boost sorting capacity of aviation hub

Siemens commissioned state-of-the-art baggage handling system at Guangzhou International Airport. It is the first system in China to perform its most important sorting function exclusively with tray technology. This flexible and efficient solution combines tray technology and conveyor belt with intelligent control software applications, which contributes decisively to the envisaged expansion of the airport's capacity and to further enhancing passenger convenience.

~4,000

The fully suspended early bag store (EBS) offers capacity for 4,000 pieces of baggage, and can be expanded to up to 6,000 storage spaces.

~15,500

The baggage handling system can accurately sort up to 15,500 baggage items per hour.





Siemens Healthineers

As a leading medical technology company, Siemens Healthineers is continuously developing its product and service portfolio, with AI-supported applications and digital offerings that play an increasingly important role for the next generation of medical technology. These new applications will enhance the company's foundation in in-vitro diagnostics, image-guided therapy, in-vivo diagnostics and innovative cancer care.

In China, its installed base is around 65,400 units, covering more than 14,600 hospitals.



Continue to advance digital healthcare

By the end of September 2021, Siemens Healthineers 5G remote technology had been deployed in more than 200 hospitals in China, and had been applied in the field of full-line large-scale imaging devices and interventional procedures. The total remote service time had exceeded 400,000 minutes, and nearly 150 experts could be connected on the platform.

In July 2021, Siemens Healthineers 5G vehicular CT, the only one in the industry certified for special environmental suitability and safety on the plateau so far, was put into use to support emergency treatment and early disease screening in remote areas.



Siemens is committed to green, low-carbon and sustainable development





Committed to sustainability in environment, society and governance

Siemens is contributing significantly to sustainable development of the society in a responsible way through the impact of our products, solutions and responsible operations along the value chain.

No.1

among industrial enterprises in Dow Jones Sustainability Index in 2021

40%

CO₂ reduction according to SBTi guidelines since 2019 base year

Our DEGREE framework sets clear priorities for Sustainability at Siemens



Our DEGREE framework sets clear goals in China and is on the road to success

Decarbonization	 Siemens China actively promotes low-carbon and green development, and contributes to achieving the goals of Siemens globally: carbon-neutral operations by 2030 and carbon-neutral supply chain by 2050. In September 2021, Siemens launched Zero-carbon Pioneer Initiative in China. The company co-creates a green ecosystem with all partners to help build end-to-end zero-carbon industrial chains.
Ethics	 Business Conduct Guidelines training for 100% of the workforce in China every three years. Siemens was the first international company in China to achieve relevant local information security certification in terms of corporate entity, infrastructure and key product portfolio.
Governance	 Siemens establishes a supply chain based on ESG (Environment, Society and Governance), strictly requires suppliers in China to comply with Siemens supplier Code of Conduct and relevant requirements for sustainable development, implement 100% supplier access, and conduct external audits for sustainable development.
Resource efficiency	 Siemens strictly complies with the requirements of relevant policies and regulations in China, actively participates in formulation of product standards, and aims to achieve eco-design for 100% of relevant Siemens product families by 2030. By fiscal 2021, the company had realized reuse and resource disposal of industrial solid waste at 95% of the production sites in China, and all office and production sites had basically achieved zero landfill of primary waste.
Equity	 Employee share plans: open to all employees in Greater China. Commitment to mobile working in China, enabling employees to digitally collaborate and choose highly efficient way of working. Women in Tech. community was founded in 2019 to cultivate the growth of female employees. The Siemens China Disabled Support Program has been carried out in Beijing, Shanghai, Tianjin and Chengdu, etc., providing employment for nearly 100 people with disabilities. By fiscal 2021, Siemens Employee Volunteer Association had organized nearly 450 volunteer activities in 17 cities of China.
Employability	 The new Healthy and Safe @ Siemens program is scheduled to be 100% implemented in China by 2025 to enhance resilience of employees to cope with the changing environment. In fiscal 2021, Siemens maintained safe and stable operation and productions in China, with a low injury rate (LTIFR * 0.01). In fiscal 2021, the number of digital learning hours per employee at Greater China increased nearly two-fold from fiscal 2020.

Siemens China Zero-carbon Pioneer Initiative



With digital innovations and cross-industry expertise, Siemens co-creates a green ecosystem with all partners in China to help build end-to-end zero-carbon industrial chains, in support of China's "30.60 goal"!

Enable green and low-carbon transformation of customers and industries

- Helped Swire Coca-Cola, Shanghai Lianmin Village, Shanghai Metro Line 18 and other customers and projects to achieve energy conservation and emissions reduction
- Aim to empower sustainable development of more than 10,000 customers from dozens of industries in China by 2025



Drive decarbonization in our own operations

- Enhance lean and digital production at manufacturing sites in China. Siemens' many manufacturing sites have obtained the national certification of "green factory"
- From 2014 to 2020, Siemens China made significant contribution to the **54%** carbon footprint reduction of Siemens globally



development of supply chain

Support sustainable

• Aim to assist more than **500** key suppliers in China in the field of decarbonization by 2025



Siemens is shaping the future





Drive innovation

Siemens is open to innovation and committed to creating next-generation technologies.

20

R&D hubs¹

>4,800 R&D & engineering staff²

~11,000

active patents and patent applications¹

MindSphere Application Centers³

~120

representative seats in standardization committees and associations⁴

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1. Chinese mainland, with Siemens Healthineers

2. Greater China, with Siemens Healthineers

3. Greater China, without Siemens Healthineers

4. Chinese mainland, without Siemens Healthineers All figures are by fiscal 2021.



We leverage our Company Core Technologies across all businesses for the longterm success of Siemens and customers







We make success out of cutting-edge technology innovations









- SiePA is a predictive analytics system developed by Siemens in China. Combining field experience with industry big data analysis, SiePA provides users with an efficient digital predictive, early warning, and diagnostic mechanism to assess the health of production and equipment, helping users quickly predict, diagnose, and repair potential failure risks.
- It has been successfully applied in chemical, cement, steel, water and many other industries.
- blue GIS, an environmentally friendly gasinsulated switchgear developed by Siemens in China, helps customers save energy and improve efficiency, and has been successfully applied in several projects including the urban infrastructure upgrade of Zhangjiakou.
- Adopting fluorine gas-free solution and vacuum arc extinguishing technology, blue GIS does not generate any harmful gases or chemical additives during operation.
- Railigent[®] on Premise, developed by the MAC team in China, is an open digital ecosystem specially tailored for local customers. It implements predictive maintenance through condition monitoring and data analysis, effectively reducing lifecycle cost of rail transit system.
- The platform has obtained software copyright certificate issued by the National Copyright Administration of China in May 2020 and has been successfully applied to domestic subway lines.
- SiGREEN provides necessary technical support for credible disclosure and verification process of enterprise product carbon footprint, and has been successfully implemented at Siemens' digital factories in Amberg and Chengdu.
- SiGREEN can calculate the carbon emission data of all core production equipment and the related manufacturing process. Through blockchain technology, SiGREEN enables reliable tracking of product's carbon footprint across the supply chain.





Nurture digital talents

Siemens partners with the Ministry of Education to jointly foster digital talents for the future.

~440

labs have been developed in collaboration with universities and vocational schools in China. ¹

>800

R&D projects have been carried out in cooperation with more than 90 universities and research institutions.²

~77,000

innovative engineering talents nurtured through "Siemens Cup" China Intelligent Manufacturing Challenge for 16 years. ¹

1. Chinese mainland, only Digital Industries 2. Greater China, with Siemens Healthineers All figures are by fiscal 2021.





Create lasting value for the society

Siemens I-Green University Students Summer Project launched in 2018 aims to support education on environmental protection and technological innovation.

The project has supported 880 student volunteers from 18 universities in teaching classes in 27 provinces, benefiting tens of thousands of primary and secondary school students and rural teachers in China. Since 2019, 123 Siemens employee volunteers has provided coaching and support to the university students as I-Green mentors.





Employer of choice

Siemens attracts and develops talents by encouraging them to take full ownership of self-learning and career development and fosters high-performance culture.

Siemens adopts mobile working in China, empowering employees to leverage digital collaboration and choose highly productive way of work.

For eight consecutive years, Siemens China has been No.1 among Industrial Engineering companies on the list of Most Attractive Employers in China by Universum.





Uphold Compliance

Siemens adheres to the high level of ethical and moral standards in doing business. Only clean business is Siemens business.

High rankings

in Dow Jones Sustainability Index in the category of Compliance since 2009.

>15,000

employees in China have completed the Business Conduct Guidelines training online.*

- Chinese mainland, without Siemens Healthineers
- By fiscal 2021



Transform the everyday!

Siemens China

Email: <u>contact.slc@siemens.com</u> Company hotline: 400 616 2020

For further information, please visit: <u>www.siemens.com.cn</u>

Scan the QR code to follow Siemens China WeChat.

