



Empowering the Dream

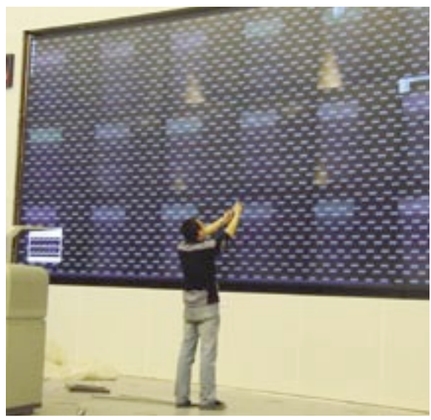
How Siemens contributes to the Beijing Games

"One World One Dream" – the Chinese capital is gearing up to deliver its promise to host the best Olympic Games ever. With more than 100 projects worth of over RMB 13.8 billion covering all three business sectors – Industry, Energy and Healthcare, Siemens has become one of the trustworthy partners who helped to transform the city to meet the challenges posed by such a mega event. The company once again demonstrates its strong commitment to the Chinese market and proves its competence in infrastructure and innovation that is needed for megacity development.











For this summer holiday, not a single seaside resort will lure away swim lover Chen Chen from her hometown Beijing as the 18-year-old high school graduate does not want to miss the once in lifetime experience – watching the Olympic Games right here in her city. “My Dad is going to take me to watch women's 4x100 meter swimming relay at the National Aquatics Center,” she said excitedly, “and I can't wait to show off the city to my cousins from Zhejiang Yiwu by taking them for a ride on the new Olympic Branch Line.” Thanks to the upcoming Games which will be held from August 8 to 24, the ancient Chinese capital has been transformed extensively, with new metro lines, lush greenery, modern shopping malls and high-rise office buildings appearing throughout the city.

Hosting the Olympics in Beijing is like a coming out party where the country can show off its national strength and display soft power to the world. The government has made all out efforts to ensure the very success of the games. Undergoing a massive makeover in preparation for the Games, Beijing has spent heavily on infrastructure with reportedly over RMB 300 billion injected to present itself as a modern metropolis. Projects include construction of a third airport terminal, 150 kilometers of new suburban rail and subway track, more than 700 additional kilometers of urban highways, a dozen stadiums, museums, convention centers, trade fair centers and administrative buildings.

Being a world leading infrastructure company, Siemens has made contribution to the city's overall development. Many of the company's projects have a strong focus on environmental improvements and ensure sustainability of venues and infrastructure as well as a better quality of life for the citizens of Beijing. “ We 're very proud that Siemens is one of the key solution providers for Beijing in the preparation for 2008. We have been able to be a strong partner contributing with solutions from power supply, water, transportation, building technology and healthcare,” Siemens China President and CEO Richard Hausmann said. “The upcoming Games will be a great opportunity to see the new face of Beijing with remarkable technology contributed by Siemens.”

Increased Mobility

Indeed, anyone traveling to Beijing today will enter a world full of Siemens technology. At one of the major entry points for the visitors – Beijing Capital Internal Airport, the new Terminal 3 has been equipped with Siemens baggage handling system, which can sort and transport up to 19,200 baggage items per hour to the required destination safely and efficiently. The dragon shaped new terminal is one of the key Olympic projects designated by the Chinese government. “For the majority of visitors to the Olympics, their first experience in China will be when they arrive at the new airport terminal. To ensure that this experience forms a favorable impression, it's important that their luggage is quickly and accurately processed by our computer controlled system and delivered to them in a timely manner,” said project manager Jeff Martin. With the 68 km-long high-speed tray and conveyor system – one of the world's biggest baggage transport systems, the airport's annual passenger handling capacity will double to 60 million.

Olympic Park
奥林匹克公园

Millions of people from overseas and across the country are expected to visit Beijing during the Games. Promoting public transportations is one of the top priorities of the city which has over 15 million people and 3.3 million vehicles. The subway networks have been expanded greatly to eight metro lines from the original three in just five years. Of the five new lines, Line 10 and Olympic Branch Line with four stops linking main Olympic sites are equipped with Siemens' signaling system and control technology. Trainguard MT, the most advanced modular automatic train control system from Siemens installed at Line 10 and Olympic Branch Line, provides automatic driving of the trains with perfect passenger comfort and excellent stopping accuracy at platforms. Highlighting the technology advantage, project manager Bi Weiwei explained: “The radio-based, moving block ATO (Automatic Train Operation) train control system that applied for the first time in the city's metro network can help the two lines achieve dense headway time interval of 3 minutes during the Games.”

With a new Beijing-Tianjin Dedicated Passenger Line putting into operation on August 1, the traveling time between the two cities is cut down significantly by

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> ***– Siemens China President & CEO Richard Hausmann***

half to about 30 minutes. Tianjin, about 120 km southeast to Beijing, will be the site for several Olympic events. Jointly working with Chinese partner Tangshan Locomotive & Rolling Stock Works, Siemens is building 60 high-speed CRH3 trains for Chinese Railway Ministry. First five trains are running on the Beijing-Tianjin Passenger Line. The train with a total length of 200 meters and a capacity of up to 601 seats can travel at a speed of more than 300 kmh. The advantage of the train is its use of distributed traction technology. All the equipment is accommodated under the floor of the high-speed train so that the trains have approximately 25 per cent more seats for the same length of train, a uniform exterior design for all parts of the vehicle and also low infrastructure maintenance costs due to lower axle loads. Apart from trains, Siemens has also provided signaling, communication and power supply systems for the Beijing-Tianjin Dedicated Passenger Line.

World-class Sports Venues and Healthcare Infrastructure

Beijing wants to dazzle the world with its first-class Olympic buildings and venues when the gaze falls on it on August 8. Out of the 31 venues which are mostly located within the 12-sq-km Olympic Park in the northern part of the city, 20 new stadiums have been built and the rest 11 have been renovated. One of the most eye-catching architectures is the National Aquatics Center or “Water Cube”, where swimming, diving, synchronized swimming and water polo competitions will be held. Instead of concrete walls, the building is covered by transparent membrane, creating an illusion that the structure consists of transparent bubbles.

To guarantee smooth functioning of this world's biggest indoor swimming stadium, Siemens provides a fully integrated extra-low voltage (ELV) solution with 12 sub-systems covering from central integrated management, building automation to stadium public address and lighting. The ELV (under 50 volts) solution is part of Siemens' Total Integrated Stadium Solution, which centralizes and integrates the monitoring, control and management of all electrical installations including medium voltage, low voltage and ELV throughout a stadium. It can minimize energy consumption and workload while improving reliability, comfort and flexibility.

“The Fully Integrated Stadium concept optimally combines state-of-the-art technology, complex installation and the integration of different systems,” said Kang Wei, General Manager of the National Aquatics Center. “It's important that we can rely on a partner like Siemens, which has so much experience and can meet all our requirements and stick to the project's tight schedule.” The excellent project execution has won acclaim from the client, which has sent us a formal thank-you letter in recognition of our high quality work and timely delivery of the project before the deadline.

On top of the complex project at the Water Cube, the company has also supplied world leading technology products and solutions to other major stadiums and facilities. Just to name a few, we guarantee sufficient power supply, offer lighting and fire alarm system to the Tianjin Olympic Center, where part of the qualifying soccer matches will be held. At the Workers Stadium which will host quarter-finals and semi-finals of the soccer games, wireless ticketing technology, access control and security system have been installed to reduce operational costs. Siemens has equipped the National Convention Center, the main news broadcasting center during the Games, with fire alarm system and building automation system to ensure highest security standard and smooth operation.

Medical standard of the city has been improved by using more advanced medical equipment and solutions from the companies including Siemens. For example, we have provided four designated Olympic hospitals with the most innovative equipment and solutions such as molecular

imaging SOMATOM Definition and MI Biograph 64. Also in the Phase I project of China Center for Disease Control and Prevention (CDC) – a key infrastructure project for the Games, Siemens provides fully integrated power supply solutions and outstanding technology that optimizes the diagnose rate and emergency response.

Cleaner Environment

As one of the three themes of the Beijing Games is “Green Olympics”, the city spares no efforts in protecting environment, conserving resources and maintaining the ecological balance. Measures have been taken to increase energy efficiency, clean up air and preserve water. Siemens as a leading company in terms of climate and environmental protection has helped to improve Beijing's energy sector and overall environment condition.

The city had long been troubled with power shortage due to inadequate tools for managing power grid and insufficient power plant capacity. A reconstruction project of the Beijing Power Grid was carried out to ensure a reliable and sufficient power supply to meet peak demand during the Games. Siemens has contributed to the Beijing Power Grid reconstruction by supplying high-voltage Gas Insulated Switchgear (GIS) and 2,000 sets of medium-voltage switchgears. Now Beijing's power supply has been significantly increased by 33 per cent to 68.9 million kilo-voltage amperes. Apart from the power grid, we also provide several Beijing's power plants with products and solutions. Taiyanggong Gas Turbine Power Plant, which will supply clean energy to the Olympic Park and it surrounding area, is equipped with Siemens's high-voltage GIS, medium-voltage switchgear and private branch exchange. While at the Caoqiao Thermal Power Plant, our high quality products and pollution treatment process play an important role in building the high-tech thermal power plant that is able to reduce pollution and provide stable energy supply to the public. Separately, we provide

Tianjin Electric Power Corporation (TEPC) with medium-voltage switchgears, high-voltage GIS and several power transformers for a number of substations. One of them is the Tianjin Olympic Center substation, which is specially designed to supply power to the Tianjin Olympic Center. TEPC also modernizes and enhances its power network with the state-of-art products from Siemens.

For years, an effort has been under way to dismantle and relocate all major industrial plants in the capital to improve its air quality. One of the most high profile cases is the relocation of Beijing Capital Iron and Steel Group (Shougang). A flagship enterprise of China's iron and steel industry, Shougang has long been blamed for air pollution in Beijing. In 2005 it decided to phase out its smelting operations by 2010 and move to Caofeidian of Tangshan city, which is about 200 km northeast of Beijing. During the construction of Shougang Caofeidian new steel plant, Siemens supplies medium-voltage & GIS, large drives and motion control to ensure smooth operation of the new facilities. It is estimated that with Shougang's production facilities gone, the city will have 18,000 tons less particulate matter a year, guaranteeing a clean environment for the Games.

Improved capability in water and wastewater treatment is one of the important parts of the “Green Olympics”. The authorities set the target to process 90 per cent of wastewater, of which 50 per cent can be recycled by 2008. With a cutting-edge membrane filter technology, Siemens has supported the expansion and reconstruction project of Beixiaohe Wastewater Treatment Plant, which pump high quality reclaimed water for the Olympic Village central area, lakes and fountains. Siemens Membrane Bio Reactor (MBR) equipment, representing the most advanced MBR technology in the world, is applied to more than double the plant's daily treatment capacity from 40,000 cubic meters to 100,000 cubic meters. According to local media, Beixiaohe will produce higher quality water than any other wastewater treatment plants in the city. The project significantly contributes to improving the ecological environment in the northern part of Beijing.

Catalyst Effect on Business Opportunities

The Games will be held in just a few days and all the infrastructure servicing the mega event is ready and up in running. However, the mega city planners are looking beyond the Games to seek more sustainable development. “Many of the things planned for the Olympics only represent the foundation for Beijing's further development,” said Michaela Stolz-Schmitz, Director of Corporate Marketing and the 2008 Project Office of Siemens China. “The city's infrastructure will be expanded even further in coming decades.” Taking the metro network for instance, it will be expanded from current 198 km to 561 km by 2020, when it will become the longest subway system in the world.

“Having the strategy to build the first-class venue and supply first-class equipment, Siemens has the chance to be part of the Games and to provide solid solutions to the customers. It means within one mega city now we basically have references that are very much suitable to show to any other city, which is hosting a mega event or which is a mega city having similar problems like Beijing,” said Stolz-Schmitz.

Siemens' successful delivery of integrated technology solutions and products to the Games related projects has gained full trust from the customers and served as a catalyst on winning new orders and further strengthening our market position. Following the excellent installation and management of the baggage handling system for T3, Beijing Capital International Airport has expressed intention to consider Siemens as a partner in future airport projects. Apart from sending a formal thank-you letter for our outstanding work, the owner of the Water Cube also expressed willingness for further cooperation with Siemens in the reconstruction of the stadium after the Games. With good reference in the Beixiaohe project, Siemens Water Technologies in early this year (2008) won an RMB 70 million contract to provide Xincheng Wastewater Treatment Plant with MBR solution in Wuxi to treat industrial wastewater. Due to large discharge of untreated industrial wastewater, the city in eastern Jiangsu Province has been often suffering from algae outbreaks in Taihu Lake – one of its major drinking water sources.

The Games not only provide huge business opportunities but serves as a perfect platform to promote the company. To amplify our brand value and build up customer relationships, a hospitality program themed on “Experience. Technology” will be launched during the Games, offering customers and business partners unique and exciting opportunities to experience our key projects related to the Games. According to Stolz-Schmitz who is organizing the program, people from London and Sochi are expected – the hosting cities of the Olympics in the coming years. They will be briefed on what Siemens has done for the Beijing Games. The guests are able to visit a forum on three sectors of Industry, Energy and Healthcare at the Siemens Beijing Center. The forum will be accompanied with two exhibitions on Siemens contribution to Beijing 2008 and Siemens and climate change. In addition, Siemens is sponsoring the “German House” and the “Champion Club”. “In the German House Siemens will show a presentation summarizing its contribution to Beijing 2008 to share the achievement with suitable partners in the future. While in the Champion Club where athletes, the sports community and the business community are meeting, business groups will be invited to exchange experience on what they've done for the Games,” Stolz-Schmitz explained.

Committed to sustainable development of megacity and offering integrated infrastructure solutions to mega events, Siemens is determined to make the best out of its unique portfolio and seize more business opportunities to prosper together with China. Richard Hausmann said: “Being a trustworthy partner for China's economic development, Siemens not only has helped to make the country's Olympics dream come true but also will continue to support the country to realize its dream of revitalization.”

齐心协力 共圆梦想

西门子助力北京奥运

“同一个世界，同一个梦想”——中国北京正全力以赴，以兑现其成功举办有史以来最出色的奥运会的承诺。西门子参与建设了 100 多项奥运工程，总价值逾 138 亿元人民币，涉及旗下工业、能源和医疗三大业务领域，是北京奥运会值得信赖的合作伙伴之一。西门子竭尽全力帮助北京成功实现转变，以应对奥运会这一全球性盛会所带来的巨大挑战。西门子再次展现了对中国市场的坚实承诺，同时证明了自己在大都市发展所需的基础设施与创新方面的实力。

这个暑假，没有哪个海滨度假胜地有足够的魅力可以让喜欢游泳的晨晨离开她的家乡北京，因为这位 18 岁的高中毕业生实在不愿错过生命中也许仅此一次的经历——在家门口观看奥运会。她兴奋地表示：“我爸会带我到国家游泳中心观看女子 4x100 米游泳接力比赛。而且我也急着想向来自浙江义乌的表弟们展示北京的魅力，我会带他们去乘坐新建的奥运支线。”即将于 8 月 8 日至 24 日举行的奥运会，让北京这座中国古都发生了翻天覆地的变化，整个城市到处可见新建的地铁线路、郁郁葱葱的绿化景观、现代化的购物商场，以及高耸入云的办公大楼。

北京奥运会对于中国而言就像是一次“展示派对”，可以借此机会向全世界展示其综合国力。中国政府正在全力以赴，确保第二十九届奥运会的成功举办。为了迎接奥运会的到来，北京开展了一场大规模的旧貌换新颜活动。为了展现现代化大都市风采，据称北京已在基础设施建设方面投入超过 3000 亿元人民币的巨资，建设的核心工程包括三号航站楼、150 公里的新轨道交通线路、超过 700 公里的新建高速公路，十几个体育场馆、博物馆、会议中心、贸易中心以及政府行政大楼等。

作为世界领先的基础设施企业，西门子为北京的全面发展做出了自己的贡献。西门子的许多工程都非常注重环境的改善，以保障场馆与基础设施的可持续性以及北京市民的生活质量。西门子（中国）有限公司总裁兼首席执行官郝睿强表示：“令我们感到自豪的是，西门子是北京在筹备 2008 年奥运会过程中的重要解决方案提供商之一。我们一直以来都是北京市的得力合作伙伴，在供电、供水、交通、楼宇科技、医疗等领域提供解决方案。即将举行的北京奥运会将让世界看到北京的新形象，而西门子的卓越技术对此功不可没。”

改善交通状况

事实上，今天任何人前往北京，都将进入一个到处充斥着西门子技术的世界。在北京的门户——首都国际机场，新建的三号航站楼配备了西门子行李处理系统，每小时可安全有效地将近 19,200 件行李物品分拣和运输至规定目的地。拥有中国龙外形的三号航站楼是中国政府指定的奥运会重要配套工程之一。西门子行李处理系统项目经理 Jeff Martin 表示：“对大多数奥运游客而言，他们对中国的最初印象就是抵达新航站楼时的印象。为了确保能够给旅客留下美好的印象，其中比较关键的一点是，我们的计算机控制系统可以快速准确地对行李进行处理，使旅客能够及时取到行李。”首都国际机场三号航站楼配备了 68 公里长的高速行李输送系统，是世界上最大型的行李输送系统之一，这将使得机场的年客运能力增加一倍，达到 6000 万人次。

奥运会期间，预计将有数百万国内外游客来到北京。对于这座拥有超过 1500 万人口与 330 万辆汽车的城市，首要任务之一是改善公共交通。经过短短的五年时间，北京的地铁线路从原有的三条线路大幅增至现在的八条线路。在五条新建的地铁线路中，10 号线以及奥运支线都配备了西门子的信号系统以及控制技术。在 10 号线与奥运支线上安装的 TrainGuard MT，是西门子最先进的模块化自动铁路控制系统，能够实现列车的自动驾驶，并保证最佳的乘坐舒适性以及在站台停靠的卓越准确度。为强调这一技术的优越性，项目经理毕危危解释道：“基于无线通讯的移动闭塞 ATO（自动列车操作）列车控制系统是首次应用于北京的地铁系统，能够在奥运会期间使列车运行间隔时间缩短至 3 分钟。”

京津客运专线于 8 月 1 日正式投入运行，北京至天津的行程时间将缩短一半，只需 30 分钟左右即可轻松抵达。距北京东南约 120 公里的天津市是奥运会协办城市之一，届时将会有多场奥运比赛在这里举行。西门子与中方合作伙伴唐山轨道客车有限公司合作，为中国铁道部制造 60 列 CRH3 高速列车，其中首批五列已经在京津客运专线投入使用。CRH3 高速列车总长达 200 米，有多达 601 个座位，运行时速超过 300 公里，其优势在于采用了分布式牵引技术。所有设备都分布于列车底部，从而使高速列车的座位较之同等长度的普通列车增加了约 25%，列车所有车厢的外部设计保持一致，而且因为低轴重，基础设施维修费用也随之降低。除列车之外，西门子还负责为京津客运专线提供信号系统、通信系统以及供电系统。

世界一流的体育场馆与医疗设施

北京希望能够在 8 月 8 日万人瞩目之时，向世界展示其一流的奥运场馆。31 个场馆中的大部分都坐落于北京北部地区占地 12 平方公里的奥林匹克公园里，其中 20 个是新建体育场馆，余下的 11 个是重新翻修的场馆。被称作“水立方”的国家游泳中心是其中最引人瞩目的建筑之一，

令我们感到自豪的是，西门子是北京在筹备 2008 年奥运会过程中的重要解决方案提供商之一。我们一直以来都是北京市的得力合作伙伴，在供电、供水、交通、楼宇科技、医疗等领域提供解决方案。即将举行的北京奥运会将让世界看到北京的新形象，而西门子的卓越技术对此功不可没。

——西门子（中国）有限公司总裁兼首席执行官郝睿强

在这里将举行游泳、跳水、花样游泳和水球比赛。国家游泳中心的外部并非采用混凝土，而是覆盖了一层透明膜，让人看起来整个建筑物似乎是由透明的泡泡构成。

为了确保这一全球最大的室内游泳馆的顺利运行，西门子为其提供了全集成化的弱电 (ELV) 解决方案，由 12 个子系统组成，包括中央集成管理、楼宇自控、体育场馆公共广播、体育场馆照明等等。弱电（低于 50 伏）解决方案是西门子全集成体育场馆解决方案的组成部分，后者对整个体育场馆范围内的所有电气装置（包括中压、低压、弱电装置）的监测、控制、管理实现集成化与一体化，不仅能够最大程度地降低能耗与负荷，而且还能提高稳定性、舒适性和灵活性。

“基于全集成化体育场馆概念，先进技术、复杂装置以及各种系统集成得以完美地结合在一起。”国家游泳中心总经理康伟表示，“重要的是，我们可以放心地与像西门子这样的业务伙伴合作。西门子具备丰富的经验，能够满足我们的所有要求，并且能够在时间紧迫的情况下按时交付。”我们卓越的工程执行能力成功赢得了客户的肯定，并给我们发来了正式的感谢信，高度赞扬了我们的高质量工作水平以及按时交付的能力。

除了复杂的水立方工程之外，西门子还负责为其他大型体育场馆及设施提供世界领先的技术产品与解决方案。比如，在即将举办部分足球预赛的天津奥林匹克中心，西门子负责为其保障充足的电力供应，并提供照明与消防报警系统。在将要举办足球赛四分之一决赛以及半决赛的北京工人体育场，西门子为其安装了无线售票、门禁、安全系统，以降低运营成本。此外，西门子还为国家会议中心，也是奥运会期间的主新闻中心，配备了消防报警与楼宇自控系统，以确保最高安全标准以及会议中心的顺利运行。

北京还采用了西门子等公司提供的先进医疗设备与解决方案，从而使城市的医疗水平得以提高。譬如，我们为四家奥运定点医院提供了创新设备与解决方案，如 SOMATOM Definition 与 MI Biograph 64 系统。此外，在作为奥运会关键基础设施工程的中国疾病预防控制中心的一期工程中，西门子负责提供全集成化供电解决方案，以及用以优化诊断率与急救工作的卓越技术。

更洁净的环境

“绿色奥运”是北京奥运会的三大主题之一，因此北京市不遗余力地保护环境、节约能源和维护生态平衡，并采取了多项措施提高能源效率、清洁空气和保护水源。作为气候与环境保护领域的领先企业，西门子在帮助提升北京能源利用、改善环境条件方面发挥了重要作用。

因为没有适当的电网管理工具，再加上发电厂的产能有限，北京长期以来一直饱受电力短缺的困扰。为此北京电网启动了改造工程，以确保可靠充足的电力供应，满足奥运会期间的高峰用电需求。西门子在北京电网改造工程中做出了积极贡献，为其提供了高压气体绝缘开关柜以及 2,000 套中压开关设备。现在，北京的供电能力已得到显著提高，较之以前提高了 33%，达到 6890 万 KVA。除电网之外，我们还为北京的几家发电厂提供了产品与解决方案。太阳宫燃气热电工程就配备了西门子的高压气体绝缘开关柜、中压开关设备以及专用电话交换机，该发电厂将为奥林匹克公园及其周边地区提供清洁能源。而在草桥热电厂，西门子的高质量产品及污染治理工艺发挥了重要作用，兴建的高科技热电厂不仅能够降低污染，而且还能向市民提供稳定的能源供应。另外，我们还为天津电力公司的多个变电站分别提供了中压开关设备、高压空气绝缘开关柜以及数台变压器，其中包括专为天津奥林匹克中心供电的天津奥林匹克中心变电站。同时，天津电力公司还采用西门子的先进产品，对电网进行现代化改造，增强供电能力。

多年来，北京市为提高空气质量，一直致力于大型工业厂房的拆除与搬迁工作。其中规模最大的要算北京首都钢铁集团的搬迁。作为中国钢铁行业的旗帜，首钢长期以来因北京的空气污染问题而备受指责。2005 年，首钢做出决定，要在 2010 年之前逐步取消冶炼业务，并搬迁至距离北京 200 公里的唐山市曹妃甸。在首钢曹妃甸新厂的修建过程中，西门子负责供应中压产品与气体绝缘开关柜、大型电机以及驱动控制系统，以确保新厂的顺利运行。据估计，随着首钢生产厂房的搬迁，北京每年产生的污染颗粒物将减少 18,000 吨，从而保障在奥运会期间北京能拥有洁净的环境。

提高污水处理能力也是“绿色奥运”的重要组成部分。相关政府机构制定了处理 90% 污水的目标，其中 50% 可在 2008 年之前完成循环应用。北小河污水处理厂为奥运村的核心区、湖泊以及喷泉输送高质量再生水，西门子凭借尖端的膜过滤技术为其扩建与重建工程提供支持。西门子的膜生物反应 (MBR) 设备代表了全世界最先进的 MBR 技术，其应用使得北小河污水处理厂的日处理能力提高了一倍多，从原来的 40,000 立方米增至 100,000 立方米。据当地媒体报道，北小河污水处理厂所生产的再生水要比其他废水处理厂的质量更高。该工程为北京北部地区生态环境的改善做出了显著贡献。

催生商机

奥运会即将举行，所有服务于此次盛会的基础设施已经准备就绪，即将投入运行。不过，城市规划人员并不仅仅着眼于奥运会，而是努力寻求进一步的可持续发展。西门子（中国）有限公司市场部总监兼 2008 项目部总监史明佳表示：“针对奥运会所做的很多规划只是北京进一步发展的基础。在今后几十年里，北京的基础设施还将再次扩建。”以地铁系统为例，截止到 2020 年，地铁线路的长度将从现在的 198 公里增至 561 公里，从而成为世界上距离最长的地铁系统。

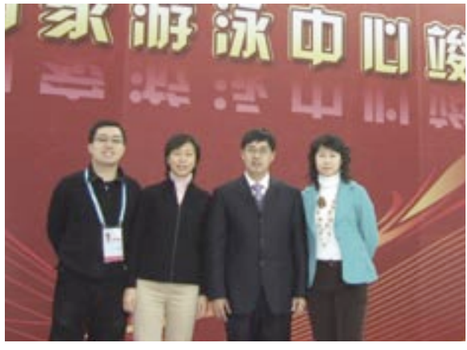
史明佳还指出：“基于构建一流场馆、提供一流设备的策略，西门子得以有机会参与到奥运会中，为客户提供可靠的解决方案。这意味着，我们在北京这个大都市成功完成的项目，可以向那些即将举办大型活动的城市或者与北京拥有相似问题的大城市展示西门子的实力。”

西门子顺利为奥运会相关工程交付集成化技术解决方案与产品，这为公司赢得了客户的充分信任，也将为西门子带来新的订单，进一步巩固其市场地位。在出色地完成三号航站楼行李处理分拣系统的安装与管理工作后，首都国际机场已经表达了在今后项目中与西门子合作的意向。而水立方的业主不仅发来了正式的感谢信，而且还表示愿意就奥运会后场馆的重建工程与西门子再度合作。此外，由于在北小河项目所取得的成功，西门子水处理技术在今年年初赢得了价值 7000 万元人民币的合同，负责为无锡新城污水处理厂提供用以处理工业污水的 MBR 解决方案。由于大量未经处理的污水排放，这座位于江苏省东部的城市常年为太湖蓝藻问题所困扰，而太湖是无锡的主要饮用水源之一。奥运会不仅为公司带来了巨大的商机，而且还是宣传企业形象的完美平台。为了增强公司的品牌价值，建立良好的客户关系，西门子将在奥运会期间启动以“体验 - 技术 (Experience. Technology)”为主题的推广活动，让客户与业务伙伴有机会以独特、有趣的方式来体验我们的奥运会相关工程。据负责组织此次活动的史明佳表示，我们将迎来来自伦敦与索契（未来几年的奥运会举办城市）的嘉宾，并将向他们就西门子为北京奥运会所做的贡献进行介绍。参与嘉宾将能够在新建的西门子中国总部大楼参观以工业、能源、医疗三大业务领域为主题的西门子论坛。在西门子北京论坛，还将举办两场关于西门子对北京 2008 年奥运会所做贡献以及西门子与气候变化的展览。除此之外，西门子还将主办“德国之家”与“冠军俱乐部”活动。史明佳表示：“在德国之家，我们将介绍西门子为 2008 年北京奥运会所做的贡献，与未来的业务伙伴共享我们所取得的成就。而在冠军俱乐部活动中，运动员、体育界人士、商界人士将齐聚一堂，我们还将邀请业务集团就各自在奥运会中所完成的工作交流经验。”

西门子致力于大都市的可持续发展以及为大型活动提供一体化基础设施解决方案，最大程度地利用其独特的业务组合，抓住更多商机，与中国共同实现繁荣。郝睿强表示：“作为中国经济发展的可信赖合作伙伴，西门子不仅帮助中国实现了奥林匹克梦想，而且还将继续为中国实现振兴之梦提供支持。”

Siemens China CFO Jill Lee experiencing BHS system at the T3 of BCIA
西门子中国首席财务官李锦霞体验首都国际机场 3 号航站楼的行李处理系统

Celebrating first local-made CRH3 roll-out
庆祝首列国产 CRH3 列车下线仪式



Water Cube ELV project delivery ceremony
水立方弱电项目交付仪式

Siemens Major Contributions

Siemens has provided innovative, environmental friendly and energy saving technologies and solutions to over 100 projects related to the Beijing Games. Here is a selection of the major projects.

西门子主要奥运项目

西门子为 100 多项北京奥运会相关工程提供了创新的环保和节能技术与解决方案，下面是其中的一些主要大型项目。

Beijing Capital International Airport (BCIA)

The Baggage Handling System (BHS) Project for the new Terminal 3 of the BCIA was the first major Siemens logistics project in China and the biggest one in the Asia-Pacific market.

- With the Siemens BHS, the BCIA's annual passenger handling capacity will double to 60 million.
- The system with a contract value of about Euro 170 million is comprised of a high-speed tray system and conveyors with a total length of over 68km, controlled and managed by an advanced and intelligent baggage IT and automation system.
- It can sort and transport up to 19,200 baggage items per hour.
- 330 check-in desks are linked into the baggage check-in system.
- International and domestic sections of T3 is connected by a 2.2km-long tunnel that is equipped with a high-speed tray system transporting baggage at a speed of 10 meter per second.
- It helps to speed up ground-handling related processes for arriving, departing and connecting passengers and enable the minimum connecting times. It takes less than 25 minutes to move baggage from one stationary aircraft to another.

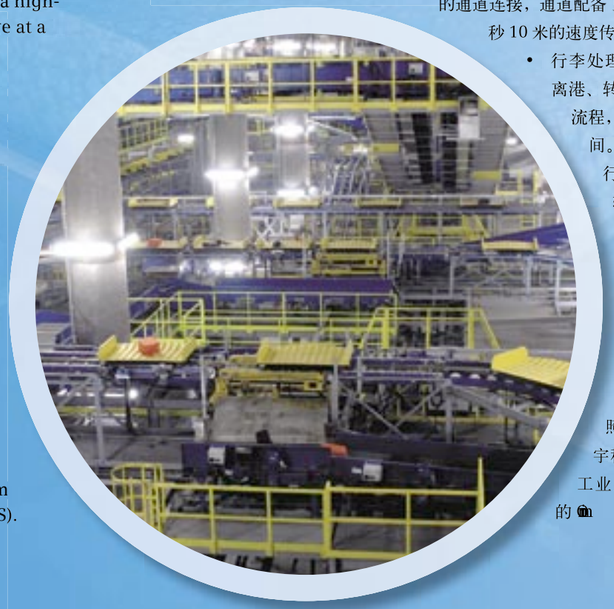
Siemens also provides T3 with power supply equipment from Power Transmission and Distribution (PTD), lighting for landscape, TWY (taxiway) and GTC (ground transportation center) from Osram, building automation system from Siemens Building Technologies and apron inset Omni directional guiding light system from Industrial Solutions and Services (I&S).

北京首都国际机场

北京首都国际机场新建的三号航站楼的行李处理系统是西门子在中国的首个大型物流工程，也是在亚太市场规模最大的物流工程。

- 西门子的行李处理系统使得首都国际机场的年旅客接能力增加一倍，达 6,000 万人次。
- 该工程的合同价值约为 1.7 亿欧元，由一个高速托盘系统与总长度超过 68 公里的输送带组成，由先进的智能行李 IT 与自动化系统进行控制与管理。
- 行李处理系统每小时可分拣和运输行李物品19,200件。
- 总共有 330 个值机柜台与行李处理系统相连。
- 三号航站楼的国际区域与国内区域由一条长达 2.2 公里的通道连接，通道配备了高速托盘系统，以每秒 10 米的速度传送行李。
- 行李处理系统有助于为抵港、离港、转机乘客加快地面处理流程，从而实现最短转机时间。通过行李处理系统将行李从一架停泊的飞机转移到另一架飞机所需的时间不超过 25 分钟。

西门子还为三号航站楼提供供电设备用于景观、滑行道及地面运输中心的欧司朗照明系统以及西门子楼宇科技的楼宇自控系统、工业系统及技术服务集团的 机坪内嵌式导航灯。



Beijing Metro Line 10 and Olympic Branch Line

Siemens Transportation Systems (TS) has equipped Beijings Metro Line 10 and Olympic Branch Line with the most up-to-date signaling and control technology.

- Siemens' scope of delivery includes the operation control center, the lineside facilities comprising the interlockings, the automatic train control and radio systems, and the on-board components.
- The lines are equipped with Trainguard MT, the most advanced modular automatic train control system, providing automatic driving of the trains with perfect passenger comfort and excellent stopping accuracy at platforms.
- It is the first time that moving block ATO (automation train operation) technology in combination with continuous bidirectional data transmission by WLAN radio are applied in Beijing's metro network.
- A dense headway of about 3 minutes can be achieved during the Olympic Games.
- Intermittent communication between the train and the line is installed as a fallback solution to increase the availability of the overall system and, at the same time, the maximum possible safety and flexibility for the future metro operator.

OTN communication network from Siemens Enterprise Network (SEN) and medium-voltage protection from PTD are also applied in the lines.

北京地铁 10 号线与奥运支线

西门子交通集团为北京地铁 10 号线与奥运支线配备了最先进的信号与控制技术。

- 西门子提供的设备包括运行控制中心，轨旁设备即联锁系统、列车自动控制与无线系统，以及车载设备。
- [illegible]最先进的模块化自动列车控制系统 Trainguard MT，能够实现列车的自动驾驶，确保最大的乘坐舒适性[illegible]台精准停车。
- 在这两条地铁线路上，实现了移动闭塞 ATO(自动列车运行) 技术与通过无线局域网信号进行的持续双向数据传递技术的结合，这在北京地铁系统中尚属首次。
- 在奥运会期间，列车运行间隔时间将缩短至 3 分钟左右。
- 以沿线电子装备与应答器为基础的车辆与轨道之间的间歇通信设备，作为备用方案安装在[illegible]0 号线和奥运支线上，以提高整个系统的有效性，并为今后的地铁运行[illegible]全性和灵活性。

在地铁 10 号线和奥运支线上，同时还采用了西门子企业通信部的开放传输网络以及输配电集团的中压保护装置。

High-Speed Train CRH3 for Beijing-Tianjin Passenger Line

Siemens Transportation Systems (TS) works with its Chinese partner company, Tangshan Locomotive & Rolling Stock Works, to build 60 high-speed CRH3 trains for China. The order content share allotted to Siemens is worth Euro 669 million, the largest single contract the company has ever won in China. The first five trains will run on the Beijing-Tianjin Passenger Line.

- The train has the operation speed of 300kmh and the design speed of 350kmh.
- The train has a total length of 200 meters and has seats for up to 601 passengers.
- It uses distributed traction technology. All the equipment is accommodated under the floor of the high-speed train so that it has approximately 25 per cent more seats for the same length of train.
- It has a uniform exterior design for all parts of the vehicle and also low infrastructure maintenance costs due to lower axle loads.

Siemens has also provided signaling, communication and power supply systems for the Beijing-Tianjin Dedicated Passenger Line.

京津客运专线的 CRH3 高速列车

西门子交通技术集团与其中方合作伙伴唐山轨道客车有限公司共同合作，负责为中国制造 60 辆 CRH3 高速列车，其中西门子的订单部分价值 6.69 亿欧元，是迄今为止西门子在中国获得的单笔订单。首批五列车用于京津客运专线。

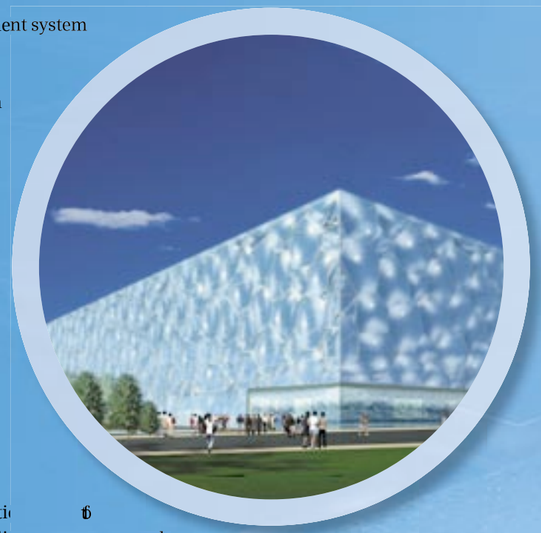
- 列车的运行时速为 300 公里，设计时速高达 350 公里。
- 列车总长 200 米，有多达 601 个座位。
- 列车采用了分布式牵引技术。所有设备都分布于列车底部，因此可比其他同等长度列车多容纳25% 的座位。
- 列车所有部件的设计保持一致，而且因轴重更低，基础设施的维修费用也随之降低。

除此之外，西门子还向京津客运专线提供了信号、通信与供电系统。

National Aquatics Center (Water Cube)

SBT supplies the integrated extra-low voltage (ELV) solutions to the National Aquatics Center, which is designed for hosting swimming, diving, synchronized swimming and water polo competitions of 2008 Beijing Games. The scope of the project includes design, installation, product, testing and commissioning and service. It has integrated 13 sub-systems which are

- Central integrated management system
- CATV system
- Building automation system
- Emergency broadcast system
- Fire alarm and fire linkage control system
- Intelligent emergency lighting control system
- Stadium public-address system
- Automation flag lifting system
- Security management
- Multi-language intelligent leading system
- Digital conference
- Integrated cabling system
- Lighting system



The ELV (under 50 volts) soluti t Siemens' Total Integrated Stadi h centralizes and integrates the monitoring, control and management of all electrical installations including medium voltage, low voltage and ELV throughout a stadium. It can minimize energy consumption and workload while improving reliability, comfort and flexibility.

国家游泳中心（水立方）

西门子楼宇科技集团负责为国家游泳中心提供一体化弱电 (ELV) 解决方案。国家游泳中心在 2008 年北京奥运会期间将举办游泳、跳水、花样游泳和水球比赛。该工程范围涉及设计、安装、生产和测试调试

Beixiaohe Wastewater Treatment Plant

Siemens Water Technologies under the I&S won the Beixiaohe project valued at RMB 140 million from the Beijing Drainage Group in 2006. Siemens supplies the most advanced Membrane Bio Reactor (MBR) technology for Beixiaohe Wastewater Treatment Plant, which will serve the 2008 Games by supplying water for landscaping and virescence.

- Siemens' scope of delivery includes process and detail design, mechanical equipment, electrical and automation systems, instrumentation, installation supervision and commissioning.
- The MBR technology integrates innovative membranes technology and conventional waste water treatment technology. The treated water will meet high quality standards and be directly pumped into scenic lakes.
- The plant's daily treatment capacity has been increased by 60,000 m^3. Of this, 10,000 m^3 / day of MBR treated water will be further processed by utilizing the RO (reverse osmosis) process.
- The project covers only 58,500 m^2. The MBR process utilizes 60% less space than conventional processes.

北小河污水处理厂

2006 年，西门子工业系统及技术服务集团旗下的水处理技术部成功地从北京城市排水集团赢得价值 1.4 亿元人民币的北小河工程订单。西门子为北小河污水处理厂提供最先进的膜生物反应 (MBR) 技术，北小河污水处理厂负责为 2008 年奥运会提供景观与绿化用水。

- 西门子的供货范围包括工艺及具体设计、机械设备、电气与自动化系统、仪表以及安装调试等服务。
- 膜生物反应技术结合了创新的膜技术与传统的污水处理技术，经处理的水将达到高品质标准，并直接用作景观用水。
- 北小河污水处理厂的日处理污水能力将增加 6 万立方米。其中，经由膜生物反应技术处理后的 1 万立方米水将进一步利用反渗透工艺进行处理。
- 该项目仅占地 58,000 平方米。膜生物反应技术比常规水处理方式节省用地 60%。

Designated OGB Hospitals

Siemens provides various innovative medical equipments and solutions to the following four designated OGB hospitals.

Beijing Union Medical College Hospital
- SOMATOM Definition
- MI Biograph 64 equipment

Beijing Jishuitan Hospital
- Axiom Artis U
- Orbic 3D
- Magnetom Espree equipment

Beijing PLA General Hospital
- Symbia T6
- Arcadis Orbic 3D

Beijing Xuanwu Hospital
- Axiom Iconos R200
- Mammomat Novation DR equipment

奥运会定点医院

西门子负责为以下四家奥运会定点医院提供各种创新医疗设备与解决方案。

北京协和医院
- 世界首台双源 CT
- 分子影像

北京积水潭医院
- 血管造影系统
- 具有术间 3D 成像功能的 C 臂系统
- 磁共振

中国人民解放军总医院
- 分子影像系统 SPECT-CT
- 具有术间 3D 成像功能的 C 臂系统

北京宣武医院
- X 线诊断系统
- 乳腺机

Tianjin Olympic Center

Siemens supplies world leading technology products and solutions to Tianjin Olympic Center, where part of the qualifying soccer matches of the Games will be held.

PTD has been awarded with the contract to provide medium-voltage switchgears, high-voltage Gas Insulated Switchgear and several power transformers for a number of substations to Tianjin Electric Power Corporation (TEPC). One of them is the Tianjin Olympic Center substation, which is specially designed to supply power to the Tianjin Olympic Center.

Siemens also provides:
- Osram HQI-PS 2000W
- Fire Alarm System (SBT)
- Private Branch Exchange (SEN)
- Siteco Lamps

天津奥林匹克中心

天津奥林匹克中心将在奥运会期间举办部分场次足球预选赛，西门子负责为其提供世界领先的产品与解决方案。

输配电集团成功获得天津电力公司的订单，负责为其多个变电站提供中压开关设备、高压气体绝缘开关柜和电力变压器，其中专为天津奥林匹克中心供电的天津奥林匹克中心变电站也包括在内。

此外，西门子还向其提供：
- 欧司朗 HQI-PS 2000W
- 消防报警系统 (西门子楼宇科技)
- 专用电话交换机 (西门子企业通信部)
- Siteco 灯具

Beijing Metro Line 10 and Olympic Branch Line Open

Siemens' control systems guarantee the smooth operation both lines

北京地铁 10 号线和奥运支线成功开通——西门子信号系统确保运营安全

The much anticipated Beijing Metro Line 10 and Olympic Branch Line equipped with Siemens advanced signaling systems were officially put into operation on July 19. A special launching ceremony was held with the attendance of many high-profile government officials including Beijing Party Secretary Liu Qi and Mayor Guo Jinlong, highlighting the importance of the new subway lines.

Train for Line 10 being tested
北京地铁 10 号线的列车调试工作

The Line 10 is the northeast half ring of the future new metro outer circle. With a total length of about 24 kilometer, the line has 22 stops, of which six are interchange stations. Linking the northwest and the southeast of the metropolitan area, the line plays a significant role in the city's whole metro system. Its importance will be even more prominent during the Olympic Games because it provides the only connection between the airport line and Olympic Branch Line, which has four stops that threading the main Olympic sites in the north of the city.

Siemens has provided the most advanced signaling system for both lines. They are equipped with Trainguard MT, the most advanced modular automatic train control (ATC) system from Siemens. It is the first time that the moving block ATC system in combination with continuous two-way data transmission by WLAN radio are applied in Beijing's metro network. The Trainguard MT technology provides automatic driving of the trains with perfect passenger comfort and excellent stopping accuracy at platforms.

The radio-based moving-block ATO (automatic train operation) is the highlight of Siemens technology. Unlike the old system which allows only one train travelling within certain area to ensure safety, it enables multiple trains to run in limited space without crashing onto each other. Thanks to Siemens' ATO, a dense headway of about three minutes can be achieved for the two lines. The expected safe, punctual and comfortable operation of the lines will help to ease the city's transport pressure, especially during the Games.

While riding on the first train of the Line 10 after the opening ceremony, the city government and transport authorities expressed gratitude to Siemens representatives for the company's outstanding contribution to the capital and the Olympic Games. They also appraised the most advanced communication-based train control from Siemens.

Aside from the innovative technology, Siemens' project team ensured the success of the project. Due to the delay in civil work, the timeframe for installation and testing of Siemens' system was reduced by six months. To make up for the lost time the 30-member team worked very hard. According to Project Manager Bi Weiwei, the team had to start working onsite in the tunnels when the construction was still ongoing. The working condition was so bad that the colleagues had to wear masks inside the dusty tunnels. It was also quite common that many of the team members worked very long hours – at least 10 hours a day. “Our team members with an average age under 30 are very dedicated to the project,” Bi Weiwei told Siemens Live. “These young people are full of energy. They really helped to push the project ahead and guarantee timely delivery of the project.”

It is worth mentioning that although the time for testing was cut short, the project team still completed the signal testing of a total of 40 trains before the official operation of the lines. Bi noted: “It was rather rare that the testing of 40 trains could be done in such a short time because normally signal testing takes quite a long time. Our project safeguards the smooth operation of the lines and contributes to the Olympic Games.”

The hard work of both local and the 200-strong German teams is well recognized by the senior management of the company. “I would like to express my deepest appreciation to Mr. Joerg Biesenack (Overall Project Manager), Mr. Bi Weiwei (Local Project Manager) and Mr. Song Bin (Site Manager), the whole team in China, Germany, Denmark and anybody who has supported for this outstanding performance in a very challenging environment,” said Joachim Kraege, General Manager of Motility China Rail Automation (RA).

This innovative and advanced automatic train control system from Siemens is also used on the metro lines of many other Chinese big cities, like Guangzhou and Nanjing. Its wide application builds solid foundation for Siemens' future mass transit business in Asia. Kraege said: “This success provides us an excellent platform for the future of the RA MT signaling business in China and also worldwide.”

备受关注的北京地铁 10 号线和奥运支线于 7 月 19 日正式开通运营。两条地铁线路均采用了西门子最先进的信号系统。包括北京市市委书记刘淇和市长郭金龙在内的众多政府高级官员参加了专门的通车仪式，显示了该项目的重要性。

刚刚投入运营的 10 号线属于未来新地铁外环的东北半环，总长约 24 公里，拥有 22 个车站，其中 6 个为换乘站。线路连接城市的西北和东南地区，将在整个城市地铁系统中发挥重要作用。特别在奥运期间，该线路的作用更为举足轻重，它是唯一一条与奥运支线和机场线相连的地铁线。奥运支线的四个车站将贯通城市北部的主要奥运场馆。

两条线路都配备了西门子最先进的模块化自动列车控制系统“Trainguard MT”。这是北京地铁网络首次使用移动闭塞 ATO(自动列车运行) 技术和 WLAN 无线连续式双向数据传输。“Trainguard MT”技术能实现列车自动驾驶，确保最大的乘坐舒适性，并在站台精确停车。

无线移动闭塞 ATO 是西门子技术的亮点。与以往的固定闭塞控制 (固定的区段只允许一辆列车运行以确保安全) 不同，移动闭塞 ATO 可以允许多辆列车行驶在同一区段，依靠计算机实时控制安全车距。西门子 ATO 的应用将确保这两条地铁线在奥运期间实现 3 分钟一班的密集发车间隔。新线路安全、准时和舒适的运营将缓解北京在奥运期间的交通压力。

开通仪式后，在乘坐发出的第一班列车上，北京市政府及交通部门的领导对公司代表表示感谢，称赞西门子为北京和奥运做出了杰出的贡献。他们对西门子先进的控制技术也极为赞赏。

除了创新的技术，西门子的项目组也以出色的工作确保了工程的顺利完成。由于土建工程的延误，西门子信号系统的安装和调试期被缩短了半年。为了追赶工期，30 人的项目组加班加点。据项目经理毕危危介绍，员工们在土建还没有完工时就进入隧道开始工作。地铁隧道内粉尘飞扬，必须戴防尘面具。在这样艰苦的工作环境下，每天大家经常在隧道里一干就十几个小时。“这些平均年龄不到 30 岁的项目组成员都极为敬业，”毕危危在接受《西门子动态》采访时说道，“这群年轻人很有冲劲。在他们的努力下，工程才得以如期完成。”

此外，值得一提的是尽管调试工期被缩短，项目组仍然在线路正式开通前调试出了 40 辆列车，以在运营初期投入服务。毕危危特别指出：“在如此短的时间内能够调试出 40 辆车是相对少见的，因为信号调试过程很漫长。我们的项目为地铁线路的顺利运行和奥运提供了保障。”

本地以及 200 人的德国项目组的出色工作得到了公司管理层的称赞。“对中国、德国和丹麦的全体项目团队，项目经理 Joerg Biesenack 先生，毕危危先生和宋斌先生，以及所有支持该项目的人员，我在此深表感谢，”西门子交通集团铁路自动化部总经理祈祖谦说道。

西门子此项创新和先进的列车自动控制系统技术还应用于广州和南京等中国其他大城市的地铁线路。该技术的广泛应用为西门子在亚洲未来公共交通市场的发展奠定了坚实的基础。祈祖谦表示：“此次项目的成功，为我们今后在中国以及全球铁路自动化信号控制业务的发展搭建了极佳的平台。”

Colleagues having working lunch onsite
同事们在工作现场就餐

Route map of Line10
地铁 10 号线路线图

Train running inside tunnel
列车在隧道中行驶