About ABB

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries.

About ABB China

- Supports the “Go West” initiative - with our single largest investment in Chongqing and six new offices opening in provinces like Gansu, Xinjiang and Inner Mongolia. A new office in Urumqi is currently being opened.
- Business volume of around $2.6 billion in 2004.
- Around 8,000 employees in China, including 200 in Hong Kong.
- Committed to helping China achieve its goal to be a well-off society in an all around way by 2020.
- Shipped its first steam boiler to China in 1907.
- More than 20 legal entities in China and Hong Kong, of which 17 are manufacturing joint ventures with local partners.
- Branch offices and dedicated engineering and service centers in more than 30 major cities across the country, including Hong Kong. Well-established channel partners for the sale and distribution of standard products and components.
ABB’s five-point strategy for China was presented in Beijing in October 2004 by Mr. Jürgen Dormann, chairman of the ABB Group, during a week-long visit of the ABB Group board of directors.

China is currently ABB’s third largest market. Of our $21 billion in orders worldwide, $2.6 billion came from China in 2004. Of our roughly 100,000 employees worldwide, around 8,000 are Chinese.

ABB’s strategy for profitable growth in China is based on the following five platforms:

1. **Organic growth**
   ABB has historically achieved double-digit growth rates in China and expects to grow 20 percent per year until at least 2008.

2. **New investments**
   ABB has invested more than $600 million in China and plans to invest at least $100 million in new product lines and factories between now and 2008. For example, the company recently opened a new power relays business in Xiamen.

3. **Cost migration**
   ABB is buying materials locally and using them to build complete product lines, rather than importing components from Europe as it has often done in the past. In addition to using China as a base for global sourcing, ABB is generating a competitive advantage for its customers.

4. **Research and development**
   ABB opened a new global corporate research center in Beijing as part of its global network of laboratories, to drive innovation levels higher and enable ABB to better meet the needs of customers in China, and around the world.

5. **Developing local talent**
   ABB will hire an additional 5,000 talented and well-educated employees in the run-up to 2008.

Jürgen Dormann
Chairman of the board of directors
German citizen, 65, joined the ABB Board of Directors in 1998 and became chairman in late 2001. He was CEO from September 2002 until December 31, 2004. He remains chairman of the board of directors.
Caution concerning forward-looking statement

The ABB China Annual Report 2004 includes forward-looking statements. The forward-looking statements are typically identified by words such as “believe”, “may”, “will”, “estimate”, “continue”, “anticipate”, “intend”, “expect”, and similar words are intended to identify forward-looking statements. We have based these forward-looking statements largely on current expectations and projections about future events, financial trends and economic conditions affecting our business. These forward-looking statements are subject to risks, uncertainties and assumptions, including among other things, the following: (i) the difficulty of forecasting future market and economic conditions; (ii) the effects of, and changes in, law, regulations, governmental policies, taxation, or accounting standards and practices; (iii) our ability to dispose of certain of our non-core businesses on terms and conditions acceptable to us; (iv) our ability to manage our liquidity and further reduce our indebtedness as planned; (v) the effects of competition in the product markets and geographic areas in which we operate; (vi) our ability to anticipate and react to technological change and evolving industry standards in the markets we operate; (vii) the timely development of new products, technologies, and services that are useful for our customers; (viii) unanticipated cyclical downturns in some of the industries that we serve; (ix) the risks inherent in large, long-term projects served by parts of our business; (x) the difficulties encountered in operating in emerging markets. Although we believe that the expectations reflected in any such forward-looking statements are based on reasonable assumptions, we can give no assurance that they will be achieved.

We undertake no obligation to update publicly or revise any forward-looking statements because of new information, future events or otherwise. In light of these risks and uncertainties, the forward-looking information, events and circumstances might not occur. Our actual results and performance could differ substantially from those anticipated in our forward-looking statements.
As many of you know, ABB has been a partner to China for many years, on projects both small and large, from the first steam boiler we shipped here in 1907, to our work together with Chinese partners on projects like Three Gorges.

In late February we for the first time reported our annual China results - $2.6 billion in orders in 2004, a surge of 62 percent over 2003. Our power business (page 7) grew more than 90 percent on the back of a large high-voltage direct current power link order, and our automation business (page 8) grew more than 40 percent.

In this report, you will learn more about our five-point plan for profitable growth in China, from new investments to how we do R&D, and our plan to hire 5,000 employees before 2008.

ABB is committed to helping China meet its goal to be a well-off society in an all-around way by 2020. We understand the challenges ahead. For example, that China’s unparalleled growth is threatened by energy shortages.

The government has properly addressed this challenge. Premier Wen Jiabao recently addressed five major focus areas, from the enforcement of energy saving measures to the creation of new power capacity.

This report demonstrates how our products, systems and services minimize losses in the transformation, transmission and distribution of electric power. They also help industries lower consumption, for example by using high efficiency motors and advanced drives.

You will also see ABB people at work and the great stories of shared success we have in China.

Enjoy.

Peter Leupp
Chairman and President,
ABB (China) Ltd.
Achievements in 2004

- Orders grew by 62 percent to $2.6 billion in 2004 from $1.6 billion in 2003.
- Launch of a new strategy for China, which targets year-on-year growth of 20 percent and revenues of $4 billion by 2008.
- Orders of our two divisions, Power Technologies and Automation Technologies, grew by 98 percent and 44 percent respectively. The surge in Power Technologies’ orders stems largely from the $390 million HVDC order booked in 2004.
- Several new factories and production lines either completed or under construction in 2004.
- Number of branch offices increased from 24 to 30.
- Announcement of new global corporate research center to be opened in Beijing in March 2005. The center will employ up to 100 researchers and conduct leading-edge research on power transmission and distribution applications, manufacturing technologies, and mechatronics and robotics.
- Around 1,000 new employees hired in 2004.
Management team

Tony Zeitoun
Chief Financial Officer

Bernd Muehe
Head of Power Technologies division
German citizen, 55, joined ABB in 1991. He is also head of business area power technology products and head of power technology medium voltage products.

Peter Leupp
Chairman and President

Anders Jonsson
Head of Automation Technologies division
Swedish citizen, 54, joined ABB in 1976. He is also head of Operational Excellence for the global Automation Technologies division.

Han Yu
Head of Human Resources
Chinese citizen, 46, joined ABB in 1993. He is head of human resources for ABB in China, including Hong Kong.
ABB is growing in China

ABB has enjoyed double-digit growth in China for the past five years. Each of our product areas has grown annually by at least 15 percent, many by 50 or 60 percent, some have more than doubled.

To sustain a growth target of 20 percent a year for the next four years, ABB will continue to invest in new facilities, develop new technologies, and launch new products. Our production capacity in China, which is already considerable, will double in the next four years.
Power Technologies

Performance in 2004
- Orders up 98 percent on 2003, a record for the fifth consecutive year
- Strong growth in all business units
- Market-leading positions consolidated

Major orders and contracts
- $390 million order from the State Grid Corporation of China to supply a 3,000 megawatt (MW) high voltage direct current (HVDC) link between the Three Gorges and Shanghai
- $60 million in contracts to supply 500 kV gas insulated switchgear and 12 sets of power transformers for the right-bank power plant of the Three Gorges
- $41 million in orders for switchgear, transformers and power distribution management systems for two petrochemical plants in Shanghai operated by CNOOC-Shell Petrochemical Company and Shanghai SECCO Petrochemical Company respectively
- $22 million order from a GE-led consortium to supply electrical balance of plant equipment for the Yixing pumped storage power station in Jiangsu province

Achievements, investments and cost migration
- The 3,000 MW, 940-kilometer HVDC link between the Three Gorges and Guangdong was completed by ABB in record time and handed over to the State Grid Corporation on June 6
- 90 percent of our products are now manufactured locally
- New protection relay factory opened in Xiamen on January 1, 2005
- Production capacity at our power transformer factories in Hefei, Chongqing and Zhongshan to increase by one-third in 2005
- ABB’s new vacuum casting technology for distribution transformers to be introduced in 2005

“We have the most complete product portfolio and local manufacturing capability in China. This enables us to deliver faster than any other company.”

Bernd Muehe
Head of ABB’s Power Technologies division, China

Targets for 2005
- Implementation of the five-point strategy to double revenues by 2008
- Growth rate of at least 20 percent to be maintained
- Delivery times to be reduced by at least 20 percent
Performance in 2004

- Orders up 44 percent on 2003, a record for the fifth year in a row
- Growth rates of between 35 and 60 percent in the industries we serve
- Business volume doubled over the past two years

Major orders and contracts

- Order from Asia Pulp and Paper for complete power and automation systems for a new paper machine for JiangSu Gold East mill in Dagang
- $24 million mining automation order from Huainan Mining Group for mine hoist equipment, including advanced drive systems and Extended Automation System 800xA, for eight of the group’s coal mines
- $20 million order from Jiangsu Shagang Group for drive systems and power supply equipment for a greenfield heavy plate rolling mill in Jiangsu province
- $9.2 million order from Dalian Diesel Engine Company for a powertrain assembly line for the production of diesel engines for FAW trucks
- Order from the Ministry of Railways for Azipod power propulsion systems for the two vessels of the new train ferry line between Yantai and Dalian

Achievements, investments and cost migration

- Investments in new factories and extensions that double production capacity for our drives business in Beijing and our motors and robotics businesses in Shanghai
- 10th anniversaries of our drives and low voltage equipment businesses in Beijing and Xiamen respectively
- Launch of our life sciences business in China
- Launch of Extended Automation System 800xA and advanced ACS 550 drives
- Employment of 200 engineers to substantially increase our engineering resources

Organic growth

Anders Jonsson
Head of ABB’s Automation Technologies division, China

Anders Jonsson

“There is a great deal we can do with existing ABB technology to reduce energy consumption and increase industrial efficiency.”
SUCCESS STORIES

ABB to link Three Gorges to Shanghai
ABB won a $390 million order from State Grid Corporation to supply the third high voltage direct current power transmission link between the Three Gorges power plant and Shanghai. The 3,000 megawatt, 1,100 kilometer link will provide reliable power to six million households and help develop China’s power network into one of the most advanced in the world.

Power technologies for Shanghai petrochemical plants
CNOOC-Shell Petrochemical Company and Shanghai SECCO Petrochemical Company have chosen ABB power technologies to increase plant capacity and improve productivity at their respective petrochemical complexes in Shanghai. The orders, worth more than $41 million, were placed in January 2004 and delivered within six months.

Advanced drives for Jiangsu Shagang steel mill
ABB’s rolling mill expertise and state-of-the-art drive systems were cited as reasons for Jiangsu Shagang’s choice of supplier for its greenfield heavy plate rolling mill at Zhangjiagang in Jiangsu province. ABB is to supply all the mill’s drive systems and power supply equipment to help Jiangsu Shagang increase production capacity for rolled steel to ten million tons a year. The order is valued at $20 million.

Chongqing factory exports power transformers
ABB’s power transformer factory at Chongqing has won its first export order from SP PowerAssets of Singapore. The factory will deliver five three-phase banks of 400/230/66 kV 167 MVA autotransformers for a 400 kV indoor substation in Singapore. ABB Chongqing Transformer Company is ABB’s largest single investment in China.

Unique ABB propulsion system for Dalian-Yantai ferries
ABB’s advanced Azipod propulsion system has been selected by the Ministry of Railways to power the two train ferries that will link the cities of Yantai and Dalian in Bohai Bay. The $277 million project will shorten the distance between the cities by 1,000 kilometers.

Engine assembly line for Dalian Diesel
Dalian Diesel Engine Company chose ABB to deliver a powertrain assembly line for the production of diesel engines for FAW heavy and medium trucks. The order came after ABB successfully completed the delivery of a similar assembly line to Dalian Diesel’s sister company, Wuxi Diesel Engine Company.
“In 1994 our low voltage factory employed 11 people and produced 1,000 circuit breaker poles a day. Today we employ 560 and produce 50,000 poles a day.”

Zhongdan Wang
President, ABB Low-Voltage Installation Materials Co., Ltd., Beijing

ABB Low Voltage Installation Materials was formed in 1994. Zhongdan Wang was appointed vice president of the company at its formation, and president in 2002.

“Our low-voltage business is growing by about 35 percent a year. We started modestly with only 11 employees and a production rate of 1,000 circuit breaker poles a day. In just ten years we’ve become the third biggest manufacturer of low-voltage products in China.”

ABB’s low-voltage factory produces miniature circuit breakers (MCBs), residual circuit breakers (RCBs), insulators and wiring accessories. Ms. Wang considers her biggest achievement to be winning the contract for the “One meter, one family” program in Beijing.

“In 1998 the Beijing government decided that each household should have its own electric meter. We developed and patented a ‘smart’ MCB for the meter and were appointed sole supplier for the entire program. The meter and the MCB are now installed in some two million homes in Beijing.”

Ms. Wang is one of the country’s most successful engineers. She represents China at the annual meetings of the International Energy Agency (IEA) and sits on the China National Low-Voltage Electrical Equipment Technique Committee. Her function in both organizations is to advise on low-voltage standards.
Sustainability is a key component of ABB’s business strategy

ABB provides utilities and industry with power and automation technologies that simultaneously improve performance and reduce environmental impact. This raises profitability and quality of life - economically, environmentally and socially.

Emphasizing health and safety

- Best health and safety result ever
- 14 manufacturing sites now certified to OHSAS 18001 standards
- 61.2 percent of our staff are employed at OHSAS 18001-certified sites
- Number of lost working days due to injuries down by 57 percent
- 2005 is the year of “Common sense in safety”

ABB China has worked hard in the past two years to implement the Group’s occupational health and safety management system, which is based on the internationally recognized OHSAS 18001 standard and the International Labour Organization Guidelines on Occupational Health and Safety Management Systems.

Five manufacturing facilities were awarded OHSAS 18001 certification in 2004, taking the total to 14 of a possible 19 sites. This raises the number of staff at certified sites to 4,595 or 61 percent of the total workforce. The remaining five sites, including company headquarters in Beijing, are scheduled to gain certification in 2005.

The number of working days lost through injury was reduced from 1,512 in 2003 to 865 in 2004. Although this was a significant improvement we are still not satisfied with our performance. There was one fatality at our power transformer factory in Hefei, and three serious injuries in a traffic-related accident at a project site.

Safety work teams were formed at our five transformer factories to perform site checks, coordinate safety documents and formalize safety procedures. Each site will be checked once a year to ensure full compliance with OHSAS 18001 regulations. Our team of full-time OHS officers now stands at 13, two operating at national level and 11 at company level.

In 2005 ABB will continue to emphasize the importance of health and safety. We are determined that no fatalities or serious injuries will occur. A safety campaign is already in full swing to promote through various channels safety awareness and knowledge to all 8,000 employees.
ABB has invested more than $600 million in China – in new factories and new product lines, in expanding production capacity to meet growth in demand, and in extending our presence into a nationwide network of branch offices to better serve our customers.

In the next four years ABB will invest another $100 million in China. We will start new companies and production facilities in areas in which we are strong globally but have yet to start operations in China. We will develop new technologies and launch new products specifically for the Chinese market. And we will improve manufacturing procedures and raise capacity to ensure that our factories cut delivery times while meeting growth in demand.
Distribution transformer factory
We relocated our distribution transformer factory in Shanghai and increased production capacity by 50 percent.

Protection relay factory
In 2004 we built a new protection relay factory in Xiamen and commenced production on January 1, 2005. The new factory handles marketing, sales support, engineering, production and service for ABB relays in China.

High voltage products
In the first half of 2005 we will open a new factory in Xiamen for the production of gas-insulated switchgear up to 145 kV and relocate our live tank breaker factory to a larger facility in Beijing to meet growing demand.

Power transformers
Investments at our three power transformer factories in Chongqing, Hefei and Zhongshan will increase production capacity by about one-third in 2005.

Robotics
We began to implement an extensive investment program in robotics, including the opening of a robotics manufacturing center in Shanghai in 2005 and the formation of a research and development unit to develop new products for customers in China and Asia.

Motors and electrical machines
On January 3, 2005 we opened a new factory in Shanghai for the manufacture of motors and electrical machines, doubling the capacity of the old facility.

10th anniversary
In September 2004 we celebrated the 10th anniversary of our drives business in Beijing. The factory will relocate to larger premises in spring 2005, doubling the capacity of the old facility.

Instrumentation factory
We extended the manufacturing portfolio of our instrumentation factory in Shanghai by starting a new product line for pressure transmitters in autumn 2004. A third new line for flow meters will open in spring 2005.

Six new branch offices
We improved our ability to better serve customers by opening six new branch offices in Xiamen, Ningbo, Hefei, Wuxi, Hohhot and Urumqi. ABB now has 30 branch offices throughout China.

Our growing Shanghai office
In May we moved our growing Shanghai office to the recently completed Raffles City building in the heart of the city’s commercial district.

Global R&D center
The ABB Group opened a global corporate research center in Beijing to develop new technologies and products in the fields of power transmission and distribution applications, manufacturing technologies, and mechatronics and robotics.
“In just ten years we have grown into one of the biggest and most respected suppliers of drives in China.”

Luping Qi  
Sales and marketing director  
ABB Beijing Drive Systems Co., Ltd.

ABB Beijing Drive Systems was founded in 1994. Luping Qi was there at the start, having joined ABB from a state-owned enterprise where he worked as an engineer.

“We started literally from scratch,” says Qi. “We had to establish effective sales channels and create a sales structure across the whole of China. After ten years we have created a strong and extensive network of 100 partners nationwide, 35 of whom are key partners.”

ABB Beijing Drive Systems generates double-digit growth every year. Qi attributes the company’s success to a combination of commitment to the customer and a reputation for delivering advanced and energy-efficient drive systems that are renowned worldwide for their reliability.

“Our growth record in China is second to none,” says Qi. “In 2005 we’re relocating to new premises to double production capacity to meet increasing demand.

“That’s quite an achievement,” concludes Qi, one that he has played no small part in bringing about.
Energy efficiency is a priority in China. The world’s fastest growing economy is balancing a chronic shortage of electric power with a demand from the government that consumers and industry use power more sparingly. There is also an environmental cost to rapid growth—seven of the world’s most polluted cities are here in China, and energy-related CO₂ emissions are escalating at unprecedented levels.

Energy efficiency is the key to sustainable growth.

Below are a few ABB innovations that are helping China achieve its objectives of energy efficiency and environmental sustainability.

**Power Technologies**

**HVDC (high-voltage direct current)** — a cost-effective and environmentally friendly technology for the bulk transmission of electricity over long distances and with low energy losses. ABB has already supplied China’s two HVDC links from the Three Gorges to Guangdong and Changzhou, and was chosen in June 2004 to supply the third link to Shanghai. ABB pioneered HVDC in 1954.

**FACTS (flexible AC transmission systems)** — a group of technologies that radically increase the capacity of the transmission network while improving voltage stability and grid reliability. All three FACTS technologies—series compensation, static var compensation (SVC) and SVC Light—are ABB innovations. Two recent ABB FACTS solutions increased the capacity of existing transmission lines in Saudi Arabia and India by 80 percent and 40 percent respectively.

**GIS (gas-insulated switchgear)** — ABB launched the world’s first GIS in 1965, slashing the size of substations by 90 percent and enabling high voltages to be delivered via underground cables to indoor substations in densely populated locations, thereby reducing environmental impact to the minimum. ABB has supplied 274 500 kV breaker bays to 23 key projects in China.

ABB is the largest supplier of HVDC, FACTS, GIS in both China and the world.

**Automation Technologies**

**Motors, drives and electrical machines** — Motors and drives for mechanical equipment account for about 65% of the electrical energy used by industry. ABB’s high-efficiency motors, AC drives and devices like soft starters reduce and regulate power consumption and prevent wastage and unnecessary emissions. The installed base of ABB AC drives reduces the world’s annual consumption of electricity by 81,000 GWh, equivalent to 68 million tons of CO₂ emissions a year.

In China, ABB’s motors and drives have saved roughly 10,000 GWh for customers in the past ten years.

**Plant optimization** — The unique combination of leadership in products and systems and expertise in industrial processes is enabling ABB to develop plant optimization strategies for industrial customers. For instance, an energy management tool for cement kiln optimization uses real-time data to compute the lowest-cost fuel mix and simultaneously satisfy business and process variables like heat balance, excess oxygen level, clinker chemistry, volatile concentration, emission limits, fuel consumption, and contractual conditions.

**Marine propulsion systems** — The world’s first passenger vessels equipped with ABB’s CRP Azipod propulsion system—owned and operated by Shin-Nihonkai of Japan—consume 20 percent less fuel than comparable vessels without Azipod. CRP Azipod will power the two vessels in the new train ferry line between Yantai and Dalian.
Cost migration

**ABB is focusing on China**

ABB is moving more and more of its activities to China.

We are opening new factories, transferring technologies and skills from Europe and North America, buying materials and components from local suppliers, and relocating the engineering and production of high-end technologies like industrial robots and relays for power grid protection.

These measures bring us closer to our customers, reduce our costs, shorten our delivery times, develop skills and competence in China, and enable us to make a long-lasting and valuable contribution to China’s development.
ABB is transferring technology to China

Each of these investments involves the transfer of know-how from ABB centers of excellence in Europe. For instance, ABB has been manufacturing gas-insulated switchgear (GIS) up to 110 kV in Xiamen since 1999. The new factory - to be opened in 2005 - will extend the GIS range to 145 kV thanks to knowledge transferred from ABB Germany.

A second example is robotics. ABB has the largest installed base of robots in the world. Historically, all ABB robots are manufactured in Sweden, with the exception of paint robots, which are made in Norway. The new robotics manufacturing center in Shanghai - opened in early 2005 - will be only the third ABB robot production center worldwide.

ABB is buying materials and components from local suppliers

Each ABB company has a cost migration strategy to ensure that parts, components, materials and products are bought or manufactured in the right place. An increasing number of those materials and parts – up to 90 percent for some products – are now sourced in China.

Our motors business, for instance – ABB is the second largest foreign manufacturer in China - sources most of its materials in China. This has enabled us to cut costs by around 25 percent and become a leading player in a fragmented market dominated by domestic brands. The same cost-cutting achievements have been made by our drives and transformer businesses, both of which are market leaders in China.

ABB is giving customers a competitive edge

ABB's strategy of transferring technology and know-how to China and sourcing materials and components with local suppliers

- Reduces our production costs
- Shortens our already rapid delivery times
- Brings us closer to our customers and better able to meet their needs

ABB centers of excellence in China

ABB's global center of excellence for processing lines and tube mills is located in Shanghai. ABB regional centers of excellence for cold rolling mills, cranes, and pulp and paper electrification are also based in China.
“I believe that much of our success is due to the ABB spirit and the way we help one another as colleagues.”

Jeffrey-Jiong Zhou
Sales manager, ABB Engineering (Shanghai) Ltd.

Zhou started his career as a sales engineer at ABB in 1998. He recalls winning his first order with pride, an order that set him on the road to becoming a successful sales manager.

“I landed a big project worth more than $1 million. I spent a whole year working on the order, from initial inquiry to technical proposal and bid preparation, all the way to revising and signing the final contract.”

That order, and the help Zhou received from his colleagues, helped him progress to the experienced and valued sales manager he is today.

“ABB opened a successful career door for me. My growth as a salesman would not have been possible without the support I received from my manager and colleagues. It is this spirit - of helping and learning from one’s colleagues - that enables us to move forward as a team, as individuals and as a company.”
Made in ABB the hallmark of quality

“Made in ABB” is an assurance that wherever an ABB product is engineered and manufactured - be it Vasteras, Sweden, Baden, Switzerland or Beijing, China - it meets the same high standards of quality that ABB is renowned for worldwide.

Our factories in China are among the most modern in the world. They meet international and local standards like ISO 9001, ISO 14001, OHSAS 18001 and CCC. And the products they engineer and manufacture measure up to a unique set of “Made in ABB” criteria.

ABB is the market and technology leader in most product and system segments in the power and automation industries.

Complete portfolios in power and automation products, systems and solutions
From electrical balance of plant to HVDC, FACTS, substations, transformers, switchgear, lines and cables, utility automation systems, and energy management systems for power grids, distribution networks and energy trading systems.

Deliver more power/create more product at lower cost
Delivered faster than anyone else. E.g., rapid delivery of HVDC links.

Safe and environmentally friendly
ABB China’s new pole-mounted eco-transformer, filled with biodegradable silicon oil and equipped with bird and snake protectors, and high- and low-voltage surge arrestors. Easy to engineer, install, operate and maintain.

Market and technology leadership in power and automation technologies
Functional integration and fewer parts
eVM1 - integrates measurement, protection and control functions in a single-device circuit breaker for medium-voltage applications.

ACS 800 low-voltage drives are up to 8 times smaller than competing drives.

Reliable and robust
ABB invests roughly five percent of revenues, around $1 billion in 2004, in R&D and order-related development. The research is focused on ten corporate research programs and carried out at our global R&D centers in Europe, the U.S. and Asia.

In March 2005 we underlined our commitment to China by opening a global corporate research center in Beijing, striking partnerships with local universities and research institutes. We also awarded five scholarships to Chinese researchers.

ABB is innovating in China
Global corporate research center
On March 30, 2005 we opened a new global R&D center in Beijing

The center will drive innovation and develop new technologies in power and automation for our global customers.

It complements the existing research and product development programs of our five business areas and 17 joint ventures in China, each of which continues to develop products specifically for the Chinese market.

The R&D center will focus on three research programs:

Power transmission and distribution applications
ABB Group projects include maximizing the use of installed grids and ensuring secure operation at maximum load, monitoring transmission flows in large grids and minimizing transmission losses, coupling various power generation sources to the transmission grid, and providing environmentally friendly transmission and distribution. R&D efforts in Beijing will concentrate on increasing the HVDC voltage transmission level to 800 kV (the limit currently stands at 600 kV) and on interconnecting regional grids with different operational parameters.

Manufacturing technologies
Speed of delivery is an ABB competitive differentiator. By developing methods and technologies to improve manufacturing processes and boost productivity at our factories we are able to pass these benefits on to our customers. Significant improvements have already been achieved in processes like lead times (cut from 110 to 14 days in Poland), inventories (reduced by 30 percent in Switzerland), cycle times (cut by 50 percent in the U.S.), and order handling (reduced from days to minutes in the Czech Republic). We shall be looking at the entire supply chain - from receiving orders to final delivery - with the intent of streamlining and optimizing production at our factories in China even more.

Mechatronics and robot applications
Research and development will be carried out at the robotics manufacturing center, which opens in 2005 in Shanghai. ABB global research programs include developing new concepts for mechanical structures, simplifying robot programming, and intensifying our focus on knowledge-based application programs. Research resources in Shanghai will focus on developing a low-cost robot controller for the Chinese and Asian markets.
Zheng Yong joined ABB in July 2004 as a management trainee. He has a degree in industrial engineering from Tsinghua University in Beijing, and a master’s degree in production engineering from Tsinghua University and Aachen University of Technology in Germany. Zheng Yong is 25 and comes from Beihai in Guangxi province.

“I chose ABB for two reasons. I wanted to join a leading industrial company, and I was attracted by the scope of ABB’s China Trainee Management Program.”

Zheng Yong is currently completing the first of the program’s three phases at ABB Beijing Drive Systems where he has helped to define, plan and implement a number of projects to improve the factory’s production process.

“The projects led to tangible improvements in the way we handle materials and orders. I feel I can take some of the credit for those improvements, and that gives me a lot of satisfaction.”

Zheng Yong will spend the second phase of the trainee program in Shanghai, where he will join a large robotics project in ABB’s rapidly expanding flexible automation business.

“I’m looking forward to moving to Shanghai,” he says. “For me it will be a new company, a new industry and a new city.”
ABB is helping impoverished students finance their university education

ABB has donated RMB 830,000 (US$100,000) to help students from impoverished families finance their college education.

The money has been given to the New Great Wall Project of the China Foundation for Poverty Alleviation, China’s non-governmental anti-poverty organization. The foundation started the project in 2002 to help students from poor backgrounds finance their university studies. China has 13 million university students, of whom almost a third are living in conditions of need or extreme poverty.

In the first two years the project has helped more than 4,000 students, each of whom receives RMB 2,000 a year for the duration of their studies. The money is used for tuition fees, books, food and lodging.

ABB’s donation will help support 400 electrical engineering students during the course of their four-year university studies. Students will be selected by the foundation.

The donation comes from the proceeds of an ABB Group photography competition. Entrants were asked to submit a photo that illustrates one or all of ABB’s three business principles - Responsibility, Respect, Determination.
ABB is hiring more employees

ABB has hired between 500 and 1,000 new employees every year for the past six years. In 2004 we grew by around 1,000 employees, and between now and the end of 2008 we intend to increase our numbers by another 5,000. Ninety-nine percent of our employees are Chinese.
Between now and 2008, **ABB will recruit 5,000 Chinese employees**

We are looking for the best and brightest to help us make the leap from a good company to a great company.

At year's end ABB had around 8,000 employees in China, some 1,000 more than at the end of 2003.

In the next four years we will hire an additional 5,000, half of whom will be engineers. Achieving this target will be a challenge. We have to find them, train them and make sure we retain them. How will we do that?

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**Attracting talent - the ABB brand**

ABB has one of the strongest brands in China – perceived by customers and prospective employees alike as a stable and successful company, and as the market and technology leader in its chosen fields.

We see this clearly in our recruitment campaigns at universities where our presentations regularly attract hundreds of visitors from the engineering and business management faculties. In 2005 we will intensify these campaigns, visiting universities all over the country to promote the ABB brand and attract the best talent. We will also extend our already considerable efforts to attract individuals with business experience and leadership skills.

**Training and retaining our staff**

- **making good people even better**

ABB offers employees a range of benefits and incentives from a competitive salary to performance-related incentives and the extensive provision of training to enhance skills and competencies.

Our target is to provide each employee with 40 hours of training a year. In 2004 we introduced a new personnel assessment system to measure the performance of each employee and tailor a training program to the needs of each individual. In addition we sent some 90 staff on a diploma program in management at the China-Europe International Business School in Shanghai, provided 200 managerial staff with advanced training in English, and admitted many graduates to an 18-month advanced management trainee program.

**Employees vote ABB one of China’s best employers**

Results of a survey released in November 2003 ranked ABB one of the top ten employers in China. The employee opinion survey – conducted jointly by Watson Wyatt Worldwide, Fortune China, and Sohu – covered a variety of issues like employees’ commitment, job satisfaction, compensation and benefits, leadership and management effectiveness, and working environment. Sixty-five companies took part in the survey. ABB has achieved top-ten rankings in several other countries in 2004 including Finland, Norway, Sweden and Switzerland.

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**ABB three guiding business principles**

- **Responsibility**
- **Respect**
- **Determination**
Mr. Gu has worked as a winder in Chongqing for 15 years. Born and raised nearby, he started work with ABB’s joint venture partner in 1989.

Gu Zhimin  Worker in the winding workshop  ABB Chongqing Transformer Co., Ltd. (established 1998)

“From a worker’s perspective, I’m very proud of the great development of the company,” he says after careful consideration. “The workshop is much tidier today than it was in the old days and where before we had normal quality today we have ABB standard quality, with much better equipment. Before we had leakage from our transformers, today we do not; where before we had horizontal winding machines, today we have vertical machines, which are much better.”

Mr. Gu, a tall, strong worker who makes a very professional appearance in his crisp, white ABB coveralls, is careful to add some constructive criticism.

“Health and safety is much better too. We now have hard hats and yearly training. This is good. But I still feel a gap exists between production capacity and our design system. Every day we have so many orders to keep up with, such high production targets, but only limited capacity.”

Mr. Gu says, from a worker’s perspective, the situation can be improved. “In the past we have had many policies, and policies that change often. What we would like to see is more consistently enforced policies and more internal information about ABB in China, and about ABB in Chongqing, so we know what our goals are and how the company is doing.”
Our Web site serves every stakeholder group, from customers and suppliers to NGOs, journalists, investors, potential employees and academics.

About ABB
This section offers a comprehensive overview of ABB products, services and solutions, and outlines the ABB Group strategy, our organizational structure, business principles, corporate governance charter and 120-year history.

Products and services
Products, systems and services are the essence of ABB’s business. In this section, you will find our product guide - a list of the products, systems and services we have to offer. Here you will also find our service guide and contact list, with detailed information regarding the upkeep of power plants and factories, a section for suppliers and sales contacts to help you get whatever you need, wherever you may be.

Sustainability
ABB follows the Sustainability Reporting Guidelines first published in mid-2000 by the Global Reporting Initiative (GRI) - an international, multi-stakeholder undertaking supported by the United Nations. GRI guidelines are based on a “triple bottom line” report of ABB’s economic, environmental and social performance. The section has links to ABB Sustainability Reports, from 1998 to the present.

News center
This section is for the media, and includes all press releases - past and present, news about our products, systems and services, speeches and presentations, downloadable pictures of our people and technology, and an up-to-date library of ABB reports, publications, videos, and a calendar of important ABB dates.

Technology
ABB’s business is based on technology, and we run two global research and development labs and nine research programs focused on power and automation. You can watch streaming video interviews and listen to our experts explain strategy and the future direction of R&D. Here you will also find links to electronic versions of ABB research papers, periodicals, technology reviews and reports.

Careers
The careers section on ABB’s Web site offers a wealth of information for students, recruits or professionals looking for new challenges. You will find the most recent job postings at ABB and background information on the company. You can also register your CV and apply for a job with ABB online. For students and interns, ABB offers a variety of international assignments for trainees.
Our presence in China

Power Technology
ABB Bailey Beijing Controls Co., Ltd.
Universal Plaza, 10 Juxianqiao Lu, Chaoyang District, Beijing 100016 P. R. China
Tel: 010 8456 6688
Fax: 010 6432 3324

ABB High Voltage Switchgear Co., Ltd.
Beijing
No. 7, Shi Lu, Zhongnan Nan Li Nanding Lu, Fengtai District, Beijing 100075 P. R. China
Tel: 010 6764 0055
Fax: 010 6766 3121

ABB Huadian High Voltage Switchgear (Xiamen) Co., Ltd.
ABB Industrial Park,
Torch Hi-Tech Industrial Development Zone,
Xiao Dong Shan,
Xiamen S.E.Z Fujian, 361006 P. R. China
Tel: 0592 571 0330
Fax: 0592 571 0331

ABB Transmission and Distribution Automation Equipment (Xiamen) Co., Ltd.
ABB Industrial Park,
Torch Hi-Tech Industrial Development Zone,
Xiao Dong Shan,
Xiamen S.E.Z Fujian, 361006 P. R. China
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Fax: 0592 571 8598

ABB Distribution Transformer (Hefei) Limited
7 He Zuo Hua Nan Road,
Hefei, Anhui 230022 P. R. China
Tel: 0551 229 1188
Fax: 0551 513 6600

ABB Hefei Transformer Co., Ltd.
7 He Zuo Hua South Road,
Hefei, Anhui 230022 P. R. China
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Fax: 0551 229 1191

ABB Chongqing Transformer Co., Ltd.
No. 1, Huayuan Nanctou, Yuejiangsi, Chongqing, 400052 P. R. China
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Fax: 023 6509 3310

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2300 ShenJiang Road,
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ABB Industrial Park, Torch Hi-Tech Industrial Development Zone, Xiao Dong Shan
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Tel: 0760 339 2288
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ABB Xi’an Power Capacitor Company Ltd.
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Xi’an, Shaanxi 710082 P. R. China
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