

Focusing on the future

**SIEMENS**

Corporate Responsibility Report 2003



**As a GLOBAL NETWORK OF INNOVATION**, we bring a wealth of experience, competency and innovative strength to bear in order to advance humankind. We seek to unite our interest as a company in achieving sustained success and profitability with the wish to create tangible and lasting benefits for our customers and to put our technological leadership in the service of society and the environment.



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Dear reader,

The difficult global economic environment has affected our markets, leading to painful cuts in parts of our company and making a reduction in our headcount necessary. At times like these, questions of corporate responsibility tend to be raised with greater frequency than usual, and the answers we give are viewed more critically.

Even so, there are a number of constants in our corporate culture that are timeless. First, we remain true to our principle of not choosing short-term courses of action that could cost us our future. This is why, in spite of the hardships involved, we are unable to maintain surplus capacity when all reliable assessments of future market growth indicate no promise of a return to high demand.

Second, future-focused action calls for continuous investment in research and development, in new products and solutions, and in improved processes – one issue that we address in detail in this report. Our company generates more than 70 percent of its sales with products that are less than five years old. If we are to continue to be successful in our markets five years from now and beyond, it is essential that we maintain a high level of research and development activity. To do less would be irresponsible as it could undermine the basis for our company's success and put jobs at risk.

Third, crucial to our perception of ourselves as a company is our ability to balance business success and benefits for society – benefits from the contributions made by our technologies and innovations toward meeting the world's challenges; benefits through education, training, knowledge transfer, and partnerships with schools and universities in many of the world's countries; and benefits through our citizenship activities in the social and cultural spheres.

This is what this report is about. At the end of the day, it is also an invitation to you, the reader, to engage in a dialogue with us.

It is our principle not to choose short-term courses of action that could cost us our future.



Dr. Heinrich v. Pierer

President and Chief Executive Officer, Siemens AG



## A Siemens technology timeline

1847  
The invention of the electric pointer telegraph by Werner von Siemens lays the foundations for modern telecommunications and a global company – Siemens.



1866  
With the discovery of the dynamo-electric principle and construction of the first electric dynamo, Werner von Siemens paves the way for large-scale use of electric power.



1879  
At the Berlin Trade Fair, Siemens presents the first electric railway to draw power through the rails. In 1889, the company patents the bow-type current collector.



1896  
The predecessor of today's Medical Solutions Group develops an X-ray tube with an adjustable vacuum – a crucial capability in systems in continuous use.



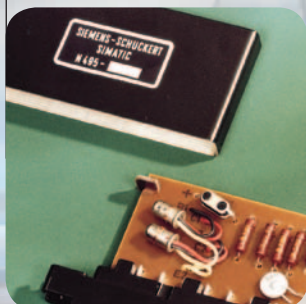
Siemens can look back on a history spanning 157 years – a history rich in innovation during which the company has never ceased to demonstrate its spirit of creative invention. Since its beginnings as a small workshop in Berlin, Siemens has grown into a GLOBAL NETWORK OF INNOVATION which today holds some 45,000 patents worldwide.

From the very beginning, Siemens concentrated primarily on electrical engineering. Many of those things that we now take for granted – in the home, on the factory floor, in hospitals, in communications, and in transportation – were developed by Siemens and today improve and enhance many people's lives. In spite of the changing circumstances and countless new challenges over the decades, Siemens has remained successful.

1953  
The manufacture of high-purity silicon marks the beginning of modern computer technology.



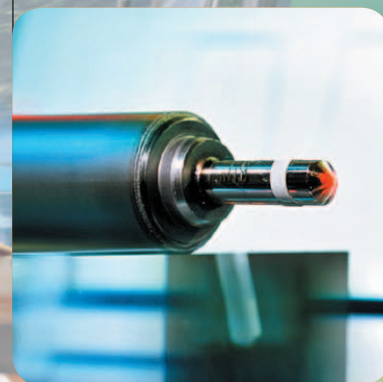
1959  
Siemens develops Simatic, the world's first electronic industrial automation system.



1980  
Communication systems go digital. Siemens presents its first EWSD digital switching system, which later becomes popular the world over.



2000  
Piezoelectric valves developed by Siemens for the automotive sector control the combustion process in engines with far greater precision than electromagnetic valves, achieving a substantial reduction in fuel consumption and emissions.



Today, Siemens has nearly 50,000 people working in research and development at more than 100 company locations in roughly 30 countries, creating innovations that will shape our world tomorrow. Many of these innovations are the outcome of strategic, scenario-based product planning, our Pictures of the Future.



Our challenge: To shape the world of tomorrow





Siemens is committed to achieving valuable technological advances and working toward a better future. In comprehensive projections of possible scenarios – our Pictures of the Future – we show how the world might look in, say, 20 years' time. These scenarios not only show what might realistically be possible, they also outline specific courses of action – to safeguard our mobility, to ensure a clean, resource-conserving energy supply, to solve growing communication needs, and to provide the world's population with better health care.



On pages 58 and 59 we highlight some of our solutions for tomorrow's world.



Our motivation: To work together to raise company value





With our six business areas – Information and Communications, Automation and Control, Power, Transportation, Medical, and Lighting – we are in a strong position to leverage synergies to create value and to develop cross-disciplinary infrastructure solutions. Our Pictures of the Future play a valuable role here, enabling us to concentrate on technologies with a high growth potential and breadth of impact. There are two important prerequisites for capitalizing successfully on opportunities: A committed workforce and close cooperation with our customers and partners.



**Safeguarding our profitability** over the long term is one of management's most important objectives – not as an end in itself, but for the benefit of our shareholders, investors, employees and other stakeholders. At Siemens, we have more than 150 years of experience in keeping the company on a firm course, even during economically and politically turbulent periods in various regions around the world. One thing that has helped us to succeed from the very beginning is a corporate culture that focuses our activities on the longer term.

For a company to achieve lasting success, its workforce and managers have to communicate effectively to ensure a common perception of key objectives, and must work together to attain them. To this end we have set up three company-wide programs. The first of these has leadership in innovation as its goal. For a technology company like Siemens, this is fundamental to our business success. The second of these programs centers on customer focus. Close customer relationships, built on mutual trust, create a valuable competitive advantage. Our third program targets our competitive strength in the global business arena – something we can safeguard by leveraging the potential available in our worldwide presence.

Achieving these goals would be impossible without a highly committed and focused workforce. We therefore make every effort to attract qualified and motivated people to work for us, and to retain and support them.



## We build our business success on innovation

Our strength as an innovator is a key success driver. Innovation always forms the initial link in any value chain. So having an effective innovation management system in place is a crucial prerequisite if we are to continue offering customers quality products and solutions that are truly effective in meeting their needs. Each year we spend more than €5 billion on research and development programs.

### Identifying promising future trends

As a GLOBAL NETWORK OF INNOVATION, our goal is to achieve a sustained increase in company value – primarily, through our company-wide Innovation program, with its two separate initiatives, Trendsetting Technologies and Platform Strategies. (For further information on the Siemens Management System's company programs, see page 62.) As innovation cycles continue to accelerate, we can only remain successful if we accurately identify promising future trends well in advance and then shape them by achieving technology leadership – in part, through a globally oriented patenting strategy. With our Pictures of the Future, we have developed a methodology that enables us to achieve a clear perception of the best way forward. These Pictures of the Future combine our Groups' road maps – in other words, their projections for the development of technologies and product families – with a visionary ap-



Tomorrow's portable displays will be flatter and larger. They will also be separable from terminal equipment.

### A RETURN ON INVENTION

In fiscal 2002, innovative solutions emerging from our research and development units led to the registration of more than 7,000 inventions, of which 4,600 were submitted for patents. According to international statistics, Siemens is a world-leading patent applicant. We rank first in Germany and second in Europe; in the U.S. market we're among the top ten. With more than 45,000 patents worldwide, we are a prodigious innovator.

One prerequisite for a strong competitive position in the area of patents – other than our employees' inventiveness and ingenuity – is precise strategic management of our patent portfolio. This involves focusing on trendsetting technologies, closing gaps in our portfolio, optimizing our portfolio at the regional level, and exchanging and awarding licenses.

[www.siemens.com/intellectual\\_property](http://www.siemens.com/intellectual_property)

## A MULTIPURPOSE SYSTEM

Optimizing the numerous examinations conducted each day in hospitals and doctors' offices calls for user-friendly medical systems, with software to match. Working closely with our experts in user interface design at Corporate Technology, Siemens Medical Solutions created our award-winning *syngo*® software platform, which provides users with a unified front end on medical imaging equipment of all kinds, including magnetic resonance, computed tomography, fluoroscopy, angiography and ultrasound, as well as nuclear medicine,

and medical patient monitoring systems. With *syngo*®, healthcare professionals can control the imaging process and then view, edit, and archive the images obtained. Previously, clinicians had to go through the laborious process of running separate programs, but with *syngo*® they can work with a user interface based on a file-card metaphor that enables them to proceed rapidly from one step to the next and even switch between patients if need be. Rather than listing parameters and options in overwhelming detail, *syngo*® lets medi-

cal personnel work intuitively with icons that enable them to complete the various technical stages in examination and diagnostic assessment with ease. With the right technology, processes in hospitals can be optimized further. Soarian is a new workflow system designed to manage the data transactions involved in health care. It can even integrate *syngo*® workstations. By coordinating every stage in the process of diagnosis, therapy and patient care, Soarian helps to ensure that the quality of medical treatment continues to improve.

proach that enables us to systematically create detailed and comprehensive scenarios of how the future might look. Using a combination of two techniques – extrapolation and retropolation – we can identify those technologies that exhibit the potential to achieve high growth and to have a broad impact on our product range. They also enable us to anticipate future customer expectations and business opportunities and to prepare accordingly.

Our Trendsetting Technologies initiative sets out to establish new technologies, *de facto* standards, and baseline product features in the marketplace. Our goal is to consolidate and extend our strong position in the technology arena in the long term, not just in key and cutting-edge technologies capable of securing us a solid competitive lead now and in the future, but also in those technologies with the potential to revolutionize tomorrow's markets. To this end, we align our activities in research and development closely with our business strategy, and we develop key patents that give us the latitude to act freely and to have a strong say in international standardization processes.

### Shared development initiatives, shared successes

Platform Strategies is our second major initiative, parallel to Trendsetting Technologies. Its goal is to allow us to develop and use platforms for multiple products, systems and processes – not just within individual operating Groups, but also in a cross-Group context – wherever technologically possible and economically viable. One prominent example in the company is *syngo*®, an IT system created by Siemens Medical Solutions (see sidebar). Now a mature platform, *syngo*® has become an important selling point for our customers.

#### SIEMENS RESEARCH AND DEVELOPMENT:

[www.siemens.com/research\\_and\\_development](http://www.siemens.com/research_and_development)

[www.siemens.com/technical\\_highlights](http://www.siemens.com/technical_highlights)



“I will not sell the future for a quick profit.” . . . . .

Werner von Siemens

Our Automation and Drives Group developed a drives platform, which is now also used by Siemens Building Technologies and by Siemens Dematic. Based on universal software and hardware, it is designed specifically to support all kinds of industrial tasks and applications that require drive systems. One outstanding feature of this platform is that it uses the same simple engineering in everything from basic pump drives to the complex drive units used for sophisticated motion control tasks in packaging systems.

The benefits for Siemens are obvious: Aside from saving on development costs, shared platforms generally shorten development times by avoiding duplicate work, and they promote synergies. At the same time, any products and systems that we develop on unified platforms offer our customers significant advantages in that they are largely similar to operate, afford a greater degree of flexibility, are more interchangeable, and enable better after-sales service.

In our perception, any innovations we produce only count as a success if they help our customers to achieve greater profitability. To ensure that the products, solutions and services that we develop are on target, we work closely with customers to identify their needs and requirements (see sidebar).

## CO-INNOVATION WITH CUSTOMERS

To deal with a highly specific problem, Siemens worked with DaimlerChrysler to develop a positioning system for locating cordless phones: Service engineers at DaimlerChrysler's Sindelfingen plant in Germany need to know exactly where a fault – say, a conveyor belt failure – has occurred in order to provide rapid technical support. Given the sheer scale of the facility – it is almost two kilometers square, with 125 factory buildings, 3,000 robots, 85 kilometers of conveyor systems, and a workforce of 32,000 – workers often have difficul-

ty specifying their location with the requisite precision when reporting a problem. That makes finding where faults have occurred a difficult process that costs the plant several thousand working hours a year.

This is where the plant's 21,000 cordless phones come in. In the future, they will be used as a means of locating where a problem has occurred. Our R&D people have developed a solution that does not involve the costly installation of transmitter systems. Instead, all it requires is the addition of intelligently

designed software to the communication system.

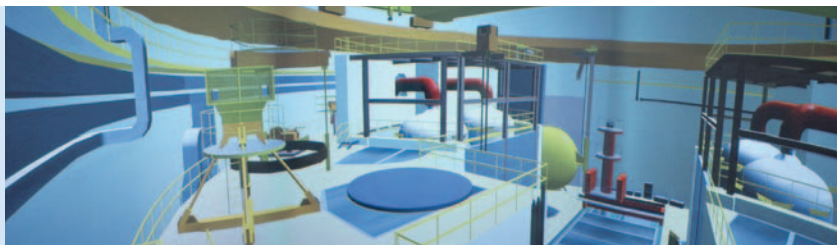
The signals received by different base stations from a DECT phone are compared against reference patterns, allowing the system to localize the handset with an accuracy of around ten meters. Some five seconds after the service hotline receives a call, the caller's location is displayed on a monitor, letting the service engineer know whereabouts in the plant the fault has occurred.

## We focus on customers' needs

One of our greatest strengths as a company – along with our power as an innovator and our global presence – is our unwavering commitment to meeting customers' needs. Part of being customer-focused is that we align many of our technical developments closely with customers' wishes. In some cases, we even involve customers directly in the development process.

One prominent case in point is our collaboration with the U.S. Postal Service (USPS) on the development of the Postal Automated Redirection System (PARS), an important technological advance that now saves the U.S. mail several hundred thousand dollars a year. PARS identifies the undeliverable-as-addressed letters and parcels that result from change-of-address orders during initial handling and automatically redirects them to the correct destination. This avoids mail first being delivered to old addresses and then forwarded to a redirection center for re-addressing – a process that can take several days and entails an unnecessary additional expense. Of the 200 billion or so items of mail handled by the USPS each year, three percent are undeliverable and used to generate costs of US\$1.8 billion.

We offer a valuable service to customers planning large-scale facilities like factories: We can create three-dimensional models of their buildings and manufacturing installations on computer systems. These models are used to optimize all of the components in the factory prior to the start of construction work.



### Partnering for success

We have thousands of account managers whose job it is to develop and maintain these partnerships. Tasked with creating a detailed picture of customers' needs, they act as an interface between Siemens' developers and customers. In fact, we go to great lengths to make sure our products – mobile phones or power generating facilities, medical software or washing machines – are as user-friendly as possible. At usability labs in Munich, Princeton and Beijing, our engineers, IT specialists, designers, and psychologists optimize our products' and computer software's user interfaces, partly by observing test subjects while they work with our products and prototypes. In 2003, usability experts from almost every

Siemens operating unit met at a conference in New York to share their knowledge, ideas and experience. In the future, they plan to combine their efforts to a greater degree so as to address customers' needs even more effectively.

### One-stop shop

One major benefit for our customers is that they can source more than just one product, system or service with Siemens. For example, when an industrial enterprise sets out to build a factory, Siemens can offer a comprehensive array of solutions and services from a single source. Today, these even include computer-based planning of the buildings, which can then be displayed in full detail as virtual three-dimensional models. During the construction phase, we can install the power supply, the heating, the security, safety and air-conditioning systems, and the information and communication infrastructure – with everything from phone systems to computers. We can also supply electric motors and Simatic programmable controllers to drive the industrial installations. In the future, with major industrial projects of this kind, our sales people will focus to a greater extent on cross-selling so as to market relevant products and services from multiple Siemens Groups.

### Working the phones

To keep an open ear for customers and offer quick assistance we operate call centers. In fiscal 2003, these centers took three million calls. Around 40 percent of callers contacting company switchboards can state what kind of assistance they need but they do not know whom to contact specifically. Our call center agents can help by checking the Siemens Sales Contact Directory, a catalog with more than 80,000 entries currently queried as many as 4,000 times a day. We are constantly improving the quality of the directory's keyword index.

Issues that cannot be resolved immediately are referred to our customer care center in Frankfurt. Here, agents are on hand to answer questions on all kinds of Siemens products, past and present – everything from mobile phones and kitchen appliances to computers, enterprise phone systems, accessories for automation systems, and power plant turbines. The agents rapidly locate the right contact and then try to see the problem through to a satisfactory conclusion.

### CROSS-SELLING IN THE U.S.

In the U.S., our cross-selling initiative is called ONE Siemens. With the construction and operation of large-scale facilities – such as airports, hospitals, or sports stadiums – we can pool the competencies available across the company's various operating units to offer comprehensive turn-key solutions. For example, four of our Groups were involved in equipping the 70,000-seat Reliant Stadium in Houston, Texas. Among other things, they supplied the communication systems, control systems, fire equipment, and the security and safety installations. The streetcar line serving the stadium will begin operating in time for the Super Bowl 2004, the final of the U.S. football championships. Siemens is supplying the cars, the signaling technology, and the power supply and distribution systems.



## Global competitiveness and fair practices

Siemens took its first step toward becoming a global player when it set up a regional company in Russia in 1853. By the end of the nineteenth century, business in Europe and beyond had begun to play a substantial role in the company's success. Today, like many of our customers, we are competing globally for market share in every area of our business. We face mounting pressure to innovate, to cut costs and to lower prices – partly on account of competition from dynamic new players, predominantly in Asia.

### Knowledge transfer through R&D

Maintaining a strong competitive position at the global level means constantly making sure we are still ahead of the curve – in everything from research and development, to purchasing, manufacturing, sales, and service. This requires that we concentrate our research and development activities in those regions where technological expertise is high, and that we foster local research initiatives. Siemens has almost 50,000 people working in R&D in 30 different countries. This is how we bring our technology know-how to other countries and build local competency. When it comes to exceptionally challenging and costly development projects, our approach is to engage in strategic global alliances with international partners.

### We require suppliers to comply with fundamental values

We conduct our purchasing through a worldwide network of procurement centers. Besides paying attention to quality and price, these centers also help to ensure that suppliers comply with international labor and environmental standards. Some 4,500 suppliers worldwide have now signed a declaration for us – a standard requirement in all Siemens' business relationships since November 2002 – in which they undertake to protect the environment and to uphold the fundamental human rights values of the international community. Audits are conducted regularly to verify suppliers' compliance with these standards.

“With two-thirds of our workforce of over 400,000 outside Germany,

Siemens is a truly multicultural organization.” ● ● ● ● ● ● ● ● ● ●

Heinrich v. Pierer, President and CEO, Siemens AG

### **We manufacture to consistently high standards worldwide**

We operate more than 300 manufacturing locations across the world in various economic regions, partly as international joint ventures. In our efforts to remain internationally competitive, locations with especially favorable cost structures are playing an increasingly important role. Barring Germany and the U.S., China is now the country with the greatest number of Siemens manufacturing locations – 30 in total.

Our regional manufacturing units are an integral part of their respective national economies and societies. They purchase local goods and services, they offer attractive jobs, they train young people, and they pay local taxes. At the same time, they form part of a global company and, as such, they are subject to Siemens' Principles and Business Conduct Guidelines (see page 62). Among other things, these principles and guidelines require that they respect fundamental human rights and that they apply high ethical and legal standards in their customer, supplier and employee relationships.

We respect cultural differences, and we view employee diversity as enriching for our organization. It, too, enhances our international competitive strength: In our experience, multinational teams are frequently better capable of producing optimum solutions that successfully fulfill customers' expectations all over the world (see page 23).

### **Customer focus in sales and service**

Building on our experience in various countries, we are currently setting up a global network of centers of competence to enhance our performance in the sales and service sector and to sharpen our customer focus. Essentially, we believe in going where our customers are.

Our sales reflect a significant global trend: After the U.S., the countries with the highest rates of growth are up-and-coming states in Asia and Eastern Europe. By setting up locations in tomorrow's high-growth markets, we can protect our competitive position in the international arena as well as jobs in Europe, our home market.

#### **CHINA'S EXAMPLE**

China is more than just a market with a real economic growth rate in excess of seven percent. The country is also one of the strongest manufacturing locations in the world. China has made the technological transition into the present far more rapidly than many other countries. Compared to Germany, China today already has twice the number of people working in research – some 900,000 – and produces ten times the number of university graduates in core engineering disciplines. Industry forecasts are unanimous in predicting that China, by 2010, will be the foremost manufacturer of electronic components among the world's newly industrialized countries, and will likely have a share of around 14 percent in the world market – greater, even, than Western Europe. This not only explains why many new rivals are emerging in China, it also underscores that any company wishing to compete effectively in the international marketplace has to operate in China.

**BASIC SUPPLIER REQUIREMENTS:**  
[www.click2procure.siemens.com](http://www.click2procure.siemens.com)

## Excellent employees drive our success

We build our success as a company on a highly qualified and motivated workforce. For a large, global company like Siemens, attracting and retaining highly qualified people to work for us and offering them the right continuing education and development opportunities is therefore an ongoing imperative. In periods when business and markets are shrinking and the size of the workforce in parts of the company needs to be adjusted accordingly, this is a special challenge. As unavoidable as adjustments are, employee motivation and the hiring of new and qualified employees is crucial.

### Advancing students, tomorrow's knowledge workers

Thirty-two percent of the new people Siemens hired worldwide in fiscal 2003 were university-trained. We have a sizeable need for university graduates – reason enough to foster contact with, and support, students, particularly those studying for degrees in engineering, the natural sciences, or economic science. We seek to offer them opportunities to broaden their horizons and to acquire academic and practical experience in a multinational environment through a number of worldwide programs and partnerships. One excellent way to get to know Siemens better is through our industrial placement and internship opportunities – popular with thousands of young people each year. Students who show exceptional promise and receive the requisite recommendation from their supervisors are awarded a place on our TOPAZ advancement program. Students can also obtain an academic qualification in other programs that include a semester spent in a foreign country, an international internship, business project work, and management training courses.

#### AWARD-WINNING PERFORMANCE

In 2002, Siemens Professional Education (SPE) received the German Employers Award for Vocational Training in recognition of its high standards and the respect it has earned throughout the industry. The award honored SPE as the foremost organization when it came to promoting employability by providing onward qualifications and valuable soft skills. SPE's exceptional quality standards also benefit the numerous partner companies on whose behalf Siemens is currently training some 2,800 apprentices.

This year, Siemens in Austria, too, picked up an award – from *Gewinn*, a popular business magazine – as the country's most popular company in the category Employee Training.

### Vocational training: The right start for a career

Today, Siemens' own vocational training programs continue to play an important role in securing the kind of well-qualified workforce that is essential to our future. In Germany, we are the number one provider of vocational programs, with 8,600 youngsters currently training at around 60 Siemens locations for occupations in business, engineering, and information technology.

Over the years, we have also actively advanced the curricula for a number of different job qualifications – curricula designed to commu-



nicate not just important technical knowledge, but also a broad range of valuable organizational, social and cross-cultural competencies.

Siemens Professional Education offers 35 separate vocational and higher-education programs and receives roughly 50,000 applications from prospective apprentices and students annually. This year, more than 2,200 embarked on a career with Siemens. As in previous years, the company has continued to overfulfill its obligations in the vocational training sector in Germany by putting more people through programs than it actually needs for its own workforce. We also provide places on our apprenticeship programs to youngsters with disabilities (see page 49).

We often “export” Germany’s style of dual vocational system, with its combination of classroom training in technical college and practical, hands-on training in industry, to our Regional Companies, where it helps to raise qualification levels among employees and to increase the quality of local content. In 27 countries in Europe, Asia, the Americas and Africa, 3,600 apprentices are currently taking part in locally aligned training programs to acquire the skills they need for a particular trade or occupation.

At our training center in Cilegon, Indonesia, a facility where Siemens has operated dual vocational programs for 25 years now and is currently training 70 apprentices, students from the local university and, for the first time this year, students from the Swiss German University in Jakarta are completing practical training.

### Extending skills through onward training

To streamline our training offerings and to gear them more closely to our actual needs, we merged our employee and management competency building and development programs into a single service unit, Learning Campus (LC), in fiscal 2003. LC’s education and training programs interlock tightly with our three company programs, *Innovation*, *Customer focus*, and *Global competitiveness* (see page 62). This enables employees to align their skills and competencies more specifically with the company’s strategic goals.

The situation is much the same with our training programs for management-level employees. Siemens Management Learning is proving a success all over the world. Siemens in China, for example, recently reported its one-thousandth management training program graduate.

#### TRAINING AND CAREERS:

[www.siemens.com/career/topaz](http://www.siemens.com/career/topaz)

**EXCEPTIONAL LEADERSHIP AT MEDICAL SOLUTIONS**

It was in large measure due to the rigorous development of excellent leadership skills that Medical Solutions managed to turn its business around. Managers' performance and success at achieving designated targets are discussed regularly in quarterly reviews and taken into account in future business planning. No less important are measures by the Group to identify and systematically advance high potentials, who likewise feature in the quarterly review sessions. Medical Solutions' managers are assessed on their performance and achievements each year in accordance with the criteria established in the Siemens Leadership Framework, which sets a binding baseline worldwide for all of Siemens' management-level employees.

**Excellent leadership is a strategic success factor in business**

Strong financials, motivated employees, satisfied customers, and efficient processes – these are the goals that we expect our managers to meet and that we use to gauge their performance. Each year, our employees provide us with feedback on how successful those who lead them have been at inspiring them to deliver top-class performance. Those Siemens operating units that have systematically made leadership an integral part of their business strategy – units like our Medical Solutions Group (see sidebar) – have proven especially effective at this.

**Motivating employees to be their best**

Motivated employees are willing to give their best and to bring their creativity to bear for the benefit of the company. At Siemens, we aim to promote a corporate culture that builds and sustains a high level of motivation in our workforce. Depending on the local legal framework, initiatives here may include special arrangements regarding when, where and how people accomplish their work – partly with the goal of giving our employees greater flexibility to coordinate work and home life better. Besides flextime and part-time work, these arrangements include telecommuting and the option of sabbaticals.

**Family interests**

We offer a variety of support for employees who start families. For many, working part-time eases a subsequent return to professional life. We also help in different ways with childcare. In the Netherlands, for example, we share in the kindergarten costs. In Germany, besides working with local kindergartens, we also work with outside agencies that help employees to find helpers to look after family members in need of home care. Other initiatives in Germany include a babysitter finding service on the intranet, and the organization of supervised activities for children during school vacations. In Belgium, Siemens provides financial aid to help care for the sick children of employees.

When Siemens employees need to relocate temporarily to another country for job reasons, we try to help them in different ways to adjust quickly to their new situation. For partners and spouses moving with them, relocation can often mean an involuntary hiatus in their own careers. To help find an alternative, we play an active part in the Permits Foundation, an international initiative providing relocation support for spouses, including assistance with procuring work permits.

## THE VALUE OF DIVERSITY

We see an enormous creative potential in the diversity of our employee base. Men and women from many different nations, of different age groups, with different cultural and religious orientation, ethnicities, and social backgrounds work for Siemens at our locations around the world. Through their individual perceptions and ideas, they all help to enrich our organization in many ways. For example, we have found that multinational, cross-cultural teams often produce more pragmatic solutions, faster, when it comes to mastering technical, economic and business challenges.



### Promoting diversity

We do a large amount to foster this well-spring of creativity. Our guiding principles for promoting and managing diversity apply in all our Groups and Regions. In South Africa, a country rich in cultural and ethnic diversity, our human resources policy seeks actively to advance members of the workforce from formerly disadvantaged groups. Our efforts here include extensive training measures for these workers, plus mentoring programs for future management-level employees.

Siemens in the U.S. has developed a culture of active diversity. Throughout all areas of HR policy we operate projects, programs and initiatives to promote diversity. At the same time, we provide support to the minority advancement programs INROADS and

NACME. Efforts that begin prior to recruitment – through summer internships for students from minority groups, for example – continue in our HR development programs with mentoring, diversity targets for managers, and the formation of networks through which Afro-Americans or Latin Americans can communicate and share ideas. We also hold seminars in which managers are sensitized to diversity issues. To promote the sharing of best practices, knowledge and experience in this field, Siemens Westinghouse in 2003 organized its first diversity forum, held in Florida, with representatives from 44 companies.

### Benefiting from experience

Younger members of our workforce can learn a vast amount from older, more experienced employees. Through our HR policy, we try to ensure that the company can retain the valuable knowledge that mature employees have to offer, partly by creating opportunities for them to advance their careers.

Siemens in the Netherlands operates a job rotation scheme that enables older employees to take on new tasks and challenges that help keep their work interesting and their minds active. Regular medical checkups and consultations help additionally to sustain both their ability to perform well and their quality of life. In Germany and in the Netherlands, we also offer special orientation seminars to assist mature workers in deciding how to shape their future professional lives.

### Building on women's qualities

In the future, we want to recruit an even greater number of women, particularly for jobs in technical and scientific fields. With the ProDi (Promoting Diversity) project in Germany, we have embarked on a number of initiatives to increase the number of women in the workforce at every level. The project has already achieved a marked rise in the number

of women managers and high-potentials, and has laid the foundations for a steady and continued increase. Our operating Groups are pursuing the same strategy. They seek to deliver new impetus through a variety of initiatives that have included the organization of a women's network at Siemens Dematic and the launch of a special advancement program to cultivate female high potentials at our Information and

### MORE WOMEN IN TECH

We maintain close ties with schools in order to engage and influence young women with the goal of winning them in greater numbers for technical professions. In Germany, the YOLANTE mentoring program works to help female school leavers with an university entrance level qualification by smoothing the way to a technical degree program. In several countries, including the U.S., South Africa, Switzerland, Austria and Germany, we take part in Girls Day, an annual event to which we invite girls in our employees' families to spend a day getting to know what kind of jobs Siemens has to offer. In Germany, some 2,300 youngsters attended at 42 Siemens locations in 2003.

Communication Mobile Group. Several of our Regional Companies, too, now operate special programs designed to increase the number of women in the workforce. In Indonesia, for example, we are encouraging the formation of women's networks to further the interests of female employees.

### PROMOTING DIVERSITY:

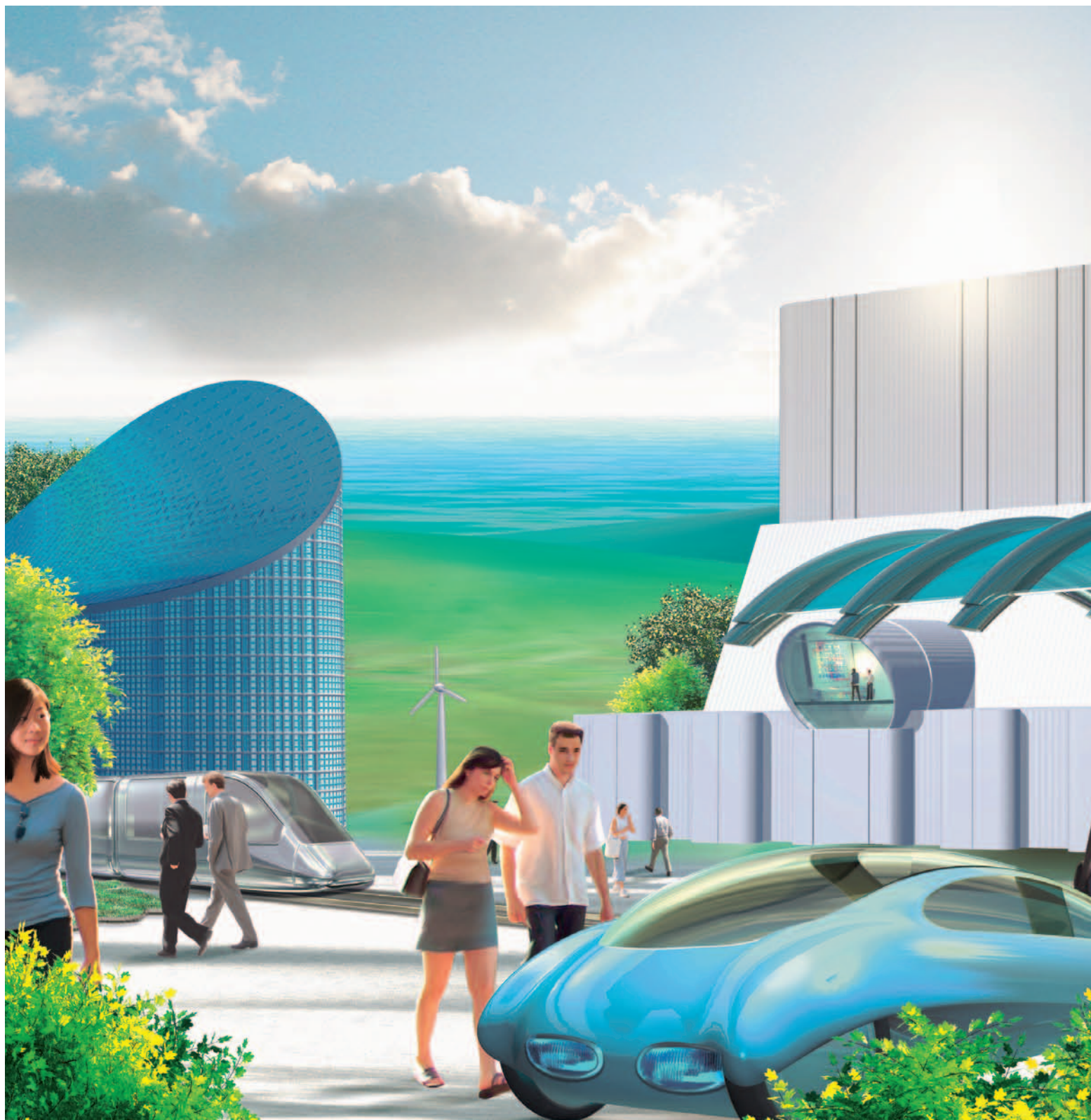
[www.siemens.com/promoting\\_diversity/en](http://www.siemens.com/promoting_diversity/en)

### YOLANTE:

[www.siemens.de/yolante](http://www.siemens.de/yolante)



Our goal: To innovate for a clean environment





Tomorrow, we will have to utilize the world's limited resources far more efficiently and improve the environmental compatibility of transportation. We can achieve these goals in different ways – through greater use of virtual reality applications, through greater product and component miniaturization, and through intelligent use of innovative technologies. In transportation, for example, we can reduce environmental impact by using traffic management systems to streamline road traffic and help private and public transport to interlock efficiently.



**For Siemens**, protecting the environment is an unwavering commitment, a commitment that issues from the desire to apply our strengths as an innovator to creating a future in which the environment is among the winners. Our innovations help to replace the construction of prototypes through simulations; to promote more environmentally compatible ways of filling our need for mobility; and to advance the dematerialization of products with the goal of conserving natural resources.

Protecting the environment is also basic to our everyday processes. We are integrating product-related environmental protection into our business processes and are gradually phasing in an environmental management system at our manufacturing locations. For ten years now, we have been creating products to an in-house standard for ecofriendly design.



## Eco-compatible and economical products and solutions

We develop innovative products and solutions – from phones to X-ray machines, from automobile fuel-injection systems to power plants – created using optimum materials and produced using the most recent state of the art. Often, these new products and technologies are the result of decades of research. We as a company have the requisite stamina and perseverance – as exemplified by recent successes in piezoelectronics and in high-temperature superconductivity. Advances like these also have a positive impact on the environment, because modern, innovative technology generally consumes fewer resources and helps to reduce emissions.

### Conserving resources with virtual reality

With virtual reality, you may not be able to pretend you have a meal in front of you and that you can eat your fill, but it will let you act as if you have a machine in front of you and allow you to test how efficiently it will run when fitted with a different engine. In a lab just 30 meters square, you can simulate having a 940-kilometer overhead power line, complete with high-voltage direct-current transmission systems, and can fine-tune the technology as if it were real. VR can also be used to familiarize train drivers with new control consoles as they drive through country actually located hundreds of kilometers away.

Although VR can't work with fundamental biological needs like hunger and thirst, it has become an important driver for innovation in the world of technology: Computer simulations of technology in virtual environments will play an increasingly important role in the future. They have the capacity to radically cut time and resource requirements and costs; they help reduce traffic volumes and the attendant environmental impact; and they allow remote maintenance of industrial installations and power plants. Siemens is already exploiting the benefits of virtual technologies of this kind in an array of different fields.

### Simulating manufacturing cells

Every new mass-produced article – a car, a refrigerator, an engine – needs specially tailored manufacturing equipment. Until now, complete prototype manufacturing cells had to be built in order to test and optimize the interplay between mechanical, electronic and software components. In the future, this won't be necessary: In collaboration with Tecnomatix, a company in Israel, we have developed software that uses the

#### ENVIRONMENTAL MISSION STATEMENT

We place immense importance on protecting the environment. For many years Siemens has had an environmental management system in place covering the whole of the product life cycle – from product planning and development to recycling and disposal. Our environmental mission statement underscores our commitment in this area.

[www.siemens.com/environmental\\_mission\\_statement](http://www.siemens.com/environmental_mission_statement)

mechanical, electrical and geometrical data describing machinery and components to create three-dimensional real-time simulations. This allows us to run through the whole of a new production process, from beginning to end, in a simulation on a computer instead of working with a prototype.

Take panel welding, for example: The software works with a comprehensive set of mechanical data to generate a program for controlling the welding robots, the conveyor system, and the components feed system. The program drives the whole of the manufacturing cell in a virtual space and allows engineers to simulate the interaction between the mechanical systems and the electronics. The effects of only minor modifications on the overall system are immediately visible. Even the safety of the system can be tested and increased, because the simulation allows unforeseen events, such as a person entering the space in which the welding robots are working, to be modeled. This approach can achieve cost savings of up to 20 percent during the planning phase, not just because the simulation software eliminates the need for a hardware prototype, but also because it shortens the pre-production phase.

Digital factories simulate not just the product – in this case, an automobile – but also the way all the processes involved in manufacturing interoperate. This kind of VR modeling enables interlocking systems to be fine-tuned and tested before they are actually built and deployed in a production environment.



### Letting data do the traveling

As virtual environments become more sophisticated at modeling the real world, much business travel gradually becomes superfluous. With the technology available today, we can leave the traveling to data instead. This data could be from a packing machine, an x-ray machine, or an industrial plant. Technicians equipped with PCs, software and a data connection can monitor systems and installations in real time, commission them, complete maintenance tasks, and organize repairs – often, before a serious problem actually occurs.

Sometimes, we can also save our customers from having to make journeys. Our transformer plant in Bogotá, Colombia, for example, offers customers the option of following the final pre-delivery inspection of their power transformers from their PCs. In the past, customers used

## “Innovation is always in demand.”

Klaus Wucherer, Member of the Siemens Managing Board

to travel to Bogotá specially for this final and crucial test. Today, in the comfort of their own offices, they can use new video-based acceptance testing to monitor each step in the manufacturing of their transformer. This may sound easy, but the technology involved is quite complex. Siemens holds a string of patents relating to remote maintenance alone, and is currently refining the technology still further.

### Monitoring power plants online

One new and highly promising application for our patented remote maintenance technology is Power Diagnostics, a monitoring system for power plants that makes for fewer shutdowns, shorter maintenance times, and more precise inspections than conventional diagnostic systems. The system determines exactly which spare parts and tools are needed, and whether the work requires the assistance of specialists.

Our Power Diagnostics Centers in Orlando, Florida, and Erlangen, Germany, currently monitor over 100 power plants online, 24 hours a day, seven days a week. The centers' advanced analysis and diagnostic software identifies and records any initial signs that could indicate a developing fault, and allows precise and timely intervention. Besides benefiting the environment, this technology also offers major advantages for customers in that it limits the scope of damage, prolongs facilities' service lives, raises power plant availability, and lowers operating and maintenance costs.

### More light using less material and less power

One step along the road toward resource conservation is dematerialization. It, too, has a sizeable impact on the environment. Our most recent innovations in the lighting sector revolve around smaller and more ecofriendly products. Our subsidiary Osram, for example, has now succeeded in producing two types of lamps without mercury that previously depended on the metal. And there are more advances in the pipeline: We're currently developing a new electronics system that could enable us to eliminate mercury from other lamps, too.

Our light-emitting diodes are ramping up for success: They last up to 100,000 hours, far longer than standard light bulbs, which typically last just 1,000 hours. LEDs are also available in a variety of colors; they



Remote diagnostics for power plants: Power plant and service engineers, working with IT specialists, monitor generating facilities online.



One vision that could well become reality in the not-too-distant future is the use of walls as large-format video screens. With new technology based on organic light-emitting diodes (OLEDs), it will be possible to create video displays using extremely thin plastic foils. Tomorrow, wallpaper or walls could be turned into large, low-power screens that require no backlighting.



#### NEWS ON LIGHT RESEARCH:

[www.siemens.com/pof](http://www.siemens.com/pof)  
[www.osram.com](http://www.osram.com)

are extremely small; and they consume far less power than conventional light sources. LED researchers have determined that replacing all conventional lamps with light-emitting diodes would eliminate the need for 40 major power plants in the U.S. alone.

Siemens VDO Automotive installs some 700 million Osram LEDs a year as cockpit lighting in automobiles, and industry experts expect that LEDs will be used as headlights before the end of the decade. To meet the mounting demand, Osram opened the world's most advanced optical chip fab in Regensburg, Germany, in April 2003. The facility will enable Osram to double its output of optical semiconductors by 2005.

The latest generation of mobile phone cameras shows just how versatile LEDs can be: Especially bright white LEDs from Osram Opto Semiconductors will soon replace conventional flash modules. With a mounting depth of just two millimeters, they are small enough to fit into even the most compact mobile phones.

Organic light-emitting diodes (OLEDs) will likely play an important role in tomorrow's display technology. Smaller than ordinary LEDs, they are ideal for use in ultra-flat monitors and display panels. Also, they are self-luminous, so in contrast to today's liquid crystal displays, they need no backlight. The first OLED prototypes were made at Osram's research and development center in San José, California. Mass production is scheduled to begin in early 2004 at Osram's new manufacturing facility in Penang, Malaysia.

#### APPEALING TO CONSUMERS

Even the most economical energy-saving lamp is of little use if nobody buys it, so we need to make sure that products like this appeal to users. With the consumer in mind, Osram has developed a new series of energy-saving lamps that are smaller in size than their predecessors and have the same form as classic globe and candle-shaped bulbs. The new series has the potential to win customers who previously found energy-saving lamps too large or inelegant.

Osram is also planning an information and marketing drive in home improvement markets and electrical goods stores for the spring of 2004 to encourage consumers to switch to energy-saving lamps. Customers will have the chance to take part in a prize draw and will receive brochures offering tips on saving energy.

#### Innovations for clean transportation

For many years now, Siemens has been developing and refining technologies to enhance mobility and make transportation more environment-friendly. Our innovations now play an indispensable part in road, rail and ocean traffic, reducing energy and fuel consumption, lowering emissions, integrating personal and public transportation more effectively, and helping rail networks to achieve both a broader appeal and

greater cost-efficiency. In 2003, we again made considerable progress in new and advanced technologies.

### Automobiles

Siemens VDO Automotive has developed a direct fuel injection system with extremely fast piezo actuators for internal combustion engines. The new system allows fuel to be delivered rapidly and in exactly measured quantities, even at high engine speeds. Mass production of the new system, which can cut fuel consumption by 20 percent in comparison with a conventional gasoline engine, is scheduled to begin in 2006. Our piezo actuator technology has been available for diesel engines since 2000. We recently launched our third-generation piezo common rail injection technology (PCR3) in a redesigned injection system that makes diesel engines even cleaner and more economical to run: In comparison with engines built in 1990, particulate emissions are at least 91 percent lower and nitrogen oxide and hydrocarbon emissions are 95 percent lower in engines equipped with this technology, making them compliant with the Euro V standard, due to be introduced in 2008.

### Traffic management

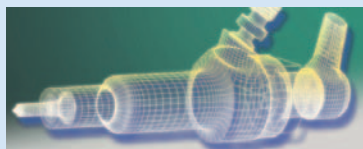
Fitting new technology to individual vehicles is not the only means of easing the burden on our environment. Traffic management systems, too, can make a valuable contribution. For example, an intelligent system that goes by the name of MOTION can optimize the red and green

## PIEZO TECHNOLOGY: 20 YEARS IN THE MAKING

High tech doesn't fall from the heavens – it involves lengthy and intensive basic research. Also, it can take a long, long time for innovative products to emerge. Siemens has exhibited the requisite patience and tenacity in many fields.

One prominent example is our work on piezo technology. After 20 years of intensive research in a number of Siemens' own labs and with partners like Epcos AG, and with more than 200 patents in this field, we were finally able to market our first piezo injectors. These

have had a tremendous positive impact on the environment and on costs: They can cut gasoline consumption by around 20 percent and are capable of reducing emissions to a level previously only possible with costly emissions-processing systems.



### The piezo effect

Applying a voltage to piezo materials causes the atoms in the material to shift against one another, causing a rapid change in length that takes just 100 microseconds. This effect is used to open an injection valve. Piezo valves operate around four times faster than solenoid valves and are capable of controlling injection processes with far greater precision.

[www.siemens.com/gasoline\\_systems](http://www.siemens.com/gasoline_systems)

**TRAFFIC SOLUTIONS:**[www.siemens.com/traffic](http://www.siemens.com/traffic)**LOCOMOTIVES:**[www.siemens.com/trains](http://www.siemens.com/trains)**A BOON FOR MOTORISTS AND THE ENVIRONMENT**

In Piraeus, Greece, our MOTION traffic management system has cut journey times by 8–14 percent and has reduced the number of traffic jams by 20–50 percent. At the same time, emissions from road traffic have dropped 10–17 percent. With Siemens' traffic management system, the city of Graz in Austria, too, has succeeded in reducing emissions by more than 10 percent. Athens is planning to use integrated traffic management systems to help keep the heavy automobile traffic flowing during the 2004 Olympic Games.

phases of traffic lights to help avoid traffic congestion as far as possible. What's special about MOTION is that it tracks the numbers of vehicles at all the traffic intersections of a city or urban district rather than just at those key intersections that typically experience a heavy traffic load. These detailed inputs allow the system to conduct an exact analysis online and to streamline the traffic flow throughout the road network. The information collected is used not just to control the traffic lights but also to deliver traffic information to road users through various channels, including dynamic display panels, the Internet, and navigation systems, enabling drivers to avoid congested areas.

**Rail**

New technology has enabled us to introduce further improvements in the rail sector, already the most environmentally compatible form of transport. Compared to the BR 218 diesel locomotive primarily in use today with German rail operator Deutsche Bahn, our current EuroRunner series of locomotives is only half as noisy; they consume between 5 and 7 percent less fuel, and they have substantially lower emissions: 34 percent less nitrogen oxide, 67 percent less hydrocarbon, 70 percent less carbon monoxide, and 65 percent less particulates.

We have also developed a new type of energy storage system for use in streetcars and subway trains. It stores kinetic energy during braking and then makes it available later to assist acceleration. With this system, the transformers consume up to 30 percent less energy.

**Ships**

High-temperature superconducting (HTS) technology will bring considerable benefits to tomorrow's ocean-going ships. We are currently building the first HTS generator capable of delivering an output of four megawatts at a speed of 3,600 revolutions per minute. In the future, ships' generators will be around 50 percent lighter than they are today and just a quarter the size.

At the same time, high-temperature superconductivity is not just an example of an important innovation that called for patience and staying power, it also reflects how key innovations can benefit the environment as well as technology users. It's innovations like these that make us proud of our GLOBAL NETWORK OF INNOVATION.



## Environmental protection at Siemens: Ecofriendly manufacturing, worldwide

We take steps to minimize environmental impact at every Siemens manufacturing location around the world, because it's part of our corporate culture. During the past fiscal year, we managed to further enhance manufacturing technology in many areas and achieved significant advances that have not only benefited the environment but have also improved our cost situation.

### Cutting resource consumption is a plus for the planet

At our plant in Graz, Austria, we build bogies for rail vehicles. Recently, we stopped using liquid coolants in milling and drilling operations. The transition to dry machining processes has allowed us to eliminate a large number of cleaning and disposal operations, lowering costs by 16 percent. As far as we are aware, we are currently the only manufacturer of rail bogies in the world to use this advanced and environmentally friendly technology.

At Siemens VDO Automotive's Newport News facility in the U.S., we've also taken steps toward more environmentally friendly manufacturing. For some time now, we have been using air as a substitute for environmentally problematic Stoddard solvent to calibrate the fuel pressure controllers used in automobile engine fuel feeds. Stoddard solvent has an extremely low flash point and is a skin irritant. It therefore required special precautions to protect employees and the environment. Eliminating the solvent – and its potential dangers – introduced savings of roughly US\$50,000 in 2003. We expect these savings at least to double by 2005.

In Foshan, China, Osram has developed a manufacturing process for fluorescent lamps that requires considerably less mercury than previously. This reduces the potential hazards involved in working with mercury, eliminating the need for a number of maintenance procedures, and helps underscore Osram's position as a manufacturer of environmentally friendly products.

We have also introduced new manufacturing processes for halogen lamps that have allowed us to cut back substantially on the resources we consume. At our plant in Wipperfurth, Germany, these savings amount to some 2,000 kilograms of tungsten, 7,000 kilograms of molybdenum, 80,000 cubic meters of waters, and 13,000 kilowatt hours of power each year. In addition, we have switched to a new type of packag-

### VOLUNTARY ENVIRONMENTAL INITIATIVES AROUND THE WORLD

**Guadalajara, Mexico:** Company environmental and medical officer Dr. Miguel Velasco has transformed Siemens' largest location in Mexico into a model of industrial environmental protection. His achievements include a dramatic reduction in paper consumption, the installation of a water treatment plant, and the organization of employee training programs. **Istanbul, Turkey:** Güzin Yavuz and Nesrin Taslak set up For the Environment and our Future, a program to promote environmental awareness among children in elementary schools through presentations, competitions, and interactive labs. To date, 6,000 children have taken part. **Telford, Britain:** Siemens helped to form SILKIN – Waste Not Want Not, a company run by students at the Lord Silkin Secondary School, which markets decommissioned transportation and packaging material supplied by Siemens. Besides reducing the volume of waste destined for landfills, the initiative conserves resources, lowers disposal costs, and gives students a practical grounding in environmental protection and business.

ing that affords our products the same degree of protection yet reduces our annual consumption of paperboard by 34 metric tons.

**Sharing knowledge around the world**

We are constantly expanding our knowledge and experience in the field of environmental protection. The fact that we have to comply with a wide variety of laws and standards around the world presents us with a special challenge: We need to share our knowledge and experience efficiently throughout the company. To achieve this, we have not only set up an extensive reporting and information system on the corporate intranet, we also hold conferences, symposiums, and meetings at the global level.

Our Asia-Pacific Conference is a triennial event. Most recently, the conference took place in February 2003 in Aurangabad, India, and was attended by representatives from China, India, Korea, Malaysia and our Corporate Units, who met to share information on a variety of topics, including the rollout and maintenance of Siemens' worldwide reporting system, the onward development of fire safety strategies, and product-related environmental protection. They also reviewed examples of best practices submitted by several participating countries.

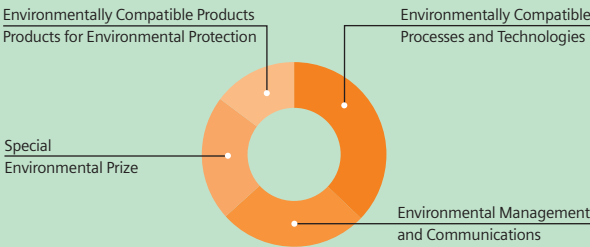
Siemens environmental officers from the U.S. and Canada met in the U.S. in Fort Lauderdale in May 2003 for their annual conference.

**OUR ENVIRONMENTAL AWARD IS DRIVING CHANGE**

Every three years, Siemens holds an internal environmental competition, open to teams or individuals who work for Siemens and its subsidiaries. In 2003, the competition was a major success, drawing 237 entries from 25 countries (see chart for categories). Medical Solutions in Erlangen, Germany,

won in the Environmentally Compatible Products/Products for Environmental Protection category with its Pro Med project (see page 35). Osram's Foshan facility in China won the prize in the category Environmentally Compatible Processes and Technologies for develop-

ing an ecofriendly production method (see page 33). In the Environmental Management and Communications category, Siemens' Transportation Systems Group in Brunswick, Germany, won with a worldwide management system for occupational safety and health and environmental protection. Our Regional Company in Turkey was awarded the special environmental prize for an awareness-raising program it developed for elementary schools. As in the past, the projects submitted demonstrated that advances in environmental compatibility frequently also pay a dividend in terms of greater cost efficiency. Thus, besides enabling us to improve our environmental performance, the competition also helps us lower costs.



## “Improved environmental protection often achieves important cost savings.”

Claus Weyrich, Member of the Siemens Managing Board

For 69 employees from various countries, a wide variety of aspects of environmental protection and technical safety were on the agenda for three days in October 2002 at the Global Standards Conference and at the International Conference on Environmental Affairs, both of which were hosted by the Bicocca SiemensForum in Milan, Italy.

### Managing product-related environmental protection

Product-related environmental protection today involves taking into account the whole of the product life cycle – from initial product planning and manufacture to utilization, return, reuse and final disposal. Siemens Medical Solutions has developed special software tools and has made them an integral part of its business processes through an initiative known as Pro Med. These tools are designed to take into account, on a step-by-step basis, all aspects of product-related environmental protection throughout the Group. This strategy has already scored notable successes. In a pilot project, for example, the Group succeeded in slashing disposal costs by 20 percent.

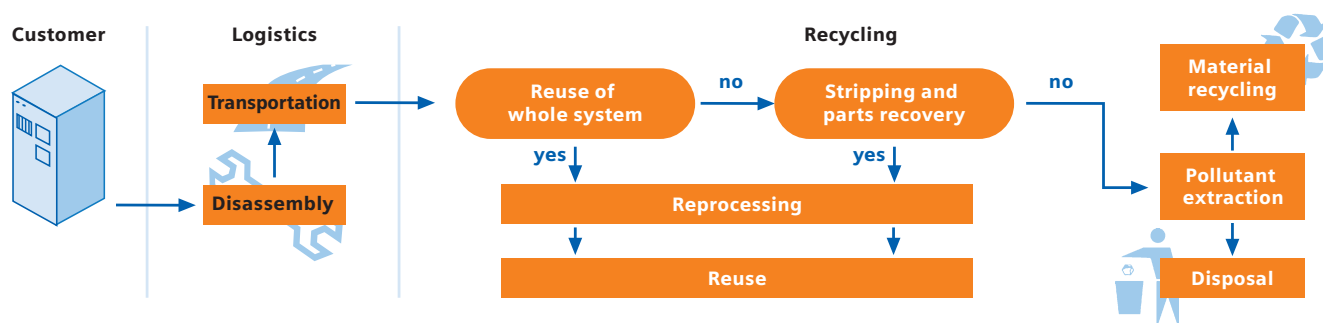
The Group's Refurbished Systems unit, set up in July 2001 (as we reported in our Environmental Report 2002), has now achieved a market volume of approximately €150 million per year. With this ecologically and environmentally sound extension of its business activities, the Group takes back used equipment – such as computed tomography scanners – remanufactures it, tests it thoroughly, and then sells it to a rapidly expanding international market for pre-owned systems.

### A unified European takeback system for industrial products

Beginning in August 2005, manufacturers of electrical and electronic goods in Europe will be required to take back certain types of decommissioned equipment and systems to ensure professional recycling and correct disposal. This is prescribed in the Waste Electrical and Electronic Equipment Directive (WEEE) issued by the European Union in the spring of 2003.

We have already acquired a considerable amount of experience with takeback programs – in connection with phone systems and with medical equipment, for example. We are now widening the strategies already developed for these product groups to encompass other Siemens units





Schematic representation of the takeback and recycling process based on the European Union's Waste Electrical and Electronic Equipment (WEEE) directive.

that manufacture industrial products. We will begin by setting up a unified disposal platform throughout Germany. The logistics, disassembly and recycling will be handled by disposal operators certified to ISO 9001 and ISO 14001 so as to ensure consistent quality standards. By choosing this way forward, we hope to exploit potential synergy benefits, achieve cost savings, and cover cost risks. Our goal is to implement a cohesive takeback strategy Siemens-wide in Germany by the end of 2004 that can serve as a model for our Regional Companies throughout the European Union.

Clearly, one prerequisite is that administrations keep to their schedule. By the time countries begin enacting national legislation from August 2005 to align with the requirements of the WEEE directive, we will have had a whole year in which to gather experience with our takeback strategy. In the consumer goods sector, too, we are planning to set up a broad-based, unified system in collaboration with Bosch Siemens Hausgeräte, Fujitsu Siemens Computers, and Osram.

## TEN YEARS OF ENVIRONMENTALLY COMPATIBLE PRODUCT DESIGN

Since 1993, Siemens has required new products to be developed in accordance with an in-house standard for environmentally compatible product design. This standard forms an integral part of our product planning and development. Whenever a new milestone is reached in the development process, checks are carried out to verify compliance with the standard. The same in-house requirements are also checked in internal audits. A great deal has been accomplished in the past ten years:

**1993:** Siemens publishes the in-house standard SN 36350. Highlighting the importance of designing recyclability into new products, the new standard called for the use of separate and distinct material fractions, ease of disassembly, and a reduction in the number of com-

ponents per product. It was soon expanded to encompass further aspects relevant to products' environmental compatibility, including durability, low energy requirements in the manufacturing process and in day-to-day use, and avoidance of hazardous substances. The team that developed the standard later formed the core of a specialist team for environmentally sound product design – now the Council for Environmental Product Management – which is responsible for the ongoing development and implementation of SN 36350 and for promoting best practice sharing.

**1996:** The Corporate Office of Product-related Environmental Protection publishes an initial set of guidelines defining key goals and focal issues in the context of product-related environmental protection.

**1997:** The Siemens Environmental Award, held every three years, introduces the new Environmentally Friendly Products category.

**2001:** Examples of practical, real-life solutions based on SN 36350 are published on the Siemens intranet to help new product developers implement the standard efficiently.

**2003:** Revised guidelines for product-related environmental protection are published. The guidelines now include information on managing product-related environmental protection.

These are just a few of the many milestones. Our environmental knowledge is growing all the time, and we are constantly adapting our internal guidelines and principles to reflect this.

## Pursuing our goals rigorously

Key internal environmental management issues for Siemens include the worldwide deployment of environmental management systems and the implementation of our environmental information system. Parallel to these broader strategic goals, each of our Groups and locations pursues its own specific and individual environmental objectives and operates its own programs.

### On schedule:

#### Worldwide rollout of environmental management systems

During the past year, we have worked successfully on developing our company-wide environmental management system based on defined milestones. This is a comprehensive project, encompassing 300 manufacturing locations in 28 countries in which we are currently implementing environmental management systems to the ISO 14001 standard.

In Germany, the number of environmental management systems subject to internal audits is at 100 percent; in other European countries, it is now at 60 percent; and in the rest of the world, it has reached roughly 30 percent of all plants and facilities. In addition, 30 of our manufacturing locations in Europe have been validated in accordance with the EU's Eco-Management and Audit Scheme.

### Expanding:

#### Our worldwide environmental information network

In recent years, we have succeeded in establishing a consistent global base of data for our environmental information system which, in its initial form, merely used data collected from our locations in Germany. At the end of 2003, we successfully brought to a close the Siemens Environmental and Technical Safety Information System project. The system now encompasses three modules – for industrial and product-related environmental protection, for radiation protection, and for fire and disaster prevention. This means that we now have a unified global information and reporting platform in place that brings together a wide range of environmentally relevant data from throughout the company on environmental protection and technical safety.

#### CONCRETE GOALS IN OUR GROUPS

All of our operating units are defining and pursuing increasingly specific environmental objectives. Our mobile phone unit, for example, plans to make the whole of its product range completely lead-free by the end of 2007, not just in Europe, but worldwide. Siemens Transportation Systems is preparing a program designed to further minimize potential hazards in railcar construction. And our Medical Solutions Group will shortly finish making environmental protection an integral part of its business processes.

## Employee health and safety are priority concerns

Siemens currently has a workforce of more than 400,000 people worldwide. For a long time now, the company has employed a rigorous and refined system of health and safety management that over the years has achieved excellent results. The number of accidents and the number of accident-related outages at Siemens are far below the average in our industry (see chart on page 39).

### OCCUPATIONAL HEALTH AND SAFETY GUIDELINES

To create a common health and safety baseline for all our employees, we have defined a set of guidelines that apply all over the world. They establish general principles and strategies, yet they leave sufficient room to accommodate country-specific regulations based on the relevant

statutory requirements and standards. The issues covered by our 14 principles include the responsibilities to be met by managerial and nonmanagerial employees, plus such issues as information and instruction, awareness-raising, and process management. The principles also

cover preventive measures, contingency planning, systematic investigation of accident causes, rapid provision of medical aid, documentation, regular reporting, and continuous improvement.

[www.siemens.com/health\\_and\\_safety\\_guidelines](http://www.siemens.com/health_and_safety_guidelines)

### Prevention rather than a cure

In Germany alone, we have some 100 company medical officers to take care of our employees. We place particular emphasis on targeted screening programs.

At a number of locations we currently offer free ultrasound thyroid examinations, and more than 14,000 employees have now made use of this opportunity. Around 12,000 employees have also taken part in our “T@lking eyes” project. This involves a photographic examination of the blood vessels in the back of the eyeball using special camera equipment. The pictures are sent to a university clinic for analysis. The results obtained using this method can reveal a heightened risk of a heart attack or stroke.

We also conducted early detection tests for skin cancer, circulatory diseases, cholesterol, and diabetes. Projects of this kind are generally conducted in association with SBK, Siemens’ health insurance provider.

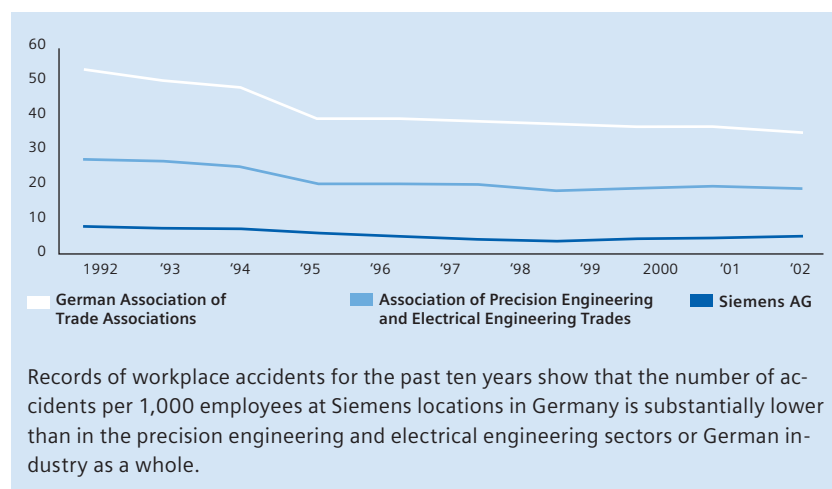


### Systematically enhancing safety

The latest advances in safety technology and ergonomics play a prominent role in shaping our industrial plants and processes. We have dedicated teams of experts in industrial safety and health, radiation protection, fire prevention, and industrial disaster prevention who have an excellent track record in all these areas. Their responsibilities consist primarily of ensuring that appropriate preventive measures are undertaken where necessary. Managerial employees, for example, are regularly briefed in special workshops in preparation for emergencies: Working with simulations, they learn how to protect employees and company assets if a disaster occurs.

We are constantly refining our management of industrial safety and health within the company. With SIGEM, a system we developed to manage hazardous materials, all our employees at our locations throughout Germany now have rapid access to information essential to the protection of their health and the environment. Also, by deploying occupational safety and health management systems that clearly define processes and responsibilities, we have succeeded in improving our safety record still further.

Efforts to integrate different aspects of protection have progressed substantially at many company locations. For example, our Transportation Systems Group, in association with a number of related companies, has set up a global management system for occupational safety and health and for environmental protection. This project proved so successful that it was honored with the Siemens Environmental Prize 2003 (see page 34).



### AROUND THE WORLD

**Austria:** Siemens has begun offering employees who smoke the chance for medical checkups consisting of low-dose multilayer computed tomography scans. The scans take just five minutes to complete and are capable of detecting lung tissue changes as small as two millimeters in size. This radically increases chances of effective treatment if a problem exists. **South Africa:** Siemens has launched an HIV/AIDS program that not only seeks to raise awareness of the disease but also to protect HIV-positive employees from discrimination and enable them to continue working in their jobs with Siemens for as long as possible. **Taiwan, Hong Kong, China:** During the SARS crisis, Siemens implemented a number of initiatives to protect employee health, including the publication of travel guidelines, fever checks, and the option of working from home. **Greece:** Twice yearly, around 200 employees give blood, which is stored in a blood bank for their own use in the case of an emergency. Some of these reserves are also donated at regular intervals to help children with blood diseases. **Russia:** Siemens pays for additional company medical insurance for employees.

Our pledge: To help build a society worth living in





Human life expectancy will continue to increase in tomorrow's society. This trend raises a number of questions that we have addressed in our Pictures of the Future. One solution we're currently developing for the healthcare sector is telemonitoring. This will enable people who live alone and who are in need of regular care to remain in their home environment for longer and to continue to take part in everyday life. Risk factors can be monitored using miniature sensors, and medical assistance can be summoned automatically in the case of an emergency.





**Corporate citizenship** has many different aspects for us. Through the products we create, we unite our business interests with a desire to improve people's living standards and enhance their living environments. We do this with products like medical equipment created to enable a much more independent and self-determined life for the sick and the elderly. It's the same with the products, systems and services designed to solve today's transportation and energy problems.

Good corporate citizenship is also about the provisions we make for the livelihood of our workforce of more than 400,000 people, their families and, indirectly, our suppliers' and partners' hundreds of thousands of employees. In those cases in the company where economic circumstances mean that jobs are insecure, we seek to assist those affected by helping them find alternative employment prospects within the company or elsewhere.

The third focus of our corporate citizenship is the contribution we make to public life. Our initiatives here include advancing education and science, promoting the arts and culture, addressing social problems through community projects, and seeking an open dialogue with all parts of society.

## Shaping the future with dialogue

Questions about the future concern us all. What will tomorrow's workplaces be like? How will we cope with the massive expansion in transport? How can we address the problem of an increasingly elderly population now evident in many countries? All these are questions to which Siemens could offer answers, but even the best ideas and solutions can fall wide of the mark if they fail to gather a sufficiently broad base of support. This is why we discuss issues of this kind with the general public, political leaders, experts, and interest groups. We can only ascertain people's real needs and identify suitable solutions if we communicate with them, so open dialogue is crucial to good citizenship.

### Addressing public interest

More than anything, the public at large is interested in how Siemens coordinates its business interests with its citizenship responsibilities and how large an influence the company has on the development of the economy and on people's quality of life. Siemens takes a proactive approach to communication on these and other issues – in part through the SiemensForums in Berlin, Erlangen, Munich, Vienna and Zurich with numerous exhibitions, public lectures, and panel discussions.

The SiemensForums are not the only platform through which we engage the general public. In many of the countries in which Siemens operates, we invite people to visit us and get to know us better. For the most part, these visitors are our immediate neighbors who take the op-

**SIEMENSFORUMS:**  
[www.siemensforum.de](http://www.siemensforum.de)

### A FORUM FOR OPINION

The exhibition *Move on! – Der bewegte Mensch*, hosted by the SiemensForums in Germany, homes in on a basic human need: mobility. Besides presenting current technology and its achievements, it highlights a number of resource-conserving technologies, and offers a vision of mobility in the future. Under the motto "The future – live," a panel of experts met in the SiemensForums to discuss key social and economic issues. One debate, titled "Tomorrow's world of work," concluded that the ability to

innovate is more crucial now than ever before and that building cross-disciplinary and cross-cultural competencies is essential to an innovation-friendly climate. The European Debates, featuring international panel members, came to similar conclusions. For a global company like Siemens, transnational collaboration creates key benefits, particularly for customers. How we can succeed in best meeting the needs of our markets, our customers and our employees is likewise the focus of our

Management Excellence event series, in which representatives from the business and science communities convene to discuss current management trends and theories. The SiemensForums occasionally also host more lighthearted events. During the summer school vacation, hundreds of children and teens descended on the Forum in Munich to take part in a variety of programs, including detective games that involved hunting for clues in the Forum, and an Internet-based workshop on storytelling.

During the planning of ISAR SÜD in Munich, a project to transform a corporate campus into an open urban landscape combining work space and living space, local citizens were able to raise questions and voice their opinions.



portunity afforded by open house days to visit “the corporation next door” and talk to Siemens employees. In the U.S., Siemens employees participate in Caring Hands Day with their neighboring communities each year. And in the Netherlands, we meet at regular intervals with high-ranking members of industry, politics and the public over dinner to discuss issues of relevance for society’s future.

#### A competent contact for political leaders

Besides chairing the Asia-Pacific Committee of German Business, our President and CEO, Dr. Heinrich v. Pierer, represents Siemens in the Federation of German Industry, the European Roundtable of Industrialists, and the World Economic Forum. To address the complexities of today’s business environment, employees in Siemens’ liaison offices in Berlin, Brussels, Washington and Beijing share their experience and exchange opinions with important decision-makers and give them access to management knowledge and expertise.

Many of our employees – particularly in Germany, Switzerland and France – play an active role in the political arena in that they hold some form of honorary or public office parallel to their jobs. Siemens encourages and supports this kind of commitment by helping these employees to balance their professional responsibilities with their political duties.

#### Dialogue with interest groups

Out of a commitment to fostering mutual understanding, Siemens willingly responds to critical questions and engages in debate on such hot button topics as globalization, and social or ecological issues. At the European level, the European Commission is extremely active in promoting a climate of open dialogue that brings together companies, management and labor, environmental and consumer organizations, environmental and socially aware investor groups, and other nongovernmental organizations (NGOs). We take part in this dialogue and seek to promote a grounded and realistic discussion by presenting concrete examples drawn from within the company.

#### AROUND THE WORLD

**Netherlands:** Siemens regularly holds lectures for political leaders, employees of NGOs and university students on such topics as social policy, global citizenship, and quality management. **South Africa:** Siemens holds an annual competition for science journalists. **Belgium:** Siemens is a founding member of the Corporate Funding Programme, which seeks to promote a collaborative exchange between businesses and NGOs. One of its tasks is to collect cash donations and distribute them to worthy causes. **Greece:** Siemens holds parties for local children. **Italy:** Siemens sponsors the European Corporate Responsibility Marathon. **Spain:** Siemens is a founder member of the Club de Excelencia en Sostenibilidad, a business organization that seeks to promote excellence in sustainability, to provide a forum for dialogue with stakeholders, and to create a benchmarking platform.



## Preparing young people for professional life

Our innovations create the foundations for sustained business growth. Our employees – their knowledge and creativity, their skills, their motivation, and their ability to pull together – fuel our innovations. Given that the development of knowledge and skills has to begin before people join our company, we maintain close ties with schools, colleges and universities and with their governing bodies.

### Shaping tomorrow's curricula

The Siemens partner schools are a prominent example of our work in the education sector. By partnering with schools, we encourage a mutual transfer of knowledge and information to promote the development of high educational standards. We primarily seek to advance education in mathematics, the natural sciences, and technology by fostering an up-to-date style of tuition. The Siemens partner schools project is part of the Youth and Knowledge Development Program, which operates a wide range of initiatives to help advance young people's training.

### Volunteer teaching

We are proud of the fact that many of our employees devote considerable time and energy to the advancement of education projects, and not just in Siemens partner schools. Employees in Denmark, for example, have “adopted” a school class. Spanning three years in total, this project was initiated to give students an opportunity to learn more about



We operate a variety of programs to promote young people's education.

### FOCUS: HIGHER EDUCATION

Qualified employees are crucial to Siemens' success, and the level of qualification that they are expected to fulfill is increasing all the time. In 2003, one-third of all Siemens' new hires had a university-level qualification. Of these more than 70 percent were graduates in engineering, IT, and the sciences. Given the impact that government education policymaking can have on our company, we engage actively in the education debate to share what we have learned from experience and offer ideas and suggestions regarding the development

of training and education programs. Our activities in this area center primarily on Europe, because two-thirds of our workforce is concentrated in this region. Higher education here is undergoing radical change. According to a resolution ratified by 30 countries, the traditional system of university degree programs is gradually to be phased out by 2010 and superseded by a multi-stage system of higher education of the kind already in place outside continental Europe. This new system will enable students to gain the requisite qualifications

for a particular career track by attaining a bachelor's degree in a three-year program; they can then go on to pursue their studies to a greater depth in a master's program. Siemens advocates harmonizing systems of higher education in this way to promote cross-border mobility among students and to provide a better grounding for the challenges and opportunities of globalization. Siemens' own advancement programs, too, play a valuable role in this context.

[www.siemens.com/career/campus\\_zone](http://www.siemens.com/career/campus_zone)

“Nothing is more important for individual prosperity  
and the economic progress of a country  
than the education of young people.”

Heinrich v. Pierer, President and CEO, Siemens AG

working in industry. Siemens employees visit the school six times a year to lecture to students in grades 8 through 10 on topics within Siemens' sphere of competency using science and technology examples taken from real life.

#### SIEMENS SCIENCE COMPETITIONS, USA:

[www.siemens-foundation.org](http://www.siemens-foundation.org)

#### YOUTH AND KNOWLEDGE:

[www.siemens.com/knowledge-zone](http://www.siemens.com/knowledge-zone)

#### AROUND THE WORLD

**USA:** Eighty Siemens employees help organize National History Day, a competition in which high school students test their knowledge of technological advances in history. **South Africa:** In Mosselbay, one of the country's poorest regions, we financed the construction of a school for 80 students. Siemens also pays for the building's upkeep and for a school bus. **Singapore:** We are conducting a one-year training program for 12 university graduates in association with the Singapore Economic Development Board. **Korea:** As part of the TOPAZ advancement program, seven Korean students have received scholarships for internships in Germany. **Russia:** Each year, Siemens funds scholarships for the ten best students at the Ioffe Physical-Technical Institute in St. Petersburg. **Britain:** We organize information visits and education days in the company for students from 16 schools in Manchester. **Mexico:** Siemens regularly donates tuition materials, books and technical equipment to students and universities.

#### Research begins in school...

Even in schools, students' initiatives in scientific research can spawn developments in technology that are potentially relevant for Siemens. In Germany, the Jugend Forscht foundation holds a series of regional, state, and national competitions to encourage research work by young scientists. In 2003, Siemens took on the task of organizing the foundation's competition for the whole of the state of Saxony.

In the United States we actively promote technology research in high schools through the prestigious Siemens Westinghouse Science and Technology Competition and through the Siemens Awards for Advanced Placement. These awards honor students who have shown exceptional academic performance in mathematics and the sciences.

#### ...and continues at university

Students at New Zealand's University of Auckland won the €25,000 Siemens Prize for Innovation for developing an intelligent road traffic information system – a field that's important for our Industrial Solutions and Services Group. This underscores how strategic partnerships with colleges and universities can create a win-win situation for both sides.

Eager to step up collaboration with technical universities and to build strategic partnerships, we began setting up Centers for Knowledge Interchange in Germany in 1998. The purpose of these centers is to provide a networked platform to enable a systematic transfer of knowledge between the universities and the company in order to develop and bring to market cutting-edge technologies and to foster up-and-coming generations of researchers. The technical universities in Aachen, Berlin and Munich are now part of this network, and there are plans to extend it to other countries.

## Helping people

Our citizenship activities and initiatives around the globe are as diverse as people's needs. One of the primary focuses of our efforts is on working to integrate people on the edge of society and on helping disadvantaged children. We also offer rapid aid when people encounter acute and sudden need – as a result of natural disasters or through the outbreak of deadly disease epidemics.

### United forces at work

In many places around the world, Siemens provides aid in the form of donations of cash or equipment. Our employees, too, are an important factor, with many of them volunteering their time to support education programs in schools and universities as well as social and community projects. The Siemens Caring Hands Foundation in the U.S. is a prominent example: During the past fiscal year, thousands of Siemens people volunteered many hours of their leisure time toward a variety of projects, including the cleanup of city parks, the renovation of housing and day care centers, the collection of food donations, and much more besides. The Corporate Citizenship Advisory Council, with members from every major Siemens company in the United States, works to develop, coordinate and implement projects as One Siemens.

In fiscal 2003, Siemens in France set up the Fondation Siemens with the goal of improving access to information technology for underprivileged groups. One of the foundation's first projects is to equip a children's hospital in Kabul, Afghanistan, with much needed medical equipment. Siemens employees are busy collecting and remanufacturing used equipment from all over Europe for the hospital.

### Promoting integration and tolerance

For a multinational company like Siemens, integrating countries' disparate population groups is no less important an issue than the promotion of diversity among our own employees (see the section on diversity on page 23). We therefore operate several long-term integration programs. In South Africa, for example, the YouthSpace project, now ten years old, helps house, feed, clothe and educate street children in Johannesburg. With the aid of social workers, the children also learn to overcome their traumatic experiences and to re-integrate with society. In May 2003, we were able to extend this program, adding a new house for girls in Port Elizabeth.

**SIEMENS CARING HANDS FOUNDATION:**  
[www.usa.siemens.com/SiemensCares](http://www.usa.siemens.com/SiemensCares)

### AROUND THE WORLD

**Vietnam:** Schools for children from underprivileged families receive aid from Siemens. **Finland:** Siemens funds emergency phone lines for children and young people in need of counseling and help. **Poland:** To mark the International Day of the Child on June 15, Siemens sponsored a party for 500 orphans in Warsaw. **Malaysia:** Siemens employees went on a health and fitness trip with low-income families. **Croatia:** Siemens sponsored the sailboat regatta Sails against Drugs, revenue from which went toward fighting drug abuse. **Bangladesh:** Siemens funds the translation of tuition materials from German into Bengali. **Mexico:** Siemens supports aid organizations that help underprivileged families. **Portugal:** Siemens employees assist relief organizations by collecting food for people in need. **Singapore:** Siemens co-organized the President's Challenge 2003 – Gladiathon, an annual fund-raising drive. **Brazil:** Siemens supports a project in Curitiba to train 60 people as youth drug counselors.

Integration was also key in a five-day Siemens-sponsored scout camp in Greece in the summer of 2003. Its goal was to encourage the 1,000 or so youngsters taking part to learn to respect one another, to assume responsibility for each other, and to protect the environment.

### Investing in the future

Children are our future – our next generations of employees, customers, and members of the communities in which we operate. We work to ensure that they can grow up in an intact social environment – well cared-for and well educated. Committed to creating better living conditions for children, Siemens has entered into a partnership with UNICEF Germany. The goal of this partnership is to recruit sponsor members to enable provision of baseline care, including food, water, inoculations and elementary education. To mark the reopening of Siemens' Kabul office, we also donated €20,000 to UNICEF to support a country-wide education campaign (see page 77).

### Emergency aid

The outbreak of the deadly pulmonary disease SARS in the spring of 2003 presented several countries in Asia – above all, China – with major problems. Our Regional Companies launched a number of aid initiatives in response. In China, Siemens donated €780,000 worth of respirators and mobile phones. In Hong Kong, Siemens assisted with preventive examinations of the elderly and donated breathing masks and protective suits. In Singapore, Siemens and a number of other companies paid for midday meals for hospital workers.

HIV and AIDS remain an acute human health problem, particularly in African countries. As a global company, Siemens has chosen to target this problem, too. Through our membership of the Global Business Coalition on HIV/AIDS alone, we donate US\$25,000 annually to help combat the disease. Eighty international companies are now members of the organization, formed in 1997, which works to control the spread of the immunodeficiency through health education, prevention, and health-care programs for company employees and their families, and through support for the work of governments and aid organizations. Many of Siemens' Regional Companies also operate their own support initiatives. We're especially active in South Africa, where Siemens has a workforce of more than 3,000 (see the sidebar on page 39).

#### UNICEF PARTNERSHIP

[www.siemens.com/unicef](http://www.siemens.com/unicef)

#### GLOBAL BUSINESS COALITION ON HIV/AIDS

[www.businessfightsaids.org](http://www.businessfightsaids.org)

#### CORPORATE CITIZENSHIP GUIDELINES

At our many locations around the world, we engage in a variety of citizenship programs and initiatives for the benefit of our host communities. To provide an organizational and strategic framework and to help manage these activities, we have established a common set of principles, recommendations and best practices. The nature and scope of our citizenship activities are defined at the local level, in line with local needs and priorities.



## INTEGRATING PEOPLE WITH DISABILITIES...

The Council of the European Union declared 2003 the European Year of People with Disabilities. The difficulties that people with handicaps face have been a focal issue for Siemens for many years, not just during EYPD. The company actively supports the interests of the disabled – as an employer and educator, as a creator and supplier of innovative products, and as the initiator and operator of the project “Computers help to heal and live,” which seeks to facilitate access to information technology for the disabled.

The fact that ten percent of the population in the European Union has some form of disability underscores just how urgently action is needed.



### ...in the workplace...

Siemens in Germany alone has 3,600 employees with disabilities, and 30 young people with disabilities are currently taking part in company vocational training programs. Our integration initiatives center on ensuring equal opportunities at all levels, better career opportunities in skilled occupations, expansion of telecommuting programs to create more jobs for the disabled, and quality occupational training for youngsters with disabilities.

### ...in training programs...

For several years now, Siemens in Austria has operated model training programs geared to people with disabilities. Since 1996, youngsters who are

deaf or hard of hearing have been able to take part in regular vocational programs, and during the last three years, 23 in total have successfully completed apprenticeship training. Our initiatives here recently earned us an award from Austria's federal welfare office and Caritas. Through the Blind-e training and qualification program, blind and partially sighted people in Austria are able to obtain qualifications in information and communication technologies.

### ...in everyday life...

With innovative high-tech products, we can increase the integration of the disabled and enhance their quality of life. Our Design for All approach and the Siemens Access Initiative play an important role here by assisting our operating units with the development of products capable of being used by people with and without disabilities. Collaboration with the SAI has improved the ease-of-use of

many products. The majority of Siemens mobile phones, for example, now feature special audio feedback to ease operation for the blind. The new SX1 mobile phone has a large, high-contrast display to improve legibility for partially sighted persons, and optional voice output is available to read out messages. Braille



reading aids and keyboards for computers have been available for some time now, and Siemens recently developed a Braille personal organizer for blind and partially sighted persons (see picture above). Another major boon for people with disabilities is the Sicare voice remote control. It uses sophisticated technology to translate voice commands into control codes that drive all kinds of home appliances and equipment, including TVs, phones, lighting, bed backrests, wheelchairs, emergency call systems, and computers.

There are new advances all the time. Currently, we are looking into ways to enable a variety of medical checks to be carried out directly at home – for example using sensors incorporated into items of apparel. These sensors send readings wirelessly to a receiver unit (say, a mobile phone), which transmits the data to a server on the Internet, where they are monitored by healthcare personnel. For the elderly and for people with disabilities, systems like this could prove extremely helpful by avoiding the often laborious process of visiting the doctor. Telemedicine processes developed as part of our Pictures of the Future visioning process will help to substantially enhance the possibilities of at-home health services and care.

## AROUND THE WORLD

**Egypt:** Siemens supports a special training center for children with mental handicaps. **Russia:** In St. Petersburg, we sponsor a rehabilitation center for children with paraplegia. **China:** Through the “Back to the world of sound” program, Siemens employees sponsor special training and elementary education for children with impaired hearing. **India:** Siemens donated hearing aids to 36 youngsters with impaired hearing. **Belgium:** We gave grants to a project to help people with impaired hearing and to a foundation for homes for people with disabilities. **Germany:** The SiemensForum in Berlin organized a panel discussion for carers on looking after people with disabilities. **Cambodia:** Siemens assists the victims of landmines by supporting residential rehabilitation programs and by helping them to find jobs.

## Overcoming barriers with art

Superficially, at least, art and culture may seem to have little to do with a company specializing in electronics and electrical engineering. But they do share common ground: Both are transnational in character, and both are a creative force with the capacity to drive new developments. Also, art is as richly diverse as its creators, and we seek to promote similar diversity within the company, in the societies we serve, and in art.

### THE FOUNDATIONS

The Ernst von Siemens Music Foundation, a private foundation based in Zug, Switzerland, is renowned internationally in the world of music for its support of young composers, ensembles, and musicological organizations. Each year, it honors an outstanding composer, performer or musicologist with the highly regarded Ernst von Siemens Music Prize. In 2003, the prize, which is endowed with €150,000, was awarded to a German composer, Wolfgang Rihm. The foundation also awarded grants worth €1.15 million to ensembles and composers.

The Ernst von Siemens Art Foundation, set up by the founder on the occasion of his 80th birthday, provides loans and grants to art collections to help finance exhibitions, the purchase of important works, and the publication of catalogs. Last fiscal year, for example, to mark the 150th anniversary of Munich's Neue Pinakothek museum, the Foundation helped to fund the remodeling of the Rottmann Hall.

[www.evs-musikstiftung.ch](http://www.evs-musikstiftung.ch)

### The Siemens Arts Program

Sponsorship of the arts has a long tradition at Siemens, reaching back to Ernst von Siemens (1903–1990), one of our founder's grandsons, who was a devoted patron of the arts. For Siemens, cultural programs play an active part in forging our relationship with the public at large.

With the founding of the Siemens Arts Program in 1987, the company's cultural initiatives became concentrated in a kind of social research department. Bringing together culture, business and society, these initiatives enable artists and cultural institutions all over the world to transform their visions into reality and to actively advance and develop contemporary art forms. At the same time, we seek to raise Siemens employees' awareness of current trends in the art world. In association with partner organizations, we initiate, plan and carry out a range of art and cultural projects. Our focus is on contemporary artists, areas of art, and perceptions of art that seek to redefine boundaries, that address future-focused issues, and experiment with new, innovative and pioneering forms of artistic expression. The Siemens Arts Program has chosen deliberately to take a progressive stance, seeking to promote the breaking of new ground in the artistic sphere in the same way that our business thrives on innovation.

One prominent example of our work is *Entraînements*, a series of performances – mainly dance – at a number of locations in Paris during September 2003. Consisting of a variety of actions, activities and interventions in public, *Entraînements* sought to superimpose the theatrical experience on an everyday context.

Western society today has developed a taste for calculated risk, as can be seen from the growing popularity of extreme sports. Against the background of this new culture of risk, the exhibition *At your own risk*, hosted by the Schirn Kunsthalle in Frankfurt/Main, Germany, during the summer of 2003, focused on encouraging visitors to step out of their traditionally passive role as consumers and risk interacting with the exhibits.

### Local sponsorship programs

Parallel to the central Siemens Arts Program, many of our Regional Companies operate their own programs to promote art and culture. The range of activities and initiatives is as richly varied as the countries themselves.

Siemens USA, for example, is continuing its Artists in Residence program as part of the international Silk Road Project. After Uzbek composer Dimitri Yanov-Yanovsky, who spent two months in 2002 composing music at the Siemens Hearing Instruments facility in Piscataway, New Jersey, the next resident artist was Tamami Tono from Japan. Tono spent April and May 2003 at our research center in Princeton, where she sought to build a bridge between traditional Japanese music and the latest technology with her composition *Sheishinga: The Legend of Two Stars*. This work was performed for Siemens employees and the general public at the Japan Society in New York.

Siemens in Belgium has used art to create a sanctuary for workers at a new office and conference building in Huizingen. Jozef Legrand, a Belgian artist, designed a central garden – a microcosm of nature with a rich variety of plants, modern sculptures and a *pétanque* field – where employees can relax and seek inspiration.

In Ireland, Siemens' cultural programs consist mainly of initiatives to promote music. These include a classical music competition, Siemens Feis Ceoil, held each spring. Open to anyone eight years of age or older, it lasts two weeks and consists of 170 individual competitions for voice, composition, and all kinds of instrument. The competition has attained nationwide importance for the development of musical talent. In 2003, the competition drew a record 8,000 contestants, with Siemens receiving a national award for best business to arts sponsorship from its peers.

Siemens in Norway takes a different direction. Here, a key focus is on the people responsible for the technical work behind the scenes on opera and theater stages, and their role in building a bridge between art and technology. Their creative and advanced solutions for lighting, sound and special effects provide a crucial supporting framework for the artistic performances on stage, helping to create new and exceptional productions. In 2003, Siemens launched the annual Arts and Techniques award to honor outstanding achievements in these professions.

#### SIEMENS ARTS PROGRAM:

[www.siemens.com/artsprogram](http://www.siemens.com/artsprogram)

#### SILK ROAD PROJECT:

[www.silkroadproject.org](http://www.silkroadproject.org)

#### AROUND THE WORLD

**Slovakia:** Siemens sponsors the city of Bratislava's Cultural Summer festival.

**Singapore:** Students of the LaSalle-SIA College of the Arts were invited to help design the new Siemens Center. **Spain:**

Siemens sponsors concerts of classical music. **Hungary:** Siemens provided support for the country's foremost cultural event, the Budapest Spring Festival. **Lithuania:** For three years now,

Siemens has been a sponsor of the National Opera and Ballet. **Kosovo:** Thanks to support from Siemens, the National Theater in Prishtina is again able to put on international and local plays. **Serbia:** To help young Serbian filmmakers, Siemens sponsored the "Days of the young Serbian film" festival in Vienna. **Switzerland:** For a number of years now, Siemens has been a regular sponsor of the Classic Openair concert series in Solothurn. **Portugal:**

Siemens sponsors exhibitions by young painters and photographers.

# Our vision: A world shaped by human ingenuity and enhanced by our technology



Siemens' Regional Company in Austria has existed for 125 years. A look back at its early history reveals a situation fundamentally similar to ours today. Then, as now, technologies that would later open up completely new opportunities to shape our lives were still in their infancy: electric power, the internal combustion engine, the telephone. Siemens, extensively involved as it was in every key technological development, built on each new advance to help create a society – in Austria just as in other countries – with unlimited mobility and communication, sophisticated automated industrial manufacturing, and high standards of health care.

## Pioneering spirit is still key

Today, early in the twenty-first century, the ability to innovate is no less important than it was in the early days of the company. Through continuous innovation, we can use intelligent technologies to transform into reality a compelling vision of a networked world that offers equal opportunities for work, health, mobility and good living standards for as many people as possible.

Siemens in Austria faces an additional challenge: After years of steady business growth, we are gearing up for a rapid leap forward as expansion in the economies of Central and Eastern Europe begins to accelerate. The company has been assigned business responsibility for six of the region's countries – Slovenia, Slovakia, Croatia, Romania, Bosnia and Herzegovina, and Serbia and Montenegro – which now combine with Austria to form a single operations area. This operations area is to provide the basis for future growth for Siemens Austria. The opportunities look excellent: Experts predict an annual growth rate of 8.5 percent for the electrical and electronics sector in Central and Eastern Europe. One reason for this positive outlook is the prospect of gradual enlargement of the European Union to include the countries in this region. Programs currently underway to bring the local infrastructure up to EU standards are already providing an important stimulus to these countries' economies.



### Unprecedented growth for Siemens Austria

During the second decade of the millennium, sales throughout the Central and Eastern European economic area will likely be twice as high as they are now, so Siemens in Austria's new motto is "Think big." Albert Hochleitner, who heads up the company, expects the historic pattern of steady business growth to continue and expand. Says Hochleitner, describing his strategic goals: "We expect each country in our Central and Eastern European economic area to achieve a percentage point gain in market share each year." This means that the company will grow faster than the region's markets.

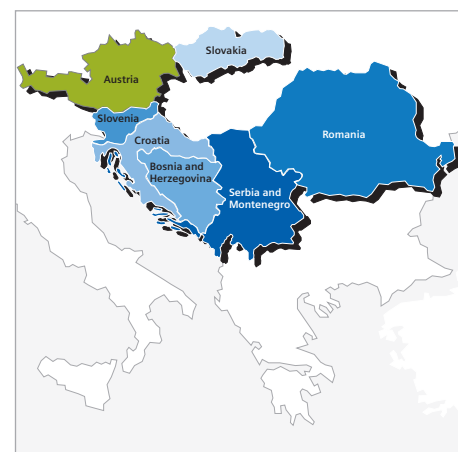
Given the markets' size and structure, achieving a strategic spread of competency and value creation across the whole of the economic area is the way forward. Competence centers responsible for specific segments will be set up in different countries to supply solutions to the whole of the region. Together with Siemens Program and System Engineering PSE, Siemens Business Services in Austria offers IT-based administration solutions designed to enable government offices and agencies to prepare for entry into the European Union.

### Building success on innovations

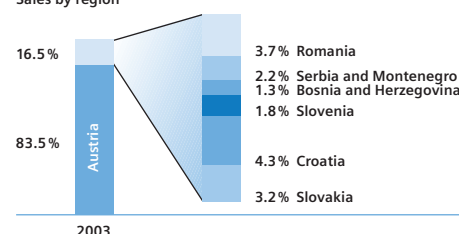
At the end of the day, our ability to innovate is the key success factor in the growth strategy we have mapped out for our economic area. In its 125th year, Siemens Austria remains an innovative company, and its large number of innovations and patents over the years have earned it a special standing within Siemens as a whole that belies its size. With Siemens Program and System Engineering PSE, Siemens Austria has a think tank that creates new technologies and adapts existing technology to customers' specific needs.

"Our employees' intellectual potential is one of our most important assets," Hochleitner emphasizes. "To make that potential easier to tap for the rest of the company, we are setting up a system of intellectual asset management." This system will actively encourage employees to submit promising ideas. Employees receive additional incentives if their suggestions have the potential to translate into benefits for our business.

To help improve Siemens Austria's competitive position financially, the company set up the Cash League. Its goal is to improve the efficiency with which the company manages its assets. We have already identified the league's first winners. In spite of concentrating on growth in profitability, competitive strength, and innovation, Siemens Austria has not lost sight of other factors relevant to sustained business growth.



Siemens Austria: Central and Eastern Europe economic area  
Sales by region



Our Regional Company in Austria already generates more than 16 percent of its annual sales in the countries it serves in Central and Eastern Europe.

### Modern solutions improve our environmental performance

Siemens in Austria was early in adopting an environmental policy and in setting up a department to take care of environmental affairs and to implement environmental programs. Today, the company continues to develop and refine ways to enhance energy efficiency, waste reduction and waste separation in manufacturing. Our Vienna electronic components plant has now received its second Ecoprofit award from the city of Vienna as part of the latter's

EcoBusinessPlan program. At the same time, Siemens Austria offers a range of products, solutions and services designed to benefit the environment. To mark the International Year of Water in 2003, our Industrial Solutions and Services Group substantially extended its offering of water supply and disposal solutions. One of the interesting specialty products created for environmentally sensitive regions is a fully biological wastewater treatment system for mountain cabins, which,

besides lowering water consumption, breaks down pollutants in water into harmless residues.

We promote the conservation of energy by offering performance contracting solutions. Thanks to comprehensive modifications to building and lighting systems by Siemens Building Technologies, 23 Vienna schools now consume substantially less energy, and the cost savings are recovering their investment. The market for performance contracting solutions in Central and Eastern European countries is enormous. For example, the energy consumed by street lighting in Bratislava, Slovakia's capital, dropped from 9.6 megawatts to 5 megawatts in eight months after modernization work by Siemens. This saving covered the costs of the modernization and maintenance.

### Engaging the public in dialogue

One hundred and twenty-five years of Siemens in Austria are also 125 years of history and political and social change. Siemens today faces an increasingly well-informed and critical public, a public that wishes to know what our company stands for and what kind of contribution it makes to humankind and to society. We engage in a wide variety of projects that aim to answer these



New city lighting in Bratislava saves energy and cuts costs. The savings on power are used to finance the modernization and maintenance work.

The SiemensForum in Vienna is an important interface between the company and the public at large. It is also the campus of our Academy of Life, a training and education initiative launched by Siemens to enable younger generations of managers to learn from luminaries in a number of different fields. Prominent guests in 2003 included the writer Donna Leon, the market researcher and publicist Elisabeth Noelle-Neumann, and the model, writer, and UN Special Ambassador Waris Dirie.

Our current image campaign, Spin the Globe!, takes up ideas in several areas – technology, knowledge, culture, society, and the environment – and publicizes them. On the Internet, we offer those wishing to bring a positive influence to bear on technological or societal advances a platform on which they can present their projects to the general public. We presented our first Spin the Globe! Award in May 2003.

Siemens' community initiatives in Austria focus on helping the helpers. An important project for us – one we have supported since 1997 – is the Bienenhaus therapy center, a facility operated by SOS Children's Villages. The center takes care of children with substantial behavioral difficulties stemming from sexual abuse or violence. We will be widening the scope of this project to encompass Central and Eastern Europe.

For Siemens, active participation in research and education in Austria is of special importance. We have partnered a large number of schools, colleges and universities with the goal of supporting interesting research programs and projects. Our efforts in this area not just help to build a bridge between the research community and industry, they also encourage collaborative projects with places of higher education and enable us to establish ties with potential employees, partners, and customers.

### Supporting young art

In 1996, we set up Austria's first Internet art gallery – at [www.artlab.at](http://www.artlab.at) – to help up-and-coming young artists reach a wider audience and to create a marketplace through which they can offer their work for sale. Parallel to this web platform, we have a bricks-and-mortar gallery in Vienna which exhibits a compelling mix of young art and advanced tech. Here, technical innovations vie with works by artLab artists for visitors' attention. Two art programs – the Kunstraum Mitteleuropa initiative and the CENTRAL project – were launched through the Siemens artLab platform to showcase works by artists from Central and Eastern Europe. Exhibitions are also constantly taking place in the countries of our economic area.



Modernization of a garbage incineration plant in Bratislava, just 50 kilometers from Vienna, has led to a marked improvement in air quality. Just as it has in Slovakia, Siemens is also modernizing power generating facilities and improving the power supply infrastructure in other countries in its economic area. High-efficiency modern power plants, along with measures to save energy, are helping these countries to preserve valuable resources and to make important progress toward achieving the targets laid out in the Kyoto Protocol.

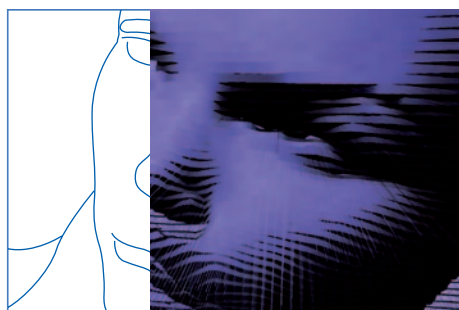
**SPIN THE GLOBE! CAMPAIGN:**  
[www.siemens.at/spintheglobe](http://www.siemens.at/spintheglobe)



Our first Spin the Globe Award went to A Letter to the Stars, a project in which school students researched what happened to Holocaust victims from their local region.

Modern technology provides a basis for all of our sponsorship activities. It serves as a transfer medium, helping to break down barriers and make art and culture more accessible. At the same time, we want to highlight the influence of high technology on culture and its significance as a force for innovation in art. One initiative in this area is our LITERATniktechTUR events program, which also includes a prize for literature, awarded for the fifth time in 2003.

Siemens Austria is a leading sponsor of the Salzburg Festival. Here, too, we apply the very latest technology to the task of making art accessible to as wide an audience as possible. Last fiscal year, we held the Siemens Festival Nights – for the second time – on Salzburg's Residenzplatz, where we did live, open-air broadcasts of concerts for more than 35,000 visitors.



For many years, we have sponsored the Ars Electronica Center in Linz, a museum of the future, where visitors can experience how information and communication technologies are changing our lives. Justin Manor, a U.S. artist, was Siemens' artist in residence in the Ars Electronica Futurelab in 2003. His work there focused on real-time manipulation of video and audio, and the use of the body to control media events.

### Committed to good citizenship

Siemens Austria takes seriously its responsibility for the welfare of its employees, and a healthy and motivated workforce is extremely important to us. Our employee-based initiatives therefore include our own health and fitness program, which offers a wide choice of seminars on a variety of health issues. To help our people balance work and home life better, we have also set up company childcare centers, open year-round, close to our major locations in Vienna.

We have developed new training and employment models for people with special needs. Today, we train youngsters who are deaf or who have hearing difficulties in programs conducted with the assistance of interpreters for the deaf, who also develop new gestures for technical terms. In addition, we utilize state-of-the-art information technology to help integrate people who are blind or have severely impaired vision (see page 49).

Many of these activities are to be widened to include Central and Eastern Europe. When we expand our business operations, we pay special attention to promoting the creation of local content and jobs. Siemens Austria is committed to being both an integral part of local economies and a good corporate citizen throughout its operations area. Our goal is to create solid foundations for future business growth while at the same time supporting and advancing the communities and societies in which we do business.



## Facts and figures 2003

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## Our innovations for tomorrow's world

### Notes to the scenario of the future on pages 8 and 9

We can only produce reliable, on-target solutions to tomorrow's problems if we have a clear perception of the challenges ahead of us. We work to develop views of the future that are as probable and as realistic as possible so as to ensure that the technologies we create today have a positive influence on people's lives tomorrow.

We already have an accurate notion of certain aspects of society and humankind's needs 20 years from now, because these needs will not be all that different from ours today – health care, education, energy, mobility, and housing to name just a few. Siemens develops highly innovative, future-oriented technologies and products for each of these areas.

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### Mobile health monitoring equipment

Telemedicine will play a far greater role in the future than it does today. It has the potential to revolutionize health monitoring by allowing checks to be conducted away from stationary systems in a doctor's office or hospital (see page 49). Examples include special EKG foils worn directly over the heart ①, beneath clothing, which transmit cardiac data wirelessly to healthcare personnel, and portable patient monitoring equipment ②. Conducting a comprehensive full-body health check at a medical service center will likely take just two hours to complete ③, because imaging systems will be faster and more efficient, introducing a new level of comfort and convenience for patients. Also, electronic patient records will enable instant access to detailed case histories.

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### Learning on the intranet

Gradually, training and education ④ will no longer involve attending a bricks-and-mortar campus. Today, for example, Siemens has already merged a number of its employee training programs in a virtual learning campus. We will continue to hold plenty of conventional classes and seminars, but electronic media will doubtless play an expanding role in learning, both in the workplace and at home.

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### Increasing transportation's environmental compatibility

We are working on ways to limit the environmental impact of mobility as far as possible and to reliably handle growing traffic volumes in congested urban areas. They include increasingly quiet, fast, and economic rail systems ⑤ coupled with intelligent traffic management systems that help private and public transport ⑥ to interlock efficiently, and new piezo valves ⑦ that dramatically reduce emissions and lower gasoline engines' fuel consumption to levels comparable with those of diesel engines (see page 31).

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### Efficient energy production

As our energy needs increase, natural resources are declining. One way in which we help to alleviate this problem is with our advanced power plant technology – above all, our combined cycle power plants ⑧, which today achieve efficiencies of up to 58 percent (see page 29). Renewable energy sources such as wind power also offer a way forward ⑨, which is why Siemens is involved in the construction of wind parks out at sea.



### Turning walls into video screens

When it comes to tasks like managing traffic or controlling building systems, fast, efficient and reliable transportation of information is crucial. The increasing miniaturization of components and the advent of completely new materials and products will lead to enormous progress in this area. In the future, organic light-emitting diodes (OLEDs) will enable the manufacture of displays using ultra-thin plastic foils <sup>⑩</sup>, capable of turning the walls of buildings into huge, low-power video displays <sup>⑥</sup> (see page 30).

### Sensors in wall paint

Advances in semiconductors will eliminate the need for installing and wiring up sensors in building walls to control heating, ventilation and air conditioning systems. The paint used to decorate rooms will contain tiny semiconductor modules – micro electro-mechanical systems (MEMS) – capable of transmitting information wirelessly <sup>⑪</sup>.

### Totally mobile communication

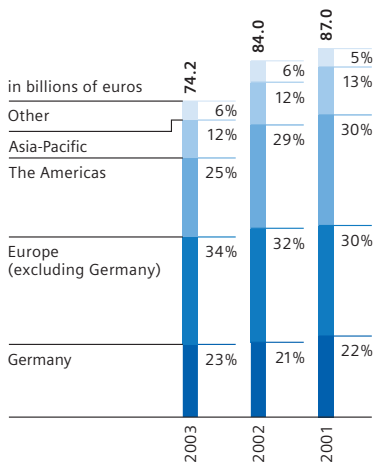
New media and means of communication will change the way we work. For example, we may soon be using holographic images <sup>⑫</sup> of objects instead of two-dimensional screen projections as visual aids in technical meetings. As mobile phones and computers shrink in size, we will no longer need special carrying cases for them. Phones will soon be replaced by tiny, in-ear buttons <sup>⑬</sup>, and PCs will be sufficiently small and light to fit into almost any pocket <sup>⑭</sup> (see page 13).



# Siemens at a glance

## This is Siemens

Siemens is a global leader in electrical engineering and electronics. For 157 years, our name has been synonymous with cutting-edge technologies and continuous growth in profitability. Our portfolio comprises six business areas: Information and Communications, Automation and Control, Power, Medical, Transportation, and Lighting. Operating in these areas, we have a number of different Groups, each one an entrepreneurial unit responsible at the global level for its own development, manufacturing and sales activities. Our Groups operate 316 manufacturing units in total. Siemens also has sales units in almost all of the world's countries. Our 64 Regional Companies operate as entrepreneurs at the national level. Thanks to a strong global presence, we are able to maintain exceptional customer focus and align our activities closely with customers' needs. As a GLOBAL NETWORK OF INNOVATION, we help create a better world with our products and services.



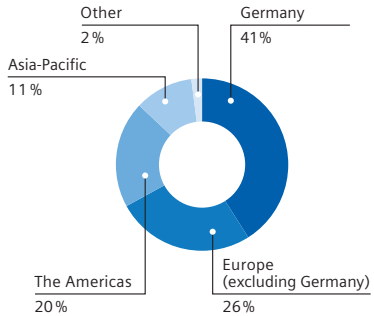
## Sales by region

Adjusted for currency effects and portfolio activities, Siemens' sales in fiscal 2003 dropped 4 percent, year on year, to €74.2 billion. Germany accounted for 23 percent of sales, or €17.1 billion. In the U.S., sales were down substantially from their year-earlier level at €15.4 billion. This change was driven by volume declines at our Power Generation Group following the end of the gas turbine energy boom and by a negative currency translation effect. Sales in the Asia-Pacific region remained stable at €8.7 billion, whereas in China, the region's largest market, currency effects caused a drop from the prior-year level of €3.2 billion to €2.8 billion in fiscal 2003.

## Our employees

At the end of fiscal 2003 (September 30), Siemens had 417,000 employees worldwide – 9,000 fewer than a year earlier. This total included 170,000 in Germany and 108,000 in other European countries. The region with the third-largest workforce was North America with 69,000, followed by Asia-Pacific with 44,000. Siemens had 18,000 employees in South America, and 8,000 in other regions (Africa, the Middle East, and the C.I.S. countries).

Siemens has 112,000 female employees. Last fiscal year, women accounted for 27 percent of our global workforce and 34 percent of our total new hires of 32,200 people. Thirty-four percent of our new hires hold university degrees. During the past fiscal year, 12,000 young people were enrolled in company training programs spanning 35 different professions.





## Financial highlights

(in millions of euros)	2003 <sup>1)</sup>	2002 <sup>1)</sup>
<b>New orders</b>	<b>75,056</b>	<b>86,214</b>
<b>Sales</b>	<b>74,233</b>	<b>84,016</b>
<b>Net income</b>		
Excluding a gain on sales of shares of Infineon	2,445	1,661
Gain on sales of shares of Infineon	–	936
<b>Total net income</b>	<b>2,445</b>	<b>2,597</b>
<b>Net cash provided by operating activities</b>	<b>5,712</b>	<b>5,564</b>
<b>Net cash used in investing activities</b>	<b>(3,939)</b>	<b>(810)</b>
<b>Research and development expenses</b>	<b>5,067</b>	<b>5,819</b>
– as a percentage of sales	6.8	6.9
<b>Shareholders' equity (September 30)</b>	<b>23,715</b>	<b>23,521</b>
<b>Employees (September 30, in thousands)</b>	<b>417</b>	<b>426</b>

<sup>1)</sup> Fiscal year: October 1 – September 30

## Investments in research and development

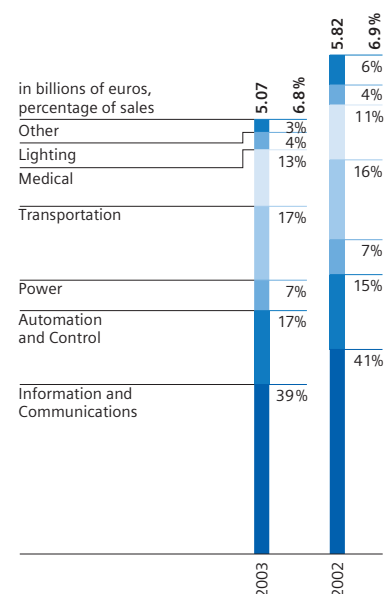
Siemens spent €5.1 billion (6.8 percent of sales) on research and development in fiscal 2003, or €23.2 million every workday. Most of our R&D outlays flow into information, communications, and automation technologies. Embedded software is playing an expanding role in our products and systems, performing a growing range of functions in everything from communications networks and mobile phones to vehicle navigation systems, railway automation solutions, automation systems for industry, control technology for power plants, and medical systems.

Our almost 50,000 employees in research and development aim to generate customer value by creating innovative products, systems and services and to set the pace in as many areas of our business as possible. Critical success factors include systematic innovation planning, leadership in key strategic technologies, a strong patent portfolio, and optimized innovation processes.

## International corporate responsibility partnerships and the DJSI

Our membership in a number of prominent organizations in the field of corporate responsibility attests to the high importance we as a company place on this issue as a whole. For example, Siemens is a member of the World Economic Forum's Global Corporate Citizenship Initiative; in November 2003, we joined the United Nations' Global Compact Initiative; and in early 2003 – to mark Unicef Germany's 50th anniversary – Siemens entered into a strategic partnership with Unicef, primarily with the goal of helping to recruit new sponsor members for the organization.

Since 2000, Siemens has been listed on the Dow Jones Sustainability Indexes (DJSI). These indexes track financial and other performance indicators – such as environmental management, corporate citizenship, and long-term profitability – of leading companies worldwide.



## The pillars of our business

### Our Principles

- We strengthen our customers to keep them competitive
- We push innovation to shape the future
- We enhance company value to open up new opportunities
- We empower our people to achieve world-class performance
- We embrace corporate responsibility to advance society

[www.siemens.com/principles](http://www.siemens.com/principles)

### International organizations' guidelines

- The United Nations' Universal Declaration of Human Rights (1948)
- The European Convention for the Protection of Human Rights and Fundamental Freedoms (1950)
- The International Labour Organization's (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (1977)
- The ILO's Declaration on Fundamental Principles and Rights at Work (1998)
- The Organisation for Economic Co-operation and Development's Guidelines for Multinational Enterprises (2000)
- The UN's Agenda 21 on sustainable development (1992)

[www.siemens.com/business\\_conduct\\_guidelines](http://www.siemens.com/business_conduct_guidelines)

Any organization or community can only function successfully in the longer term if its members subscribe to a common set of values. Companies like ours are no exception. At Siemens, we have framed our values for our employees worldwide in our Corporate Principles. These Principles serve to express our perception of ourselves and to offer guidance.

### Our Business Conduct Guidelines

We base our strategic planning and our day-to-day business practices on high ethical and legal standards. Our Business Conduct Guidelines – globally binding rules that apply to every Siemens employee and require us to abide by laws, to show mutual respect, and to act honestly and with integrity – set the basis for our conduct. Every two years, our managerial employees sign a pledge renewing their commitment to uphold these rules. We have officers at company headquarters and in our Regional Companies and Groups to whom employees can turn for advice when confronted with an ethical conflict situation.

We conduct audits to ensure that our regulations on work safety and healthcare provisions and on protection of the environment are being implemented properly worldwide, and we offer our Regional Companies any advice and support they may need. We have also introduced strategic and organizational guidelines on corporate citizenship to establish a global framework to channel the wide range of initiatives undertaken by our operating units and regional units within their local communities.

Our Principles and our Business Conduct Guidelines form part of the curricula in our training programs for junior employees. Our management training programs address corporate responsibility in its various facets and provide practical examples from within our Regional Companies and Groups.

In addition, there is a number of conventions and recommendations from international organizations. They are primarily addressed to Member States and not directly to companies. Nonetheless, they are important guidelines for the conduct of multinational companies and their employees. Siemens therefore emphasizes the importance of being globally in accordance with these guidelines. For Transparency International, a respected global non-governmental organization, we have signed a pledge to actively combat corruption.

### top<sup>+</sup> Siemens Management System

At the beginning of fiscal 2004, we updated our top<sup>+</sup> Business Excellence Program to create the top<sup>+</sup> Siemens Management System. Building on Siemens' visions, goals, and principles, its purpose is to rigorously implement the company's strategy. We are currently concentrating on three company-wide programs, *Innovation*, *Customer focus*, and *Global competitiveness*, designed to further optimize our performance and processes in different areas. The goal of our *Innovation* program is to position Siemens as a premier innovator; our *Customer focus* program sets out to intensify our customer relationships worldwide and to increase utilization of market potential; and the objective of our third company program, *Global competitiveness*, is to optimize value creation.

To support the goals of the top<sup>+</sup> Siemens Management System, we have reorganized our competency building and development programs for managerial employees. All company training initiatives have now been combined within our newly formed Learning Campus. We have also reorganized and streamlined our managerial organization structure, processes and events schedule, including our global and regional management conferences and programs.

With this updated and realigned management system, we can steer the company with greater precision and efficiency and leverage Siemens' traditional fortes – a robust portfolio, innovative strength, customer focus, a global presence, and sound financial management – to build a market-leading competitive position.

## Corporate governance

Good corporate governance has traditionally been a high priority at Siemens. Because its registered offices are located in Berlin and Munich, Siemens is subject to German corporate law. Consequently, the company has a two-part management and oversight structure comprising a Managing Board and a Supervisory Board.

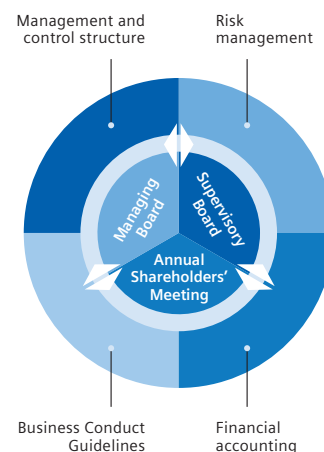
The **Supervisory Board** oversees and advises the Managing Board in its management of company business. At regular intervals, it discusses business development, planning, strategy and implementation. It also reviews Siemens' quarterly reports and approves the annual financial statements of Siemens AG as well as the consolidated financial statements of Siemens worldwide, taking into account both the audit reports provided by the independent auditors and the results of the review conducted by the Audit Committee. In addition, the Supervisory Board appoints the members of the Managing Board, determines their remuneration and allocates their responsibilities. Important Managing Board decisions – such as major acquisitions, divestments and financial measures – require Supervisory Board approval.

The **Managing Board** of Siemens AG, which currently has twelve members, is the company's top management body. It is obligated to promote the interests of the company at all times and to drive sustainable growth in company value. As of December 2003, the Managing Board's executive committee, the Corporate Executive Committee, will have seven members. The Chairman of the Managing Board defines overall company policies in cooperation with the Corporate Executive Committee. The Managing Board's responsibilities include determining the company's strategic orientation, planning and finalizing the company budget, allocating resources, and monitoring the executive management of each Group. Furthermore, the Managing Board directs the preparation of the company's quarterly reports, the annual financial statements of Siemens AG and the consolidated financial statements of Siemens worldwide. It also selects personnel to fill key company positions.

The Managing Board cooperates closely with the Supervisory Board. It informs the Supervisory Board regularly, promptly and comprehensively regarding all issues related to company strategy and strategy implementation, planning, business development, financial position, earnings and emerging risks. Major decisions of the Managing Board require Supervisory Board approval.

Four times a year – at dates specified in a financial calendar – Siemens reports to its **shareholders** regarding its business development, financial position and earnings. An ordinary Annual Shareholders' Meeting normally takes place within the first four months of each fiscal year.

As part of our investor relations activities, the CEO, the CFO and individual members of the Group executive managements meet regularly with analysts and institutional investors. We hold a conference for analysts once a year as well as telephone conferences with analysts upon the publication of our quarterly results. Our website provides access to financial data and other business-related information regarding Siemens worldwide.



### CORPORATE GOVERNANCE:

[www.siemens.com/corporate\\_governance](http://www.siemens.com/corporate_governance)

### INVESTOR RELATIONS:

[www.siemens.com/investor\\_relations](http://www.siemens.com/investor_relations)

# Our operating Groups

Siemens' business portfolio consists of six business areas: Information and Communication, Automation and Control, Power, Transportation, Medical, and Lighting. Our operating Groups have worldwide business responsibility within each of these areas. We also have financial services and real estate businesses.

## Information and Communications

### Information and Communication Mobile (ICM)

ICM supplies terminal equipment, infrastructure solutions and applications that cover the whole of the mobile communications business.

### Information and Communication Networks (ICN)

ICN offers business customers, network operators and service providers IP-based convergence solutions for voice and data, a comprehensive range of solutions for broadband access, and optical transport networks.

### Siemens Business Services GmbH & Co. OHG (SBS)

SBS's services span the whole of the IT services chain – from consulting to systems integration and the management of IT infrastructures.

## Automation and Control

### Automation and Drives (A&D)

A&D is a full-line supplier of standard products, electrical installation equipment, systems, and industry-tailored solutions for the manufacturing and processing industries.

### Industrial Solutions and Services (I&S)

I&S's offering includes solutions and services for the entire life cycle of industrial plants and infrastructure installations.

### Siemens Dematic AG (SD)

SD specializes in the planning, manufacture, installation, operation and servicing of systems and plants for manufacturing and logistics applications.

### Siemens Building Technologies AG (SBT)

SBT offers building owners and operators building services, control systems and equipment to control heating, ventilation and air conditioning systems.

## Power

### Power Generation (PG)

PG develops components and systems for power generation and offers a range of service solutions.

### Power Transmission and Distribution (PTD)

PTD offers products, turnkey systems, and services for the safe and efficient transportation of electrical energy from power plants to consumers.



## Transportation

**Transportation Systems  
(TS)**

TS is a systems integrator and turnkey supplier of rail vehicles, signaling and control systems, automation systems, railway electrification systems, and telecommunications systems for rail traffic.

**Siemens VDO Automotive AG  
(SV)**

SV manufactures engine and power train management systems, induction, carburetion, and exhaust components, infotainment systems, driver information systems, and car body electronics.

## Financing and Real Estate

**Siemens Financial Services GmbH  
(SFS)**

SFS is Siemens' financial services segment. The unit offers an extensive range of financing solutions to industrial and services companies and to clients in the public sector.

**Siemens Real Estate  
(SRE)**

SRE's services include portfolio management, real estate development, real estate disposals, and lease and service management.

## Medical

**Medical Solutions  
(Med)**

Besides developing innovative diagnostic and therapeutic solutions, Med also offers solutions and services to optimize workflow in hospitals and doctors' offices.

## Lighting

**Osram GmbH**

Osram designs and manufactures lamps and lighting systems for a range of target groups and applications, including general lighting, automotive, and photo-optic lighting.

## Key figures for 2003

### How we collect data

On the pages that follow, we present figures and information for Siemens worldwide regarding our business activities, our workforce, our environmental performance and our citizenship initiatives. In a company with 64 Regional Companies, more than 300 manufacturing locations and over 400,000 employees, gathering this data is a logistical challenge. Also, in many instances, our Regional Companies are required to comply with national regulations governing what data they collect and how that data is collected and disseminated, so the figures submitted do not always share a common baseline.

We have come a long way toward achieving data system compatibility worldwide, but we still encounter new situations that call for harmonization, particularly following acquisitions. This means that collecting data on a global scale is a costly and time-consuming process. We are therefore careful when it comes to deciding which information has the potential to improve the quality of our reporting and at the same time help us to manage our business more efficiently. Our dialogue with partners, investors, customers, and other stakeholders additionally provides us with valuable input and ideas.

### Collecting HR data

We have developed new, unified, intranet-based information systems and have phased them in at our locations around the world. We collect information on our employee base annually through our HR Net Report, a system that we have deployed at 130 Siemens companies outside Germany during the past two years. We record information on 90 percent of our workforce by collecting HR data in around 40 percent of our operating units. We then extrapolate this employee data for Siemens as a whole.

### Environmental information platform

We have set up an internal environmental reporting platform, the Siemens Environmental and Technical Safety Information System. The system covers roughly 75 percent of our locations around the world.

### Gathering information on citizenship projects

We collect information on projects described in the corporate citizenship section of this report by sending out requests each year to our Regional Companies. Due to the high response rate and the large number of reports received, we can only present a selection of examples here. Our goal, therefore, is to present a variety of topics and regional focuses while maintaining continuity of structure.

## Business excellence

### Stock market information

Siemens' net income in fiscal 2003 was nearly 50 percent higher than the comparable figure a year earlier. The stock market responded positively to this performance: By the end of the fiscal year, our stock price had risen to almost €60 – up from a little over €30 in March 2003. In fiscal 2004, we want to follow our motto "Go for profit and growth!" and improve continuously.

in euros	2003 <sup>1)</sup>	2002 <sup>1)</sup>
<b>Stock price range</b> (XETRA closing prices, Frankfurt)		
<b>High</b>	<b>58.32</b>	78.52
<b>Low</b>	<b>32.05</b>	34.00
<b>Year-end</b>	<b>51.14</b>	34.00
<b>Number of shares</b> (year-end, in millions)	<b>891</b>	890
<b>Market capitalization</b> (year-end, in millions of euros)	<b>45,559</b>	30,273
<b>Per-share data</b>		
<b>Earnings per share</b>	<b>2.75</b>	2.92
<b>Earnings per share</b> (fully diluted)	<b>2.75</b>	2.92
<b>Dividend</b> (comparable)	<b>1.10<sup>2)</sup></b>	1.00

Figures reflect the stock split of April 30, 2001 (one additional share for every two shares held).

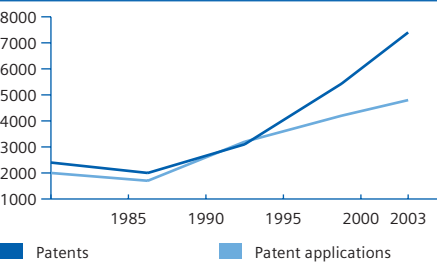
<sup>1)</sup> Fiscal year: October 1 to September 30

<sup>2)</sup> To be proposed at the Annual Shareholders' Meeting

### Highlights in fiscal 2003

- Net income for fiscal 2003 was €2.445 billion, representing a 47 percent increase from €1.661 billion a year earlier excluding a tax-free gain of €936 million from sales of Infineon shares.
- Group profit from operations increased to €4.295 billion in fiscal 2003 from €3.756 billion in fiscal 2002. The majority of Siemens Groups reported higher earnings and margins year-over-year.
- Net cash from operating and investing activities was €1.773 billion.
- Adjusting for currency effects and portfolio activities, sales and orders were 4 percent and 5 percent lower, respectively, than a year earlier.
- Siemens' Managing and Supervisory Boards propose a dividend of €1.10 per share.

Patents and inventions



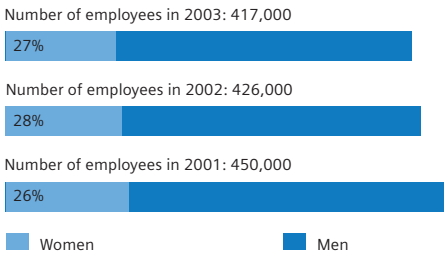
From 2000 excluding Infineon

Patents and inventions

Innovation has always been a key driver for Siemens. Werner von Siemens founded the company with Johann Georg Halske on the strength of a patent for the pointer telegraph. In fiscal 2003 we invested around €5.1 billion in research and development. Our researchers and developers registered 7,000 inventions – roughly 30 every working day. We filed patent applications for two-thirds of these. Siemens is a leader in international patent statistics: In Germany, we were the largest applicant, while in Europe we held the No. 2 spot. We also ranked among the top ten patent holders in the United States (see also page 13).

Employees worldwide

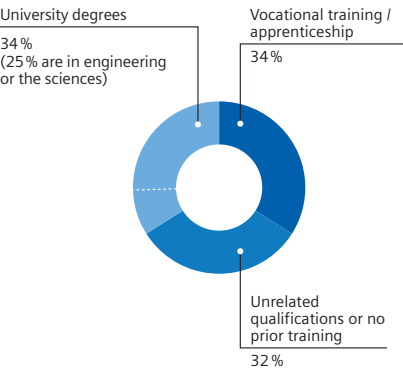
(excluding Infineon)



Employees worldwide

Few companies can lay claim to being truly global organizations in the way that Siemens can. Our GLOBAL NETWORK OF INNOVATION consists of 417,000 employees in more than 190 countries. Today, 60 percent of our workforce works outside Germany, our home market. Twenty-six percent of our employees are in Europe (excluding Germany), 20 percent in the Americas, and 11 percent in Asia-Pacific. A further 2 percent are located in the world's other regions. Women make up 27 percent of Siemens' workforce.

Employees' qualifications



Employees' qualifications

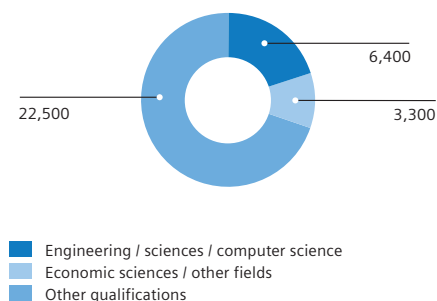
As a manufacturer of high-tech solutions, we depend heavily on a qualified workforce if we are to remain competitive at the international level. Almost 70 percent of our employees are graduates of vocational or higher education programs. Thirty-four percent, or 141,000, are university trained. Those industry sectors in which we do business predominantly employ people with technical, scientific, or industry-specific training. This is evident in our employees' educational backgrounds. Of our 141,000 university-trained employees, around three-quarters are graduates in engineering, the natural sciences, or computer science.



### New hires

Last fiscal year, we hired 32,200 employees worldwide. Thirty-four percent of our new hires were women – substantially more than the average across our workforce as a whole (27 percent). Our goal is to attract an even greater number of women to work for the company in the future. Around 30 percent, or 9,700, of our new hires are university-trained, of whom almost two-thirds (6,400) are engineers or scientists.

### New hires: 32,200 of whom with university degrees: 9,700

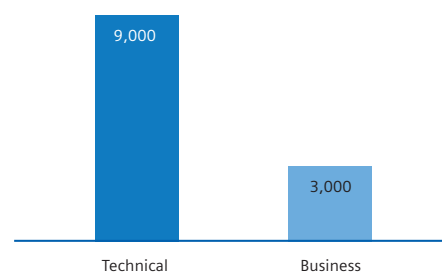


Business

### Employee training

For employees today, lifelong learning is an everyday part of their professional life. Today's rapidly changing work environment is a constant call to extend their knowledge and skills. Siemens feels it is responsible for creating the requisite opportunities for employees to build new competencies. Last fiscal year, we spent around €500 million on further education programs for our employees and on vocational programs for young people. Around 40 percent of this sum was spent on 12,000 young people currently undergoing vocational training or a work-study program with the company.

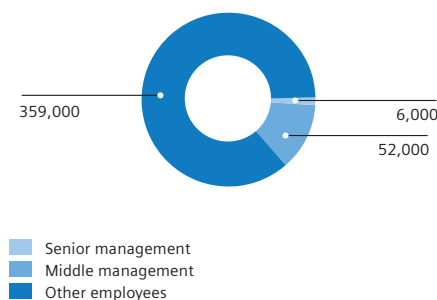
### Apprentices: 12,000



### Management

In the past fiscal year, we overhauled our management system with the goal of making it more transparent and effective. As part of this overhaul, we expanded our *top\** Business Excellence Program, developing it into our *top\** Siemens Management System (SMS), which consists of three company-wide programs: *Innovation*, *Customer focus*, and *Global competitiveness* (for details, see page 62).

### Total employees: 417,000 Management-level employees: 58,000



### Women in the workforce

At September 30, 2003, 112,000 women were employed with the company – accounting for 27 percent of the workforce. This corresponds to the average worldwide for comparable corporations. In the future, however, we aim to attract a greater number of women to work for Siemens. Of the 23,000 women who were university-trained, 44 percent had a technical or scientific degree. Women accounted for 9.0 percent of our 58,000 management-level employees, up from 8.7 percent in the previous year.

	Total employees	Women (percent)
Employees worldwide	417,000	27
New hires	32,200	34
University graduates	141,000	16
New hires with university degrees	9,700	24
Technical apprentices	9,000	11
Business trainees	3,000	57
Senior management	6,000	5
Middle management	52,000	10

### Personnel costs

in millions of euros	2003	2002	2001
Wages and salaries	20,740	22,639	23,028
Statutory social welfare contributions and expenses for optional support payments	3,573	3,592	3,673
Expenses relating to pension plans and employee benefits	1,439	964	401
	<b>25,752</b>	<b>27,195</b>	<b>27,102</b>

### Pensions

Siemens provides employees in Germany and in 30 other countries with defined benefit pension plans. The main pension plans include around 498,000 persons with entitlements, including 246,000 current employees, 86,000 former employees, and 166,000 retirees and surviving dependents. In the past fiscal year, Siemens paid out €947 million in pensions.

Pension payments in millions of euros	Total	Germany	Other countries
2002	930	620	310
2003	947	686	261

## Environmental stewardship

This year, for the first time, we are reporting on our worldwide environmental performance by region. The regions covered are Germany, other European countries, North and South America, and Asia-Pacific. The information presented here is based on information gathered from 229 locations – 40 more than a year earlier. Most of our manufacturing locations today have deployed highly efficient environmental management systems. We only report on those locations that are environmentally relevant – in other words, locations that exceed certain limits in terms of the energy or water they consume or the amount of waste they generate.

The environmental data presented is representative in that it pertains to the whole of our product range and to the most important regions in which we do business. We have compiled and analyzed information on the flow of materials and energy within the company during the course of one year. The data we collected provides a basis for identifying potential advances that we can pursue in the area of environmental protection. All the data provided here are for the fiscal year ending on September 30, 2002. This time, our reporting covers all those companies in which Siemens has a stake of more than 50 percent.

We believe that it is important to report on fundamental issues of environmental protection and resource consumption in the interests of transparency and credibility. We also participate actively in a number of committees so as to share the experience we have accumulated in company reporting. As a multinational company, we place particular emphasis on identifying ways forward that are globally viable and benefit all those participating in the reporting process.

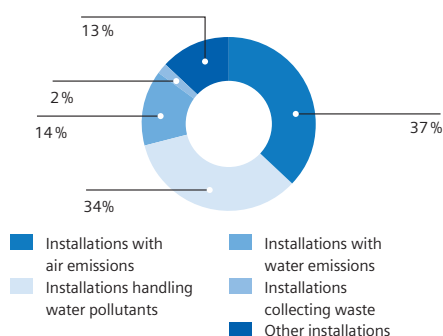
In the future, we plan to widen the scope of our reporting system to include all our environmentally relevant manufacturing sites and service centers – some 300 company locations worldwide. Also, in fiscal 2004 we will take steps to improve data collection in our plants, particularly in those not yet doing so according to a uniform system. Our records of energy consumption, water consumption, and waste generated cover all of our locations in Germany but not all of our locations in other countries and regions.

### Contributing countries by region

Europe (161)*	Americas (41)	Asia-Pacific (27)
Germany (97)	USA (19)	China (15)
France (10)	Canada (9)	India (6)
Czech Republic (8)	Brazil (7)	Korea (4)
United Kingdom (7)	Mexico (4)	Malaysia (1)
Spain (6)	Argentina (1)	Pakistan (1)
Austria (5)	Colombia (1)	
Greece (5)		
Switzerland (5)		
Italy (4)		
Portugal (3)		
Sweden (3)		
Hungary (2)		
Norway (2)		
Finland (1)		
Netherlands (1)		
Romania (1)		
Slovakia (1)		

\*) The figures in brackets show the number of locations that submitted reports.

### Installations requiring authorization/ notifiable installations



### Environmentally relevant locations

A location is classed as environmentally relevant in our reporting if its waste volume and its energy and water consumption exceed certain in-house limits. A location's environmental relevance is also determined by the number of installations on site requiring authorization or notification. The majority of our 734 installations that fall into these categories are relevant on account of their air or water emissions. The majority of locations have just one or two such installations. Whether or not local authorities class an installation as notifiable or requiring authorization varies greatly from country to country.

### Location data

	Germany	Europe (excl. Germany)	Americas	Asia-Pacific	Total worldwide
Locations surveyed	97	64	41	27	229
Total area (millions of m <sup>2</sup> )	11.9	4.9	3.4	1.2	21.4
Paved areas (millions of m <sup>2</sup> )	3.8	2.1	0.8	0.4	7.1
Installations requiring authorization/ notifiable installations	542	140	42	10	734

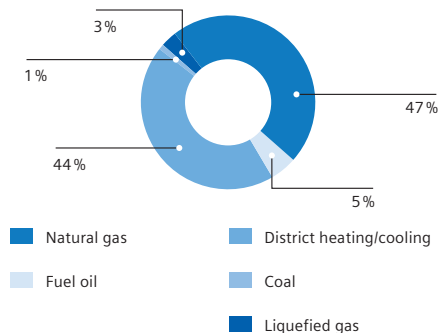
### Energy

For many years now, we have made extensive efforts to increase our energy efficiency. In recent years, these efforts have led to considerable advances. Even so, such factors as the weather, production capacity utilization, changes in our product range, and corresponding shifts in our power requirements cause sizeable fluctuations in our overall energy consumption.

As shown in the energy sources chart, the trend in recent years in favor of district heating and natural gas continues: Today, these sources cover 91 percent of our heating needs. Our heating oil consumption has declined. The potential for achieving further gains in heat recovery is limited by technical and economic factors, so we are unlikely to see any significant advances here in the future.

Our heating energy requirements are on much the same scale as our electric power requirements. In total, our area-specific energy requirements per square meter of net floor area amount to almost 430 kilowatt hours.

### Energy sources



### Energy consumption

	Germany	Europe (excl. Germany)	Americas	Asia-Pacific	Total worldwide
Heating energy consumption (millions of kWh)	1,647	393	133	116	2,290
Area-specific heating energy per square meter of net floor area (kWh/m <sup>2</sup> )	202	181	198	303	201
Electric power (millions of kWh)	1,745	481	267	108	2,600
Area-specific power consumption per square meter of net floor area (kWh/m <sup>2</sup> )	213	222	396	281	228



### Environmental operating expenses and capital spending

In the records we keep concerning operating expenses and capital spending on environmental protection, we classify expenditure according to strict criteria. Capital spending and operating expenses have to be associated with a specific environmentally relevant field, such as air quality control or noise protection, in order to be classed as environmental protection costs. Alternatively, they must have obvious environmental relevancy in connection with a particular installation. This applies both to end-of-pipe solutions and to production-integrated protection measures. We also keep records of our environmental management costs. These encompass all expenditures in connection with setting up and maintaining our environmental management system – for the most part expenditure on human resources, materials needed by our environmental officers, and corporate functions involved in environmental protection. Costs of environmental communications work and information systems are also included.

#### Current environmental operating expense and capital spending

Our operating expenses and capital spending on environmental protection ran to €54 million and €8 million, respectively, in fiscal 2002. As in previous years, most of the spending was on waste management and the protection of water resources. It is now evident that costs have reached a lower limit as a result of our investments in integrated plant technology during the past ten years. In total, the company spends around €234 per employee per year on environmental measures.

### Environmental operating expenses and capital spending

	Germany	Europe (excl. Germany)	Americas	Asia-Pacific	Total worldwide
Total expenditure per employee/year	€ 293	€ 133	€ 87	€ 47	€ 234

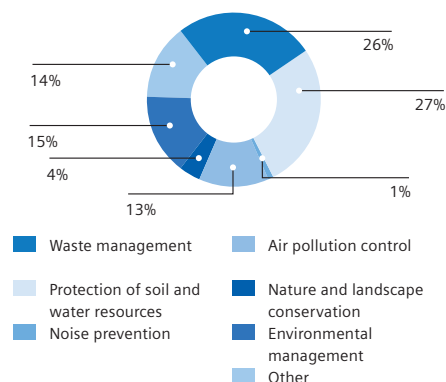
### Water

In fiscal 2002, Siemens purchased roughly 30 million cubic meters of water. We obtain the greater part of our water from our own wells and source only about 24 percent of our total water requirements from the public mains supply. A single manufacturing location accounts for most of the water discharge – 20 million cubic meters – so this is not included in the tabular overview. This water is used in a closed-pipe cooling system and is reinjected into the groundwater after use without any payload. All other wastewater is discharged to municipal biological treatment plants after any pre-treatment needed has been carried out in our own facilities.

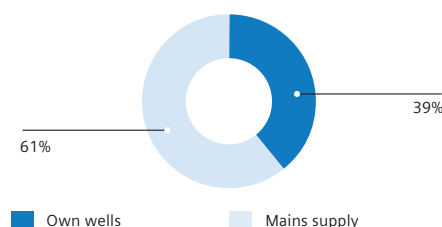
#### Water usage in selected categories

Wastewater from manufacturing processes and wastewater from canteens and employee facilities are regarded as two distinct categories. The amount of water consumed, not including cooling water, by the whole of Siemens amounted to 115 liters per employee per day.

### Spending by category



### Water procurement



### Water usage

	Germany	Europe (excl. Germany)	Americas	Asia-Pacific	Total worldwide
<b>Wastewater from manufacturing processes</b> (millions of m³)	1.2	0.2	0.2	0.2	1.8
<b>Wastewater from canteens and employee facilities</b> (millions of m³)	3.1	1.0	0.5	0.4	5.0
<b>Cooling water</b> (millions of m³)	2.0	1.3	0.1	0.1	3.5
<b>Wastewater per employee/year</b> (m³, excl. cooling water)	23	23	38	33	25

### Waste

We differentiate between hazardous and non-hazardous waste in terms of its impact. We also differentiate between waste for recycling and waste for disposal in terms of the method of treatment. Due to the fact that construction and demolition rubble has a strong influence on the overall waste balance and can vary greatly in volume from one year to the next, it is reported in a separate category. Our statistics only cover waste generated by Siemens. They do not encompass waste that we dispose of under contract from our customers or transfer to third parties.

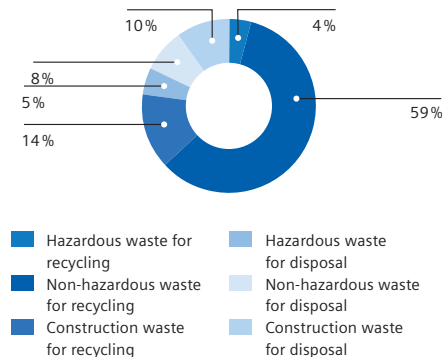
### Waste volumes

In recent years, we have significantly reduced the overall waste volume by carefully collecting, sorting and separating waste and by introducing effective methods of avoidance and reduction. Construction waste volumes depend on the number of major projects in progress. In fiscal 2002, there were three larger-scale demolition projects at our locations. These account for the relatively high volumes of demolition rubble reported in Germany and Asia-Pacific. The vast majority of the rubble – 77 percent – was handled as waste and sent for processing. Our waste volume, excluding construction waste, totaled around 850 kilograms per employee per year.

### Waste volumes

	Germany	Europe (excl. Germany)	Americas	Asia-Pacific	Total worldwide
<b>Hazardous waste</b> (tons)	19,810	4,432	3,433	686	28,361
<b>Non-hazardous waste</b> (tons)	136,427	49,436	12,878	3,946	202,687
<b>Construction waste</b> (tons)	39,683	488	990	34,090	75,251
<b>Waste per employee/year</b> (tons, excl. construction waste)	0.83	1.05	0.96	0.27	0.85

### Waste by category



### Greenhouse gases

We also report details of the carbon dioxide emissions arising from the generation and distribution of electric power, district heating, and heat. In fiscal 2002, Siemens' carbon dioxide emissions amounted to roughly 1.8 million tons of CO<sub>2</sub> equivalent. Our area-specific carbon dioxide emissions worldwide totaled 162 kilograms per square meter of net floor area. It is important to note that the majority of these emissions were not self-generated but resulted from the procurement of energy from third-party sources, on which we have minimal influence. Not included here are figures for logistics – specifically, for goods shipments.

### Basis of calculation

The following figures were assumed for district heat cogenerated by the power plant process: carbon dioxide – 0.146 kilograms per kilowatt hour; light fuel oil – 0.265 kilograms of carbon dioxide per kilowatt hour; natural gas – 0.175 kilograms of carbon dioxide per kilowatt hour; power – 0.550 kilograms of carbon dioxide per kilowatt hour.

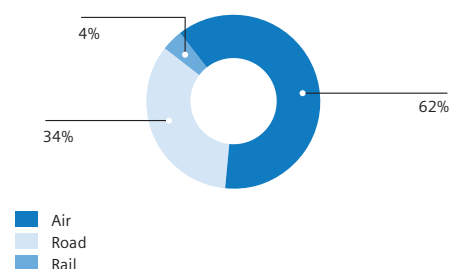
### Greenhouse gases

	Germany	Europe (excl. Germany)	Americas	Asia-Pacific	Total worldwide
CO <sub>2</sub> from electric power generation (millions of tons)	0.96	0.26	0.15	0.06	1.43
Specific CO <sub>2</sub> emissions from electric power generation (kilograms per m <sup>2</sup> of net floor area)	117	122	218	155	126
CO <sub>2</sub> from heating energy (millions of tons)	0.29	0.05	0.04	0.03	0.41
Specific CO <sub>2</sub> emissions from heating energy (kilograms per m <sup>2</sup> of net floor area)	35	25	57	75	36

### Business travel

In the past year, we again recorded the distances covered by employees on business trips around the globe. In total, they traveled roughly 1.9 billion person-kilometers.

### Sources by mode of transport



Corporate citizenship

Youth and Knowledge

Our Youth and Knowledge Development Program has successfully operated a range of projects for schools and universities for six years now. The program is committed to encouraging an interest in new technology among youngsters and to providing support for educational and career choices. Youth and Knowledge places particular emphasis on making efficient use of resources so as to be able to support and advance as many young people as possible.

**Youth and Knowledge's Schools** program primarily supports projects that relate in some way to modern technology. At the same time, it seeks to advance economic science and social competencies. One of its high-profile projects is the Join Multimedia competition for schools across Europe. Last fiscal year, the competition drew entries from 2,222 teams of school students in 34 countries – a new record.

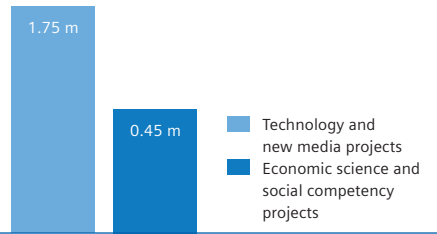
During 2003, the program also launched its E-Learning pilot project across Europe. All teachers supervising teams taking part in the Join Multimedia competition are given the opportunity to take part in E-Learning free of charge. In 2003, 130 teachers attended onward training programs on the subject of image and audio editing.

**Youth and Knowledge's Universities** program focuses on assisting students from Central and Eastern Europe, Asia and Latin America. In fiscal 2003, we provided the resources to enable 192 students from these regions to attend master's degree programs at universities in Germany. The purpose of this is to recruit high potentials for future careers as specialists and managerial employees and to advance highly gifted young people and bind them to the company. Selection is handled by TOPAZ, the Siemens Student Program. We are happy to report that the number of women among grant recipients rose to 37 percent last fiscal year, up from 30 percent in fiscal 2002.

[www.siemens.com/career/topaz](http://www.siemens.com/career/topaz)

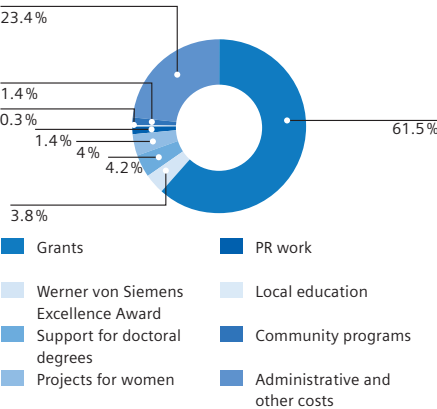
Youth and Knowledge – Schools

Funding in 2003: €2.2 million



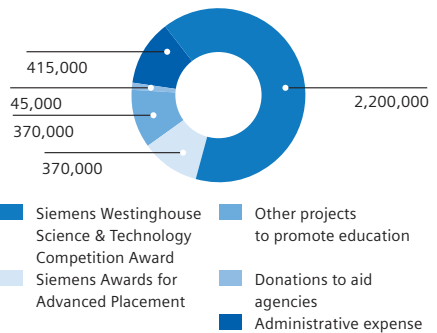
Youth and Knowledge – Universities

Funding in 2003: €1.9 million



Siemens Foundation

Funding in 2003: €3.4 million



The Siemens Foundation

For five years now, the Siemens Foundation in the U.S. has advanced higher education for gifted high school and university students. Above all, the Foundation seeks to improve standards in the teaching of science, technology and mathematics. The Siemens Westinghouse Science and Technology Competition, now well-known in academic circles, has attained immense prominence and recognition. During the past fiscal year, the Foundation's budget totaled €3.4 million.



### Unicef

To mark the 50th anniversary of Unicef in Germany and to do more to help children, we entered into a strategic partnership with Unicef at the beginning of fiscal 2003. Any company with a sense of responsibility has to have an interest in creating a better future for children. We have set out to win as many sponsors for Unicef as possible and we are actively promoting this cause among our employees, our shareholders, and our customers. To date, we have succeeded in recruiting 1,500 sponsor members for Unicef and have collected numerous one-time donations. The volume of donations had reached a total of €380,000 by yearend.

[www.siemens.com/unicef](http://www.siemens.com/unicef)

### Siemens Caring Hands

In the United States, Siemens Caring Hands supports volunteer activities by Siemens employees in their local communities. Each year, teams that have distinguished themselves through their work are honored with the Community Excellence Award. In November 2003, Siemens CEO Heinrich v. Pierer presented the award in Washington, D.C. The winners received a check for US\$ 2,500 for the charity they were supporting.

Following the powerful earthquake that devastated the city of Bam in southeast Iran on December 26, 2003, Siemens provided €150,000 in medical equipment, telecommunications systems, relief goods, and technical assistance. In addition, Siemens employees made personal donations to support the relief efforts.

### The Siemens Arts Program

Since its inception 16 years ago, the Siemens Arts Program has sought to build bridges between culture, industry, and society to encourage the transfer of ideas. Reflecting Siemens' focus on innovation, the Siemens Arts Program takes a progressive approach by primarily advancing projects and artists seeking to push the envelope in contemporary art and with new art forms. A number of projects are described on page 50.

### The SiemensForums

Our SiemensForums – in Berlin, Erlangen, Munich, Vienna and Zurich – provide a network for constructive and multifaceted debate on technical, economic and societal issues. The Forums' work includes organizing exhibitions on their premises, lecture visits by contemporary authors, and discussion groups. Last fiscal year, the SiemensForums were equipped with €9.4 million in funding to support these activities and foster a dialogue with the general public.

### Donations

Contributions from 1,500 members:  
€190,000 / year

Total donations: €380,000

### Siemens Caring Hands

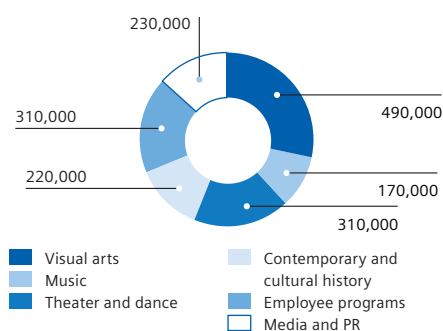
Funding in 2003: €94,000

Employee donations: €14,000

Caring Hands Community  
Excellence Awards: €80,000

### The Siemens Arts Program

Funding in 2003: €1.73 million



## Key terms

### A

<b>Audit</b>	A formal examination of the whole or parts of an organization to verify its compliance with specific requirements. At Siemens, we conduct internal audits to ensure that operating units and locations comply with our own and statutory environmental regulations.
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### B

<b>Business conduct guidelines</b>	Moral principles concerning both ideal and unacceptable behavior by corporations and individual businesspeople.
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### C

<b>Business portfolio</b>	The aggregate total of business areas in which Siemens is active.
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<b>Certification</b>	Confirmation of compliance with the criteria defined in a standard following an audit by a verification organization.
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<b>Corporate citizenship</b>	A corporation's activities and initiatives in the community, undertaken out of a sense of social and environmental responsibility.
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<b>Corporate governance</b>	The system by which business corporations are directed and controlled.
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<b>Corporate principles</b>	A set of principles describing a company's values and perception of itself. Siemens' Corporate Principles were defined in 1997, the year of the company's 150th anniversary, based on a worldwide employee survey. The Principles were revised in 2002.
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<b>Corporate responsibility</b>	The continuing commitment by business to behave ethically and to contribute to economic development while improving the quality of life of the workforce, as well as of the local community and society at large.
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### D

<b>Diversity</b>	The variety of cultures, religions, nationalities, and age, ethnic and social groups represented within a company's workforce.
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<b>Dow Jones Sustainability Index (DJSI)</b>	A set of indexes created to track the performance of leading companies in the field of corporate sustainability. The DJSI's current rankings comprise some 300 companies whose products, processes, and management systems meet the principles of sustainable development.
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### E

<b>econsense</b>	Formed by the Federation of German Industry (BDI) in 2000, "econsense – Forum for Sustainable Development," was set up to develop sustainability strategies and to promote dialogue with other groups in society. Siemens is a founder member of econsense.
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<b>Efficiency</b>	The ratio of energy input to useful energy output. In power plants, an efficiency rating shows how much of the primary energy consumed (e.g., coal, oil or gas) is converted into electric power.
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<b>EMAS</b>	The EU's Eco-Management and Audit Scheme. Participants in the scheme undertake voluntarily to introduce an environmental management system and to continuously improve environmental protection. Regular audits are conducted by independent environmental verifiers.
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<b>Emissions</b>	Noise, exhaust gases, radiation, vibration, waste, wastewater, heat, etc. produced by industrial installations, forms of transport, residential buildings, products, etc.
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<b>Environmentally relevant installation</b>	An installation, whose air and/or wastewater emissions have a significant environmental impact. Usually, public authorities need to be notified of installations of this kind, or official approval for operation of such installations must be obtained.
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### G

<b>Global Compact</b>	An initiative set up by the United Nations and supported by international companies with the goal of implementing nine principles relating to human rights, labor standards, and environmental protection in business activities.
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		I
<b>INROADS</b>	An organization in the U.S. that seeks to develop and place talented minority youth in business and industry and prepare them for corporate and community leadership.	
<b>ISO 14001</b>	International standard that forms the basis for setting up, auditing and certifying environmental management systems.	M
<b>Management Learning</b>	An important building block in Siemens' internal training programs for the development of employees for key posts and leadership roles.	N
<b>NACME</b>	The National Action Council for Minorities in Engineering, Inc., is a U.S. organization that seeks to increase minority representation in technical, mathematical and engineering programs in schools and universities.	
<b>Non-governmental organization (NGO)</b>	An organization that is neither profit-oriented nor represents a government. NGOs are often single-issue pressure groups working for issues such as human rights or the environment, but an NGO can also represent mainstream activities such as business.	O
<b>Operations</b>	Operations comprises all activities of the Siemens organization worldwide with the exception of Financing and Real Estate and Corporate Treasury.	P
<b>Pictures of the Future</b>	A methodology developed by Corporate Technology for planning for the future based on a combination of extrapolation and retropolation.	R
<b>Rating</b>	Standardized evaluation of issuer's credit standing and debt instruments, carried out by specialized agencies.	
<b>Renewable energy</b>	Strictly, energy extracted from biomass, biogas, or vegetable oil obtained from sources that can re-grow. Other sources like solar, wind, hydro and geothermal energy, although technically not renewable, are frequently also classed in the same category.	S
<b>Sabbatical</b>	A variant form of a part-time working arrangement in which an employee has the opportunity to take time out – up to a year – on a reduced salary. Sabbaticals are part of a company initiative to advance part-time work.	
<b>Siemens Leadership Framework</b>	A fundamental element of the Siemens Management System that provides a binding, company-wide yardstick for evaluating managerial achievement.	
<b>Stakeholder</b>	An individual or organization directly or indirectly affected by the activities of a company – for example, a customer, employee, shareholder, supplier, or community.	
<b>Sustainability/sustainable development</b>	Sustainable development is based on the idea of striking a balance between economic, ecological and social factors. Some U.S. companies also refer to this as the triple bottom line. The concept is frequently associated with Agenda 21, passed at the UN's 1992 Earth Summit in Rio de Janeiro.	T
<b>TOPAZ</b>	An international Siemens advancement program for dedicated students, offering, among other things, internship and placement opportunities, individual mentoring, and careers counseling.	

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## Contacts and information resources

### Information relating to issues covered in this report

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