

## Sustainability Report 2010 Seize opportunities, minimize risks, live our values

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# Siemens at a glance

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All figures in this brochure correspond to the information published in the Siemens Annual Report 2010.

## Contents part I

## Contents part II

#### Introduction

- 4 Foreword
- 6 Challenges

#### City profiles

- 12 London Technology with a bright future
- 20 Shanghai Growing with clean energy
- 26 Houston

Becoming America's greenest big city

34 Singapore Water for the city on the water

#### 42 Mumbai

A better quality of life for Mumbai

#### Introduction

- 54 Key performance indicators 2010
- 56 Reporting method

#### Strategy

- 57 One Siemens
- 57 Materiality portfolio
- 58 Cooperation
- 59 Organization
- 60 Outlook

#### Facts and figures

- 62 Innovation
- 65 Customers and portfolio
- 68 Compliance
- 71 Environmental protection
- 77 Product responsibility
- 80 Occupational health and safety management
- 83 Employees
- 87 Suppliers
- 90 Corporate citizenship
- 95 PwC Independent Assurance Report

#### Indices

- 98 UN Global Compact
- 100 UN CEO Water Mandate
- 101 Global Reporting Initiative

#### Further information

- 102 Disclaimer
- 104 Information resources
- 106 Web overview



Ladies and gentlemen,

Long-term thinking can be expressed in a single figure: 135 million. That's about how many children were born in 2010. Like the boy on our front cover, most of these young people will grow up in cities whose quality of life we decisively determine by our own present actions. It's today's children who will live to see if we succeed in the years ahead in reconciling the sometimes competing requirements of the environment, economy and society. In fifty years, at the very latest, they'll know if we've managed to create a genuinely sustainable economy, to permanently reduce resource consumption on our planet and to effectively limit climate change. Either way, it's our children who'll bear the consequences of our decisions today. To think about tomorrow today and to make a bright future possible for the generations to come – this is our aspiration. Over the past few years, we've fostered the transformation of Siemens into an especially sustainable company. In 2010, our many improvements enabled us to again capture leading positions on the Dow Jones Sustainability Index and in the Carbon Disclosure Project. We've made a clear commitment to the ten principles of the UN Global Compact and to the goal and principles of the UN's CEO Water Mandate for the responsible use of water – one of the world's most precious resources.

To make our company sustainable in every respect, challenges in a wide variety of areas lie ahead of us. These include our own internal environmental targets and responsible, diversity-oriented employee policies. We're also driving occupational health and safety management and working to commit our suppliers to our own high standards. Other key focus areas are collective action with other stakeholders for fair market conditions and clean business practices and the Siemens Integrity Initiative which supports projects around the world fighting corruption and fraud with a total funding volume of US\$100 million over the next 15 years. A major challenge will be to further expand our Environmental Portfolio. Our goal: to generate revenue with green products and solutions of at least €40 billion by the end of fiscal 2014. Achieving this goal will also benefit the environment: already by the end of fiscal 2011, Siemens products will be helping customers cut carbon emissions by some 300 million tons a year. More information on our activities is provided in the second part of this Sustainability Report.

The report's first part highlights our contributions to the sustainable development of societies worldwide by showcasing Siemens projects in several of the world's major cities. Our products, solutions and services are strengthening the infrastructures of key urban centers and increasing the quality of life for city dwellers. As these examples show, the challenges for sustainability differ greatly from region to region around the world. It is – and will remain – our goal to master these challenges with innovative products, solutions and ideas.

The awareness of sustainability is best promoted through dialogue. To benefit from a wide variety of external opinions, we set up a panel of international experts, the Siemens Sustainability Advisory Board, in 2010. With an idea competition and training programs, we're also fostering our employees' enthusiasm for sustainability-related topics and making them ambassadors for sustainability.

Accompany us on the next stages of our journey into the future – with your ideas and a critical eye. We're looking forward to your suggestions and to continuing our mutual dialogue.

Pta Lescher

Peter Löscher President and CEO of Siemens AG

Barbara Kux Member of the Managing Board of Siemens AG and Chief Sustainability Officer

# Challenges

The world is changing, as are the societies in which we as a company operate. Climate change and globalization, rapidly advancing urbanization, demographic change and its impacts – these megatrends are shaping people's everyday lives and their economic environments. The consequences of these megatrends can most clearly be seen in cities: A steadily growing demand for energy, rising water consumption and a need for high-quality and affordable healthcare are just some of the challenges facing authorities in the world's cities.

Siemens has answers: As an integrated technology company, we offer a wide range of products and solutions for tackling and mastering these challenges. They include industry solutions for urban infrastructure improvement, future-oriented technologies for water treatment and clean energy generation, and technological innovations covering the entire medical supply chain.

Over the 160-year history of our company, we have shown that Siemens is capable of rising to the challenges of the day – through innovative products and solutions spawned by a rigorous research and development strategy and through ongoing interaction and cooperation with scientific institutions, customers, politics and society. We have thus been able to use our extensive expertise to provide support for the world's metropolises. The Green City Index is a good example of these efforts. In cooperation with an external partner, Siemens has commissioned a series of comprehensive comparative studies. The aim behind this project is to provide city leaders worldwide with a yardstick so they can better evaluate their own environmental and climate protection services and at the same time learn from one another.

The Green City Index is intended to help these leaders understand the strengths or weaknesses of their own cities, identify models to follow and possible solutions to adopt, and determine priorities for action. Over 100 of the world's major cities are currently included in the Index. Studies have already been carried out for Europe, Latin America and Asia, with further studies for Africa and the United States/Canada to follow by the end of 2011.

All this shows that Siemens is working actively in partnership with cities worldwide and contributing to their sustainable development. To find out more, we invite you to read the following pages.

# According to calculations by the International Energy Agency, the world's primary energy demand will grow 360/6 between 2008 and 2035

#### Energy

The world stands at the threshold of fundamental industrial and technological change – a shift toward an economy that conserves energy and raw materials. It is being driven by global climate change and the soaring world population with its enormous appetite for energy and resources. The key challenge here: How can we satisfy the rising demand for energy while at the same time conserving resources and protecting the climate?

The good news is that sustainable power generation is already possible by using technologies from the Siemens Environmental Portfolio. This motivates us to invest further in research and development to reduce the costs of ecofriendly and climate-neutral power generation, distribution and consumption.

#### Facts about energy demand<sup>1</sup>

- > According to the World Energy Outlook issued by the International Energy Agency, global power consumption will increase, in the new energy policy scenario, by 2.2 percent a year between 2008 and 2035.
- > Non-OECD countries will account for more than 80 percent of this growth.
- > Power generation from renewable energies will triple during the same period.
- > At the same time, the share of renewable energies in global power generation will jump from 19 percent to nearly 30 percent, matching that of coal.

\_\_\_\_\_

1 Source: World Energy Outlook 2010.

At 2.5% a year, water consumption is growing faster than the world population.<sup>1</sup>

#### Water

Since mid-2010, clean water has been anchored as a human right in the United Nations' Universal Declaration of Human Rights. Yet nearly 900 million people worldwide still do not have access to clean drinking water. Climate change, accompanied by the lack of rain and advancing desertification, isn't the only reason for the scarcity of water. Rising demand is also being driven by global population growth and far too careless management of this vital resource.

Faced with these enormous challenges, Siemens researchers are working hard on new technologies for recycling water, reducing waste water and energy use, desalinating sea water and achieving more efficient processes.

#### Facts about water

- > Sea water accounts for 97.5 percent of available water reserves.<sup>2</sup>
- > Around 70 percent of the global water consumption is for agriculture, 20 percent for industry and 10 percent for households.<sup>3</sup>
- > Two-thirds of people with no access to clean water live in Asia.<sup>4</sup>
- > In Africa, 42 percent of people south of the Sahara have to live without adequate water supplies.<sup>4</sup>
- > Around 80 percent of infectious diseases worldwide can be traced to contaminated water.<sup>4</sup>

- Source: Rüdiger Knauf, The Future of Global Water, September 2010, page 2.
- Source: Rudiger Knauf, The Future of Global Water, September 2010, page 2.
  Source: Rüdiger Knauf, Umweltfreundliche Bakterien, in: Wirtschaftskurier, July 2010.
  Source: UN World Water Report 2009, page 99.
  Source: Sylvia Trage, Clean Water a Challenge for Humanity, in: Pictures of the future, Spring 2010, page 77.

## According to the WHO's World Health Report



of all global healthcare expenditure is currently wasted due to inefficient healthcare systems.1

#### Healthcare

The promotion and protection of health are vital prerequisites for human well-being and for sustainable economic and social development. Moreover, improved health means a better quality of life for individuals. In seeking to improve health, healthcare systems face major challenges such as providing comprehensive, efficient and affordable medical care.

Inexpensive and effective medical technology from Siemens can secure basic medical care in less developed countries. It can also help maintain and improve the efficiency of healthcare in highly developed countries with aging populations.

#### Facts about healthcare

- > In 2007, the 43 poorest countries of the world spent an average of US\$27 per capita on healthcare, while an average of US\$4,405 per capita was spent in the 49 richest countries.<sup>2</sup>
- > Between 2000 and 2008, the share of the GDP spent for healthcare by OECD countries increased from 7.8 to 9.0 percent; by 2009, the share in the U.S. had already reached 17.6 percent.<sup>3</sup>
- > Every year, more than 7 million people worldwide die from heart attacks, over 7 million from cancer and 5.7 million from strokes 4

<sup>3</sup> 4

Source: WHO World Health Report 2010. Source: WHO World Health Statistics 2010. Source: Press release OECD Health Data 2010. Source: Heart attacks: WHO, The top 10 causes of death; cancer: WHO Globocan 2008, IARC, 2010; strokes: WHO, The top 10 causes of death.

### $(0)^{0}$ of global CO<sub>2</sub> emissions Cities account for around ())//\_ of the world's energy consumption.<sup>1</sup> and E

#### Sustainable urban development

Cities grow and stimulate global economic expansion and prosperity. At the same time, they are responsible for the bulk of  $CO_2$  emissions worldwide and thus pose a threat to our climate. Throughout the world, mayors, municipal authorities and city planners are therefore confronted with a number of pressing issues. One of the most important and urgent is: How can cities improve their quality of life and competitiveness and at the same time protect the environment and conserve resources?

"Green" infrastructure solutions from Siemens improve air guality in cities, process drinking water and ensure reliable energy supplies. They reduce the energy consumption of buildings and make transport systems efficient, comfortable and secure.

#### Facts about urban development

- > Over 3.5 billion people, more than half the world's population, now live in cities.<sup>2</sup>
- > By the middle of the 21st century, over 6 billion people will live in cities.<sup>3</sup>
- > In 2025, there will be 221 cities in China alone with populations over one million; in Europe there are 25 today.⁴
- > The 645 biggest cities in the world generate around half of the world's economic output.5

<sup>1</sup> Source: Anna Kajumulo Tibaijuka, Executive Director of the United Nations

Source: Anna Kajumulo Tibajuka, Executive Director of the United Nat Human Settlements Program (UN-HABITAT), October 30, 2007.
 Source: UN Habitat, World Urbanization Prospects. The 2009 Revision.
 Source: UN World Population Prospects Database.
 Source: McKinsey & Co. Report.
 Source: McKinsey Global City Database.

That's the installed capacity of each turbine in the Gunfleet Sands wind farm off the coast of Essex not far from London. The 48 wind turbines have a total capacity of 172 megawatts (MW) – enough to meet the annual electricity needs of 120,000 British households. Compared with electricity generated using fossil fuels, the farm reduces the amount of  $CO_2$  released into the atmosphere by 400,000 tons\* a year – a valuable contribution to the battle against climate change.

# 3.6 MW



London - Clean electricity from wind power

Technology with a bright future

For technicians at the Gunfleet Sands offshore wind farm – located off the coast of Essex not far from the British capital – no two days are alike. Since they can't use their service boat if the water is too shallow, their working hours are determined by the constantly shifting tides.

After the wind farm went into full-scale operation in 2010 following a two-year construction period, Siemens employees have been visiting it to carry out maintenance on the 48 wind turbines to ensure that 120,000 households are kept supplied with clean power. They check the bolts, oil levels, electronic components and all moving parts of the turbines as well topping up the oil and doing repairs where necessary. The Siemens technicians are highly motivated and committed to ensuring that the entire facility remains operational at all times.



- < Offshore maintenance work is a challenge every single day. Safety always has top priority. The technicians work together as a team, each watching out for the others.
- < The wind turbines are subjected to constant vibrations and require the routine checking of all bolts by the maintenance workers.

Energy needs are steadily rising throughout the world. In most places, economic development is impossible without access to electricity. Along with highly-efficient fossil-fuel power plants, clean energy from wind power and other renewable sources is an integral part of a sustainable energy mix designed to mitigate climate change.

Harnessing wind power has a long tradition. In the past, it was used to irrigate fields and mill grain. Using the wind now to generate electricity is thus a modern and technologically complex adaptation of an age-old principle. The key to the success of offshore wind farms is their low maintenance requirements and long service lives. The turbines installed in 1991 at Denmark's Vindeby offshore wind farm, the first of its kind in the world, are still running today without any problems.

The turbines at the Gunfleet Sands offshore wind farm begin producing electricity even at low wind speeds of around 4 meters/second and reach their maximum output at speeds of 13 meters/second. During strong storms, at speeds of 25 meters/second and above, the safety system automatically switches off the turbine. The rotor blades, which are made of fiberglass-reinforced epoxy resin, drive the generator located in the nacelle to produce 33 kilovolts of electricity. This electricity is conducted via a transformer at the base of the tower to the offshore substation, where the voltage is increased to 132 kilovolts before the electricity is fed into the local power grid. Thanks to their location in wind-swept zones, offshore wind farms like the one at Gunfleet Sands are particularly productive, but they present special challenges regarding their construction, installation and operation and also require higher initial investments than onshore wind farms.

Thanks to constant optimization of the materials and processes involved, the production of wind energy is becoming increasingly competitive. New offshore wind farms now achieve the performance of conventional power plants. The United Kingdom is banking more and more on clean, renewable and resource-saving wind energy to cover its long-term energy needs. The London Array, the world's biggest offshore wind farm currently under construction with Siemens technology, will soon be providing 750,000 British households with electricity.

Read more about the topic of wind power in the statement by Dr. Stephan Singer, responsible at the World Wide Fund for Nature (WWF) for worldwide energy policy, on page 18.

That's how strong the wind must be for the wind turbines to reach their maximum installed power capacity.

# 13 m/s

First Aid Kit 999



- < Since 2008, hybrid double-decker buses have been operating in London, including on line 141 between Lordship Lane and London Bridge Bus Station.
- < The chassis of the red buses with Siemens electric motors is a B5L type manufactured by Volvo, while the bodies are built by Wrightbus.

London's fabled double-decker buses are moving with the times: A hybrid-powered test fleet is on the road operating with a combination of diesel engines and electric drives from Siemens. That saves energy and reduces CO<sub>2</sub> emissions.

A lot is expected of buses in today's cities: They need to be lowcost, absolutely reliable, quiet, environmentally friendly thanks to low emissions, and as comfortable as possible for passengers. That's why Transport for London, the British capital's public-transport operator, has been testing an innovative drive concept from Siemens since 2008.

Some of its popular red double-deckers have been fitted with hybrid engines that make intelligent use of the braking energy produced in large quantities in the typical stop-and-go service. In a hybrid-drive bus, the braking energy is not lost as it is with conventional buses. Instead, it is converted back into electrical energy with the help of the traction motor, which acts as a generator, and is stored in high-performance capacitors or batteries. Urban buses like London's double-deckers, which constantly brake and accelerate, thus achieve an enormous energy yield. In hybrid-drive buses, the diesel engine does not drive the rear wheels, as is usually the case, but a generator that produces electricity for the traction motors. In addition, the bus can also run for certain distances in full electric mode with the electricity generated from braking, and then operates absolutely emission-free. Buses equipped with this special hybrid technology are not only economical, but also particularly quiet since the diesel engine no longer runs at high revolutions during acceleration. Instead, the engine runs at a more economical and quieter level. Compared with a conventional diesel bus, the red hybrid double-decker produces up to 40 percent fewer emissions and consumes around 30 percent less fuel. Depending on the route driven, that equates to around 10,000 liters of diesel fuel at an annual mileage of 60,000 kilometers.

Transport for London has had very positive experience with the hybrid drive. By the opening of the Olympic Games in London in 2012, 300 line buses with the hybrid system are scheduled to be operating on London's streets.



## Statement

Dr. Stephan Singer, Director Global Energy Policy at the WWF

In January 2011, the World Wide Fund for Nature (WWF) launched its global clean energy vision with the goal of 100 percent renewable energy by 2050 worldwide. This only works with substantive achievements in energy conservation and breakthroughs in some technologies. Hence, our vision foresees a global final energy demand by 2050 similar to that around year 2000 and, taking a conservative view, this will not compromise with energy needs and economic growth. What is more, energy poverty is to be eliminated in developing countries, where more than 2.5 billion people currently lack access to either electricity and/or secure energy supply for cooking and heating.

Wind power plays a key role in this vision. In many places, wind power is already the largest "new" renewable energy and shows growth rates of 20 to 30 percent. Many scientists and govern-

ments correctly foresee for wind a very huge share of the future electricity share. Wind power presently has installed global capacity of 200 Gigawatt. China alone added 16 Gigawatt of new wind power in 2010 and more than 20 Gigawatt is in pipeline for 2011. The members of the European Union (EU) own a share of 85 Gigawatt which is growing steadily. By the end of 2010, about 6 percent of all electricity came from wind power in the EU - from virtually none ten years ago. Also, wind power is no longer confined to the countries of Denmark, Germany and Spain but more evenly distributed across all of Europe. And we see similar trends globally. Particularly Asia is picking up quickly.

One key concern is that wind - like solar power - is variable and does not blow all the time everywhere. Therefore, and based on present infrastructure, wind will not be able to replace conventional 'baseload' power of nuclear or coal. Hence, we believe that renewable energies must be harnessed most effectively, transmitted and supplied most efficiently to all consumers. Done properly, this will require the development of new and enhanced grid systems between and among various forms of renewables, between regions and even states, and include power storage options. "Baseload" will then acquire a completely new meaning. A new renewable-based power system needs reliable dispatch. Smart grids could deliver that and simultaneously save energy. Presently, however,

centres of conventional energy production are close to those of consumption whereas large scale renewable energy potentials are often located in different regions. New infrastructure and enabling policies are required for a large renewable energy supply system that also accommodates decentralised renewables.

In order to compensate for the 'variability' of large scale wind power, in order to link solar power from the South with wind from the Sea and other renewables from different regions, we need a reliable financial and regulatory framework to incentivise massive investments. For example, we need EU-wide power load management - across the borders. This is a physical task but based on political empowerment and legislation. These grid guestions are key for substantive renewable/wind energy expansion. Not only in Europe, but everywhere. The WWF looks forward to working with Siemens on these questions.

Further information on pages 12-15.

"Wind power will play an important role in future energy supplies."



Dr. Stephan Singer, WWF, Director Global Energy Policy  $5.8\,$  tons of CO\_2 is the per capita emission per year

 $14.5\,$  million people live in the greater area of London

 $701\,$  is the number of people Siemens employed in London in 2010

 $US\$64,\!000\,$  is the per capita GDP per year

 $158\,$  liters is the daily per capita water consumption

London at a glance

Other sustainable Siemens projects in London

People are constantly on the move these days. We consider the development of sustainable mobility solutions that enhance the quality of life as well as the climate to be one of the biggest challenges of our age.

#### Mobility EASIER RECHARGING OF ELECTRIC VEHICLES

Boris Johnson, the Mayor of London, has announced the goal of making the city the European capital of electromobility. Siemens is making its own contribution towards this goal, beginning in 2011 with the construction of a network of charging stations. As early as 2013, owners of electric automobiles will be able to recharge their vehicles at 1,300 locations across the city. Customers paying an annual fee for this service will be exempted from the London congestion charge. In addition to supplying the charging station hardware, Siemens is also providing the software for registration, billing and customer service.

#### **TOIL LESS TRAFFIC IN THE CITY CENTER**

Since 2003, anyone driving their car into the center of London has had to pay a congestion charge. After positive experience with the system, the city leaders decided in 2007 to double the area covered by the charge. The toll-charging technology used is provided by Siemens. Every day, 850 cameras monitor and identify around one million vehicle license numbers. With this system, the Siemens technology is helping save 150,000 tons of CO<sub>2</sub> emissions every year. Since the congestion charge was introduced, the volume of traffic in the city center has been reduced by 15 percent (or 60,000 vehicles) per year. A large share of the drivers has switched to public transport. The positive consequence: Both air pollution and noise emissions are now substantially lower.

#### Center A DIALOG WITH THE PUBLIC

In the spring of 2012, Siemens will open its Urban Sustainability Center (USC) in London's Green Enterprise District. The USC will provide urban decision-makers, planners, architects and the public at large with information on sustainable technologies for urban environments. The futuristic building will offer space for conferences, research facilities, offices, a cafe and a large-scale exhibition. Among other things, the exhibition will take the building's own architecture as an example and demonstrate how energy and water can be utilized in an eco- and climate-friendly manner. A wide range of conferences and seminars will round off the program.

#### Study PATHS TO GREATER SUSTAINABILITY

In London, sustainability goals such as reducing CO<sub>2</sub> emissions can be achieved without seriously impairing the residents' quality of life. One approach to achieving this is described in the study titled "Sustainable Urban Infrastructure: London Edition – a view to 2025," a joint publication of Siemens and management consultancy McKinsey. Simply by using the technologies currently available, London's annual CO<sub>2</sub> emissions could effectively be reduced by more than 40 percent by 2025. Nearly 70 percent of the potential savings can be achieved with technologies that finance themselves through their subsequent energy savings. That's how much Shanghai's power consumption has soared over the past 15 years. And the growth will continue, since the International Energy Agency (IEA) estimates that China will be responsible for 36 percent of the expected global rise in energy demand and will be increasing its consumption by 75 percent between 2008 and 2035. In 2035, China will account for 22 percent of the world's consumption, compared to 17 percent today.

# 250%



Shanghai – Clean energy from coal-fired power plants

Growing with clean energy

Shanghai's brightly lit streets and high-rises testify to the rapid growth in prosperity taking place in both the city itself and throughout China. But the lavish lighting also has a dark side.

In 2009, two-thirds of China's power was generated with coal. Coal-fired power plants are responsible for nearly half of the country's carbon dioxide and close to three-quarters of its sulfur dioxide emissions. As China's economic might has grown, so too has its environmental footprint. The government is now eager to shift to more sustainable energy production, and by 2020, renewable energy sources could deliver as much as 16 percent of China's electricity. Even so, coal will retain its central role in the country's energy mix for some time to come.

Throughout China, coal-fired generating facilities equipped with Siemens technology are spearheading efforts to produce cleaner power, and nowhere more so than in Shanghai.



Engineers monitor equipment in the turbine hall of the Waigaoqiao III power plant around the clock.

C To cope with the noise level of the 1,000-megawatt turbine, plant personnel wear hearing protection and use radios to communicate, even at short distances.

With its exceptionally high efficiency of 46 percent, Waigaoqiao III ranks as the world's most efficient coal-fired power plant. Here, the facility's two 1,000-megawatt units produce power for Shanghai's industry and consumers while helping reduce the plant's carbon emissions and environmental footprint.

No country in the world consumes more fossil fuel or generates more pollutants than China. But the government is taking action and announced ambitious climate goals at the climate summit in Copenhagen. By 2020, China aims to reduce its carbon emissions 40 to 45 percent per GDP unit compared to 2005, by developing wind and solar generating capacity and by increasing hydro and nuclear power output. Yet since China has vast reserves of coal that will continue to be the mainstay of its power generation and growing economy, its coal-fired plants must be made cleaner to reduce the country's carbon footprint.

In Shanghai's Waigaoqiao district, Siemens Energy is showing just how efficient such plants can be. Worldwide, coal-fired power plants operate with an average efficiency of close to 30 percent, but this can be boosted substantially by using ultra-supercritical technology of the kind employed in Waigaoqiao III. The plant burns hard coal to convert water into 600° C steam, which is then forced under enormous pressure – as high as 270 bar – through huge turbines to drive the generators. Thanks to this technology, the facility's two 1,000-megawatt units achieve an efficiency of 46 percent – the world record for conventional coal-fired plants. In 2009, Siemens Energy and the Waigaoqiao III Power Generation Company Shenergy won the Asia Power Gold Award for the power plant with the best environmental performance.

The plant has a capacity of 5 gigawatts, one-third of Shanghai's total installed base. Compared to conventional coal-fired facilities in China, the Waigaoqiao complex consumes roughly 1.1 million tons less coal a year and delivers annual carbon savings of around 2.8 million tons.

That's how much hard coal it takes for the Waigaoqiao III power plant to generate one kilowatt-hour of power. In conventional coal-fired plants, 430 grams of hard coal are needed.

# 279 g

## Statement

Jennifer Morgan and Deborah Seligsohn, World Resources Institute (WRI)

Coal is the backbone of China's energy system, contributing about 70 percent of the country's primary energy in 2010. Even though China is the world's top producer of both wind and hydropower, over three-quarters of its electricity is generated by coal (source: International Energy Agency [IEA], 2010). As a result, coal use was responsible for approximately 90 percent of China's fossil-fuelrelated greenhouse gas emissions in 2010 (source: China's Energy Research Institute [ERI], 2011). A look back at the changes over the past 20 years reveals that coal use in generating power has contributed to nearly all of China's increase in greenhouse gas emissions since 1990 (source: IEA 2010).

In 2010, China produced 3.2 billion tons of coal and imported a further 146 million tons, putting total consumption over 3.3 billion tons (source: National Bureau of Statistics, 2011). These figures make China the world's largest coal producer and consumer, and it will maintain that position for years to come. Hence, reduction of carbon emissions from coal-fired power plants and coal-based industries is the major lever for reducing China's overall greenhouse gas emissions.

Clearly, China's policy choices to achieve energy and climate security goals over the coming years will be critical in determining both its energy mix and its meeting of its own carbon intensity goal of a 40-45 percent reduction by 2020 and any targets set beyond that. Studies by the Energy Research Institute suggest that the energy efficiency programs being implemented by China can avert fully half of the country's emissions growth over the next several decades. There are considerable opportunities for achieving greater efficiency in China's coal-intensive power sector in power generation, transmission and consumption.

In addition, China is already experimenting with a number of technologies for capturing  $CO_2$  from coal-fired power plants, including post-combustion capture in supercritical power plants. The country has also begun to experiment with pilot injections of  $CO_2$  into geological structures. Thus, while coal will continue to play a large role in the energy mix for some time to come, successful implementation of carbon capture and storage has the potential to achieve an absolute decrease in CO<sub>2</sub> emissions, which is essential in addressing the threat of climate change.

Vitally important as well are China's ambitious goals to expand renewable energy, particularly wind, solar and hydro. However, if one recognizes the imperative to shift to a near-zero carbon economy in the coming decades, and notes China's dependence on coal, it would seem only a matter of time before nearzero emissions plants in China become an essential part of the energy mix.

"Greenhouse gas emissions in China can be substantially reduced."



Jennifer Morgan is responsible for the climate and energy program at the WRI.

## 9.7 tons of ${\rm CO}_2$ is the per capita emission per year

6,903 is the number of people Siemens employed in Shanghai in 2010

US\$9,000 is the per capita GDP per year

 $165\,$  liters is the daily per capita water consumption

Shanghai at a glance

Other sustainable Siemens projects in Shanghai

The sparing use of natural resources increases prosperity and improves the quality of life. This is what sustainability means for us – and we work toward this goal day after day.

#### Wind ROTOR BLADES FOR WIND TURBINES

China has doubled its installed base of wind generating capacity every year since 2005. By 2020, the country aims to deploy wind turbines with a total capacity of 150,000 megawatts – nearly twice Europe's present wind generating capacity. Siemens has geared up to meet this soaring demand for wind turbines by opening its own rotor blade manufacturing plant in Shanghai, where 120 employees have been producing rotor blades for 2.3 and 3.6-megawatt wind turbines since late 2010. The company plans to increase the factory workforce to 210 employees in 2011. They will produce 600 rotor blades a year – each with a length of 49 meters and weighing 12 tons.

#### Mobility ENERGY-SAVING METROS

Shanghai is expanding its urban public transport system. A 59-kilometer, 11-station extension to the city's metro Line 11 is due to be completed by the end of 2012. Siemens is supplying energy-saving drive systems for 46 new metro trains. The equipment package includes gearboxes, auxiliary converter units, traction motors, traction converters and train control systems. These advanced components are designed to ensure exceptionally reliable metro operation and low maintenance. The extension to Line 11 will connect downtown Shanghai with Lingang New City, a harbor-area development being built for around 800,000 residents about 60 kilometers south of Shanghai on the coast.

#### Health ENTRY INTO HIGH-END MEDICAL ENGINEERING

Computed tomography (CT) scanners enable physicians to diagnose a wide range of diseases reliably and at a very early stage. Siemens Healthcare has adapted this complex technology to align with the needs and possibilities of less developed healthcare systems. The SOMATOM Spirit is a CT scanner developed and built in Shanghai specifically for this market segment. Designed to deliver entry-level CT capabilities, the scanner is easy to operate, highly reliable and exceptionally cost-efficient. Each year, hundreds of SOMATOM Spirit scanners are shipped to customers, many in rural areas of China as well as in developing regions throughout the world.

#### Training COMPLIANCE TRAININGS FOR SUPPLIERS

Siemens China conducted a series of compliance trainings from August to December 2010 in Shanghai, Beijing and Guangzhou for major suppliers. During the trainings, compliance expectations for Siemens suppliers, Siemens compliance programs and controls as well as the compliance helpdesk "Tell us" for reporting of compliance violations were addressed. Travel agencies and event organizers receive separate trainings addressing specific compliance risks when arranging traveling and entertainment events for Siemens customers. For further information about Siemens Collective Action, see: www.siemens.com/sr/collectiveaction

# 40,000

That's how many LED Siemens technicians installed in Houston's traffic lights to replace the old incandescent light bulbs in just over one year. This modern technology lowers electricity consumption, reduces operating costs and protects the climate by reducing CO<sub>2</sub> emissions.



Houston – Reducing municipal energy consumption

# Becoming America's greenest big city

Houston is widely viewed as the world capital of the oil industry. But considering the rise of renewable energies and the debate surrounding climate change, top city officials realized a few years ago that this title is a dubious distinction, at best. As part of a radical paradigm shift, Houston set itself the goal of increasing the quality of life for its citizens and becoming the "greenest" metropolis in the United States.

The city has already made considerable progress on the way to that goal. Wind farms in Texas generate 33 percent of municipal electricity consumption and nearly 800 local government vehicles run on hybrid technology. And the city plans to expand the first rapid-transit line that opened in 2004 using Siemens light rail cars by building an urban rail network covering more than 60 kilometers. Siemens technology also reduces the electricity consumption of the municipality. And there's an added benefit: The costs of modernizing the city's traffic light system can be recouped through energy cost savings within only a few years.



- < Houston operates nearly 2,400 traffic lights to ensure the safe flow of motor vehicle and pedestrian traffic.
- With LED lighting technology from OSRAM, costly maintenance is a thing of the past. For example, the LEDs installed in the city's traffic lights need to be replaced only on an average of every six years compared to the previously used incandescent bulbs, which had to be replaced annually.

Houston is modernizing every traffic light in the city to reduce their environmental impact and save money at the same time. Though it may sound like magic, that success is a very real and typical experience for a Siemens customer. But there is one magic idea involved here: energy savings contract.

Houston's strong commitment to environmental protection and sustainability quickly spread to the entire municipal government. Rather than settle for small steps, city officials looked for maximum solutions to reduce energy consumption. The city's Transportation Department began its efforts in that direction by scrutinizing the traffic light system.

The question was: Can the installation of ultra-modern technology reduce energy consumption and energy costs far enough to recoup the related investments? Based on detailed calculations, Siemens engineers submitted a convincing proposal to the city: By converting the traffic lights to LED technology, Houston could reduce its energy costs by US\$14 million and lower its operating costs by another US\$5.5 million over a period of ten years. The necessary investment would be US\$12.4 million. In fact, Siemens contractually guaranteed the potential savings in the framework of an energy-savings contract. Work to modernize the city's 2,396 traffic lights and pedestrian signals began in 2009. Siemens technicians replaced more than 40,000 incandescent lights bulbs with modern lightemitting diodes (LEDs). In the course of that work, they also replaced many of the old 8-inch traffic lights with larger, easier-to-see 12-inch models. In addition, many of the more than 7,700 pedestrian signals were also replaced with larger models.

Besides saving the city nearly 9.8 million kilowatt hours of electricity consumption per year, the new LED lamps also last considerably longer than incandescent light bulbs, so they need to be replaced only every six years, rather than once a year. As part of that project, Siemens also set up a traffic light database to lower operating costs even further. This database consists of detailed data on the location, technology, inspections and repairs of all the city's traffic lights.

That's how much electric power Houston saves every year by having installed OSRAM's LED technology in its traffic lights.

SIEMFNG

# <u>9.8 m kWh</u>



<sup>&</sup>lt; The Metropolitan Multi-Service Center in Houston is a municipal sports facility and rehabilitation center for people with physical disabilities.

In Houston, sustainable growth begins with thriftiness. The city is aiming to reduce the energy consumption of all municipal buildings by 20 to 30 percent. And it plans to reach that goal without making any investments of its own, thanks to Siemens energysavings contracts.

Houston is a partner city of the *C40/Clinton Climate Initiative* (CCI), under which some of the world's biggest cities have joined forces to combat climate change. The core activities of this initiative involve programs aimed at promoting energy efficiency and renewable energy. They all aim at reducing greenhouse gas emissions. Top officials in Houston decided that the city should serve as a role model for private homeowners and resolved to modernize and optimize the energy systems of all municipal buildings. The city launched the first phase of the project with a number of smaller projects.

Siemens handled the energy system modernization of a fire station and the Metropolitan Multi-Service Center, a municipal sports facility and rehabilitation center for people with physical disabilities. Siemens experts calculated that modernizing this approximately 3,500 square meter facility would cost around US\$750,000; however, this investment will be amortized in the form of reduced energy and operating costs within a period of 13 years. To cement the deal, Siemens guaranteed those savings in an energy-savings contract. The necessary modernization work was completed by April 2010. Now equipped with modern lighting systems, motion-activated light switches, a solar heating system for the therapeutic swimming pool and new high-efficiency air-conditioning systems, the city will save 550 megawatt hours of electricity and 119 megawatt hours of natural gas a year in those two buildings alone. In addition, annual maintenance costs will be reduced by US\$26,000 over the term of the contract.

This positive outcome encouraged the city to undertake more ambitious projects. In the second phase of the program, Siemens will modernize the energy systems of 55 municipal buildings, comprising total floor space of 120,000 square meters. This energy-savings contract is worth US\$26 million over a period of 13 years. In this contract, Siemens must meet various complex challenges such as lighting sports facilities, increasing the use of rainwater and employing energy-saving window films. A third phase involving modernization of the energy systems in 90 buildings is already in the planning stage. With these projects, Houston will be able to lower the energy consumption of its municipal buildings by 20 to 30 percent within only a few years, without having to make any investments of its own.

Energy-saving lighting elements supplied by Siemens subsidiary OSRAM flood the athletic facility with brilliant light. The costs of retrofitting the lighting system will be recouped in the form of reduced energy costs within a period of 13 years.

That is the quantity of climate-damaging CO<sub>2</sub> emissions Houston will save after completing the second phase of its energy systems modernization program that covers 55 municipal buildings with a floor space of 120,000 square meters.

# 4,200 tons

(TELADI)

## Interview

Laura Spanjian, Sustainability Director Houston

#### Siemens Sustainability Report: Ms. Spanjian, the City of Houston has done a lot on sustainability. What do you see as your biggest challenges?

Laura Spanijan: I see challenges as opportunities. We've done much sustainable work in many different areas: The City of Houston is now the number one municipal purchaser of renewable energy in the country, and we are number 6 overall in the country. 33 percent of our energy comes from wind farms in Texas and we are hoping to increase that percentage to 50 percent soon. In 2007, we had less than ten LEED-certified buildings in Houston, now we have over 115. We also recently launched the Green Office Challenge, a very successful program with 310 participants and growing. On the energy efficiency side, we have programs in every sector. For municipal projects, we're working with Energy Efficiency Performance Contracts, and we use the energy savings to pay back the initial capital investment. That's been very successful for us - we just approved a US\$12 million tranche for Siemens. In addition, in another important area for Houston, we are now working diligently to ramp up our recycling efforts because so far we are diverting just 26 percent of our waste from the landfill.

# How are you embedding this ethic throughout the city and getting people motivated to join?

Houstonians are very motivated to become more sustainable. They want and need support, resources, tools and ideas to move their issues forward. Mayor Annise Parker and our Office of Sustainability provide those resources. We bring people together and partner on every project we work on. Partnerships are what will help put Houston on the map as the greenest city in the US.

## Does the current financial crisis affect your sustainability agenda?

Yes, it's probably the most difficult budget year yet. But at the same time, we continue to work as fast as we can to educate Houstonians about our initiatives because they not only have environmental benefits, but they help people save money. Using less resources, less energy, less water, having less waste go to the landfill – if you're using less, you're spending less. Over and over again, one can continue to make the case for why these projects should actually be increased during an economic downturn.

# Is there a demographic group in the city that tends to be most motivated about your initiatives?

Similar to many cities, the younger generation is pushing much of this work. Young professionals want to live in a city where they can recycle, take public transportation and work in a green building, and we are excited to be the number one city for young professionals, as ranked by Forbes Magazine. We need help educating all sectors of the population, and it's great to have young professionals push and promote some of these initiatives.

#### What would a city like Houston expect from the private sector, especially from Siemens?

We're providing benefits and financial incentives and calling on the private sector to do things voluntarily. We try to do as many things as we can to receive support and buy-in.

Siemens has shown the City that these initiatives work, and the more Siemens can be a cheerleader for that in Houston, the better. The more the City has partners working on sustainable projects and educating the private sector, the better it is for Houston. Siemens has been a tremendous partner. Let's keep going!

"Our sustainability initiatives are bringing people together."



Laura Spanjian, in charge of developing a sustainability strategy for Houston

4.7 tons of CO2 is the per capita emission per year
 2,138 is the number of people Siemens employed in Houston in 2010 US\$67,000 is the per capita GDP per year
 563 liters is the daily per capita water consumption

Houston at a glance

Other sustainable Siemens projects in Houston

Sustainability means ensuring our quality of life over the long term – sometimes in long strides, sometimes in incremental steps. The essential thing is never to be satisfied with what you have achieved.

#### Mobility LIGHT RAIL LINE ENHANCES QUALITY OF LIFE

In 2004, 64 years after shutting down its last streetcar line, Houston opened a new rail-based mass transit system. The Metrorail Redline extends 12.1 kilometers, connecting the downtown business district with Reliant Park, a popular sports and recreation complex. As the light rail market leader in North America, Siemens supplied the 18 light rail trains and the line's complete infrastructure, including signaling and communication systems, power supply and overhead lines. Since its inauguration, the Redline has become a genuine economic factor. New offices and businesses have sprung up around the line stops and rental units routinely advertise "close to Metrorail" – which is good for rent stability. And this success story is still being written: Two new light rail lines are under construction and are scheduled to open in 2014, and two additional lines are being planned.

#### **Recreation SUSTAINABLE TECHNOLOGY FOR PARKS**

The citizens of Houston have enjoyed the 180-hectar Hermann Park since 1914. This green oasis in the middle of the city is a popular place for picnicking, walks, biking, paddle-boating, golfing and many other activities. Siemens is responsible for modernizing the park's energy system. The controllers of the watering system are being updated to better use natural rainfall for irrigating lawns and flower beds. The controllers will automatically irrigate based on soil moisture and weather forecasts. The park's buildings also use considerably less energy for heating, ventilation and air conditioning because they are now controlled automatically, rather than manually, based on outdoor temperatures. The lighting system was also modernized, using thrifty OSRAM technology and motion detectors.

#### **Building COOL HEADS AT THE FIRE DEPARTMENT**

Houston's Fire Station No. 50 also needed to have its energy system modernized. In the past, the air conditioning system ran constantly and kept the rooms much colder than necessary. Today, an energy management and controlling system keeps the building more comfortable while also using less energy. And the new OSRAM lighting system makes the work areas brighter while using much less electricity. That many faucets symbolize for the population of Singapore the state's strategy for ensuring a sustainable water supply: through water imports, the intensive use of rain water, the treatment of waste water and the desalination of sea water.



4

Singapore - Drinking water from waste water and sea water

Water for the city on the water

Singapore is surrounded by water. There is water on the island, but in abundance only at first glance because clean drinking water is in short supply. The densely populated city-state has long been importing a large proportion of its drinking water from Malaysia. That is changing thanks to technologies from Siemens.

A new water treatment plant began operation in Singapore's Changi district in 2010. Using Siemens membrane filters, it can produce up to 228,000 cubic meters of pure drinking water a day from waste water. Together with four smaller treatment plants for waste water, the city-state currently already covers 30 percent of its water consumption. Singapore produces a further 10 percent of its drinking water by desalinating sea water. To increase this share, Siemens is working in Singapore's WaterHub research cluster on a particularly energy-saving technology for desalination. Since the end of 2010, a local demonstration plant has been processing 50 cubic meters of sea water a day into drinking water while using significantly less energy than usual.



- Relatively inconspicuous groups of gray plastic tubes house the heart of the water treatment process, the microfilters. Each tube contains some 10,000 very thin small tubes over two meters in length.
- The plant in Singapore's Changi district is one of the most modern of its type in the world. From 2012 on it will produce up to 228,000 cubic meters of NEWater per day from waste water.

Drinking water is becoming increasingly scarce in many parts of the world. One way of overcoming this challenge is to purify waste water. Singapore's state authority for water management and the environment, PUB, has been involved with this subject for many years. The island state uses Siemens technologies to produce "new water" and markets this under the brand name NEWater.

Singapore has one of the highest per capita incomes in Asia and, according to the Swiss Institute for Management Development, achieved first place among the most competitive economies in 2010. Economically sustainable decisions have for decades ensured considerable economic power and a high quality of life for the city-state. To sustain this development, Singapore is also committed to tackling the shortage of drinking water by investing in the production of drinking water from sea water and in the treatment of waste water to produce drinking water. Siemens is providing important technologies for both these processes.

In the Kranji city district, treatment plants supplied by Siemens have been converting contaminated water into drinking water since 2002. The fifth and currently largest plant in the Changi district began operation in 2010. At its heart, the membrane filtration plant using particularly lightweight and space-saving filters comes from Siemens. By May 2012, the production of NEWater will be ramped up to 228,000 cubic meters per day – and this will be achieved without the use of chemicals. The end product is so clean that it meets all the drinking water standards of the World Health Organization and the U.S. Environmental Protection Agency. Today, the bulk of the NEWater is delivered as high-purity water to Singapore's industrial companies – including those involved in the demanding manufacture of wafers in the chip industry. The production of computer hard drives, in which the manufacturers from Singapore have a world market share of 40 percent, also requires pure water. Apart from bottled NEWater which is distributed in the context of public relations work, only 1 percent of NEWater production is presently fed into the city's drinking water reservoirs.

Siemens' pioneering work ensures that Singapore is currently able to cover up to 30 percent of its daily water needs through the treatment of waste water. Together with the demonstration plant for the low-energy desalination of sea water and further innovative research projects involving Siemens participation, the city-state has thus developed into a world leader for urban agglomerations in matters of drinking water. The NEWater Visitor Center regularly receives delegations from countries and regions which also have to contend with shortages in drinking water resources. Here they learn how applied know-how can overcome the challenge of drinking water shortages.
The pores of the fiber membranes used to clean pretreated waste water are around 2,000 times thinner than a sheet of paper. They reliably remove all loose particles such as dirt, organic matter and germs.

SIEME

and and and and

# <u>0.04 µm</u>

SIEMENS

STENE



- < Sea water with different salinity levels is mixed in large tanks in order to test the desalination under different conditions.
- < The pilot plant for the energy-saving desalination of sea water is housed in a 20-foot container. Siemens engineers determine the exact settings for a particularly energy-efficient extraction of drinking water.

With rising population figures and a growing prosperity, the demand for drinking water is increasing. Singapore is preparing for this growth by promoting the low-energy desalination of sea water.

Like many countries with scarce natural water sources, Singapore obtains a portion of its drinking water from sea water. The reason for this being only a small portion until now is the high cost of desalination. This is because current practice involves heating the salt water, evaporating and then condensing the pure water. The salt is left over. This process uses a great deal of energy. The plants require up to 70 kilowatt-hours of heat energy in order to produce one cubic meter of fresh water.

Today, the energy needed for this is mostly generated in fairly old and inefficient gas-fired power stations. With the newer reverse osmosis method, the salt is forced at high pressure through semipermeable membranes. This utilizes the difference in size between the larger salt ions and the smaller water molecules and only the latter slip through. Current reverse osmosis plants require only 3.5 kilowatt-hours to produce one cubic meter of fresh water. Singapore aims at reducing the energy requirement for desalinating sea water to 1.5 kilowatthours per cubic meter. As an incentive for developing the best technology, in 2008 the city-state offered research funding totaling US\$3 million. Siemens won this funding with its convincing concept for a low-energy desalination technology in which the salts are removed from the sea water in an electrical field. The technique is based on the separation of the electrically charged sodium and chloride ions in the salt. When electrical voltage is applied, the sodium ions are attracted to the negatively charged anode, the chloride ions to the positively charged cathode.

Since October 2010, Siemens' electrochemical desalination has outgrown the laboratory stage and is proving itself in practice. A globally unique pilot plant on a site run by Singapore's state authority for water management and the environment is producing up to 50 cubic meters of drinking water a day from sea water and uses only 1.5 kilowatt-hours of energy per cubic meter in the process.

This is all the energy that Siemens' innovative demonstration plant in Singapore requires to convert one cubic meter of seawater into drinking water. Conventional plants need 3.5 kilowatthours to accomplish this task.

# 1.5 kWh

## Interview

Khoo Teng Chye, CEO of Singapore's Public Utility Board (PUB)

#### Siemens Sustainability Report: Mr. Khoo, what are the main focus areas for securing a sustainable water supply for Singapore?

*Khoo Teng Chye:* One aspect of sustainability with regard to water is securing sufficient supplies. The other aspect is making sure that the community is on board with you, and I think over the years we have succeeded in winning the trust and confidence of the public in NEWater.

Today, we have 17 reservoirs, and two thirds of Singapore serve as a water catchment. We are probably the only city in the world that does water harvesting on such a large scale. For NEWater we are using membrane technology for which Siemens is an important partner and supplier to us.

Another important factor is desalination. We have put up the first desalination plant and will be awarding the tender for a second one. As desalination uses twice the amount of energy compared to recycling, we are putting a lot of research effort into reducing the amount of energy required. So we set up a challenge research project to decrease it by half. And we're happy that Siemens won the project. So the role technology plays for our water supply is extremely important. We continue to invest in technology, and we are also glad that Siemens has decided to set up a water research center in Singapore.

#### How do you motivate people to further reduce water consumption and to be more efficient in its use?

Our strategy is two-pronged: On the one hand it is about ensuring enough supply and investing a lot in technology and R&D, and on the other hand it is working with the community, with all consumers, to make sure we conserve water. Our strategy is summarized in six words: "Water for all - conserve, value, enjoy". This means that on the one hand you see water as a precious, important resource that you need to conserve, but on the other hand you see water as a wonderful environmental asset that can actually really enhance the urban environment. So it's a kind of holistic approach to ensure water sustainability.

#### What do you think developing countries can learn from your water experience here in Singapore?

I think that's one of the values of our yearly "International Water Week": We focus on solutions. We try to encourage companies, ourselves and other countries to talk about how problems are solved so that people from developing countries will have the opportunity to hear leaders discussing and talking about water problems and how to overcome them.

# What is the biggest challenge when it comes to implementing your future plans?

Singapore continues to grow and develop. It's a densely populated region with a very high quality of life and environment. That's why sustainability will continue to be a challenge. And increasingly, so will be energy, not just because of global warming, but also for us as we move from producing NEWater to more energy-intense desalination. So the big challenge is bringing down the amount of energy required to produce water. And in that challenge we appreciate working with a partner like Siemens. But everybody is very optimistic about the outlook, so it's good we work together, and I have high hopes for the future.

"NEWater has given us a solution with which we can profit well into the future."



Khoo Teng Chye, CEO of Singapore's Public Utility Board (PUB)

7.4 tons of CO2 is the per capita emission per year
2,107 is the number of people Siemens employed in Singapore in 2010
US\$37,000 is the per capita GDP per year
155 liters is the daily per capita water consumption

Singapore at a glance

Other sustainable Siemens projects in Singapore

Many of our solutions stand for sustainability and the responsible stewardship of natural resources. Whether water, natural gas or energy – we have the answers.

#### Integrity ANTI-CORRUPTION DECLARATION

On September 29, 2009, 16 multinational enterprises signed the Anti-Corruption & Compliance Declaration for the private sector, the civil society and public institutions. Siemens supports this initiative of the Singapore Institute for International Affairs. For further information about Siemens Collective Action, see: www.siemens.com/sr/collectiveaction

#### Water EFFICIENT WATER RECOVERY

The cleaning of microorganisms and suspended particles is one task in the process chain for obtaining drinking water from waste water. In mid-2010, Siemens put a newly developed membrane bioreactor system into operation for this purpose in Singapore. The system treats one million liters of municipal waste water per day in the Changi water reclamation plant. The new membrane bioreactor system combines the biologically activated sludge treatment with a membrane filtration method. Compared with previous systems, energy consumption declines by 30 to 50 percent. In addition, maintenance costs are lower and operation is simpler.

#### **CHP ELECTRICITY AND STEAM FROM GAS**

Since October 2010, two new blocks operating on the principle of combined heat and power (CHP) have been running in the gas and steam turbine power plant of Singapore's energy supplier PowerSeraya. Siemens supplied both gas turbines, two steam turbines, two hydrogen-cooled generators, both heat recovery boilers as well as the complete electrical engineering and instrumentation and control systems. What's special? The plant not only feeds electricity into the public grid but also provides process steam at the same time for an adjacent refinery. It has thus been possible to increase fuel efficiency to over 75 percent.

#### Mobility ELECTRICAL EQUIPMENT FOR METRO LINE

Singapore has a modern rapid transit system and is a global leader in driverless subway operation. With a route length of 40 kilometers and 33 stations, the new Downtown Line should considerably cut travel times for daily commuter traffic beginning in 2013. Siemens Mobility will equip the new driverless etro line with an efficient traction power supply. Inverters in the substations will transfer the surplus braking energy from the metro trains into the medium-voltage system. More distant consumers, such as trains on other line sections or elevators, escalators and lighting, can also be supplied with this energy. Energy efficiency and environmental sustainability are thus improved. 100 km/h Siemens tech trains only rea muters now s

This is the top speed of the new commuter trains equipped with Siemens technology that serve the suburbs of Mumbai. The old trains only reached a top speed of 80 kilometers per hour. Commuters now save up to 20 minutes a day each way.



Mumbai – Infrastructure solutions for a developing city

A better quality of life for Mumbai

Mumbai is a vibrant metropolis and the financial center of India. And with around 20.6 million inhabitants in the greater metropolitan area, it is one of the most densely populated major cities in the world. At the same time, with an annual per capita GDP of some US\$2,000, Mumbai is also one of the poorest megacities. However, the city is making great progress in improving the quality of life for its residents.

With support from the World Bank, the Mumbai Urban Transport Project has invested around US\$2 billion in the city's transportation infrastructure since 2001. The funding has been used for new rail lines, new urban expressways and for converting some of the public buses to ecofriendly gas power. New trains equipped with Siemens technology are far more economical to operate, friendlier to the environment, and make daily travel for the masses of commuters more comfortable.



< With a track gauge of 1,676 millimeter, Mumbai's suburban trains are much wider than trains using the international standard gauge of 1,435 millimeter.

< Reducing the frequency and complexity of maintenance was one of the main reasons for introducing the new trains. Today, service personnel can pinpoint deviations from specified reference parameters using a notebook computer.

Mumbai's suburban trains carry some 7.1 million passengers every day. During rush hours, trains were extremely overcrowded in the past. Instead of the permitted capacity of 1,700 passengers, more than 5,000 people often rode on one train. With up to 16 people per square meter space, the trains had the highest passenger density in the world. Thanks to technology from Siemens, higher transport capacities are now available and have improved the comfort for stressed commuters.

The suburban trains of the Mumbai Railway Vikas Corporation (MRVC) are a very popular and robust means of transportation. About 88 percent of all travel in Mumbai is by bus and train, and four-fifths of every passenger kilometer is with local trains. The trains are quite popular because of their moderate fares that make travel affordable for those with lower incomes. Due to this enormous popularity, the MRVC was faced with a number of tough challenges. Traveling in overcrowded trains is both uncomfortable and dangerous. And when boarding and exiting takes such a long time, train service is seldom on schedule. Furthermore, the old trains consumed too much electricity and were subject to extreme wear and tear. This resulted in a large number of breakdowns. As part of the Mumbai Urban Transport Project, the MRVC committed to correcting these problems with financial support from the World Bank.

Mumbai's new suburban trains are equipped with Siemens technology that makes them safer, more comfortable, faster and more ecofriendly. Over the past few years, MRVC has put 112 new trains with more than 1,200 coaches into service. One important innovation is the change in the power supply, from 1.5-kilovolt direct current to 25-kilovolt alternating current. Taking into account the energy regenerated from the braking system, the new trains consume up to 40 percent less electricity and considerably improve their CO<sub>2</sub> footprint. The Siemens propulsion systems are not only more powerful, but also brake and accelerate fully loaded trains faster and achieve higher top speeds. Longer trains with twelve coaches rather than nine can be used and this increases the operating frequency. Once all of the new trains have been delivered, Mumbai's suburban rail service will have increased its passenger capacity by round 60 percent. The massive overcrowding at rush hour will then be a thing of the past. Passengers also benefit from additional innovations: Rather than obsolete steel springs, a pneumatic suspension system provides greater comfort. In addition, the new trains feature active ventilation systems and are considerably quieter than their predecessors.

More information on the topic is provided in the interview with Dr. P. C. Seghal, Managing Director of MRVC, on page 50.

That is the energy savings delivered by every new suburban train in Mumbai compared to the previous generation of railway technology. The powerful and economical Siemens propulsion systems reduce the annual energy costs by 5 million rupees (roughly €80,000) per train.

## 40%



- The One Stop Breast Clinic travels throughout the Mumbai area and stops at enterprises as well as residential and public buildings by appointment.
- Once the mammogram has been taken, it is immediately developed in the bus. As a result, women know within the shortest possible time whether further examinations are required.

Mobile clinics equipped with Siemens systems give people in rural areas of India access to medical care. And this isn't limited to remote regions: In Mumbai, the One Stop Breast Clinic is specialized in the early detection of breast cancer and can be seen making its rounds throughout the city.

Many people in remote areas of India have no access to medical care. For many, going to the nearest doctor's office or hospital means walking several hours to get treatment, and this is too far for the seriously ill and the elderly. In response to this challenging situation, employees at Siemens India developed the first mobile clinic in 2001. The prototype was so successful that numerous NGOs took up the idea and ordered additional mobile clinics. Today there are 18 mobile clinics with Siemens healthcare technology in service throughout the country. The medical practice in the bus is complete with an array of diagnostic equipment such as x-ray, ultrasound, mammography and electrocardiogram machines. In addition to an examination room, there is also a darkroom for developing x-ray images. The "clinic on wheels" has its own generator so that it can operate independently from the grid. Over the past six years, around 60,000 patients in the Bhimtal region in the state of Uttarakhand have received medical care thanks to the mobile clinics.

46

In Mumbai, 13,000 women have taken advantage of the breast cancer examinations offered by the mobile clinic over the past three years. The NGO Helping Hand operates a One Stop Breast Clinic which is equipped with a mammography system from Siemens. The team on the mobile clinic – all women – operates the mammography system and also informs patients about the risks of breast cancer and the options available for early diagnosis and treatment.

The mobile clinic is funded by the small fees paid by each patient and by contributions from more than 500 women who have survived breast cancer. This also enables many women living in Mumbai's slums to be examined in the mobile clinic free of charge. Helping Hand is very proud of its successful work: Within three years, 30 women were diagnosed with breast cancer at such an early stage that their chances of a full recovery are extremely high.



Less than 1 percent of the women in India have mammograms taken at regular intervals – in the U.S. the rate is more than 80 percent. The mobile One Stop Breast Clinic is set to change this for the women in and around Mumbai.

< 1%



- < The SevenHills Hospital opened in mid-2010 and is the largest clinic in India. Its infrastructure even includes 300 apartments for employees.
- The Siemens MAGNETOM Verio gives the hospital an advanced magnetic resonance imaging system and also helps the environment: Excellent diagnostic quality and optimized use of resources go hand-in-hand.

Between 2004 and 2009, India's economy grew more than 8 percent annually. As a result, the middle and upper classes improved their financial position and demanded high-quality medical care. Underprivileged patients at Mumbai's SevenHills Hospital also benefit from the first-class Siemens technology.

Unlike any other medical institution, Mumbai's private Seven Hills Hospital reflects the enormous progress taking place in India. With 1,500 beds and 36 operating rooms, it is the largest hospital in India and one of the largest in Asia. Mumbai's city council, the Brihanmumbai Municipal Corporation, leased an area of some seven hectares to the operators of SevenHills Hospital at a very low rate. As part of this public-private partnership, the clinic responded by committing to reserve 20 percent of its beds for underprivileged patients and charging them fees comparable to those in public hospitals. This arrangement thus gives the poor access to modern medical technology.

The SevenHills Hospital uses an advanced magnetic resonance imaging (MRI) system, the Siemens MAGNETOM<sup>®</sup> Verio. With its field strength of 3 Tesla, the system provides excellent image quality. Due to the large 70-centimeter opening of MAGNETOM Verio, patient comfort is improved which leads to less patient movement and thus enables physicians to capture sharper images. Claustrophobic and obese patients can now be examined under less difficult conditions. The system's 36-percent lighter weight and smaller footprint make its installation easier. And the environment also benefits from MAGNETOM Verio: During normal operation no helium is boiled off and more than 95 percent of its materials can be recycled.

The hospital also uses a SOMATOM Definition, a Siemens Biograph Molecular CT (mCT) as well as the Siemens Mammomat Inspiration, a digital mammography system. They are easy to operate and extremely efficient.

The SevenHills Hospital and the mobile clinic for breast cancer examinations exemplify the broad range of healthcare systems being developed in emerging countries and the challenges that need to be met. Siemens is committed to developing and providing technologies for both broad basic medical coverage and for high-end care.

So much weight is saved by the Siemens MAGNETOM Verio compared to the previous model. More than 95 percent of its materials can be recycled.

# 36%

## Interview

Dr. P. C. Seghal, Managing Director, Mumbai Railway Vikas Corporation (MRVC)

#### Siemens Sustainability Report: Dr. Seghal, can you tell us something about the history of the Mumbai Urban Transportation System and the challenges you face today?

P.C. Seghal: When India was ruled by the British, they realized the commercial importance of Mumbai. Since they needed a good transport system, they began building railway systems in 1925. Today, Mumbai is spread over a vast area and people commute from 30 to 40 kilometers, so improvements were urgently needed. Over the past 50 years, the number of passengers had grown by 800 percent while the number of trains increased by only 282 percent. As a result, we transported roughly 16 people for each square meter of the train during rush hours. Our goal was to reduce this load by half. Furthermore, the ventilation of the trains was not very good and there were also problems with the lighting and the passenger information system. So we decided to improve the existing infrastructure and expand the overall system.

Together with consultants and the World Bank, we determined that an investment of roughly US\$2.5 billion was needed for the first phase – and this sum was provided by the World Bank. In addition, the Rail Vikas Nigam Ltd. (RVNL) was founded to carry out the project.

#### Where have you made investments?

First we had to invest in additional infrastructure. The problem, however, was that there were slums on the land where we needed to lay additional tracks. With the help of the government, we built 15,000 houses for about 100,000 people. These houses were provided to the dwellers rent-free. Only then could we lay two additional tracks for a distance of 19 kilometers.

Then we decided to replace our rolling stock with state-of-the-art technology. To boost capacity, the frequency of trains was increased and each train operated with twelve coaches, rather than nine. As a result, we increased passenger capacity by around 60 percent.

# Those were ambitious plans. What changes had to be made in the technology?

The capacity of the old direct-current traction system had reached its limits, so we had to switch to alternating current. With that change, the entire fleet of rolling stock and the old traction system could no longer be used. In addition, we decided to use regenerative braking systems for the new trains. And there were other things on our wish list: bigger windows, a new signaling system, improved lighting, reliable passenger information, better ventilation and pneumatic suspension.

We opted for international competitive bidding and were happy that Siemens met all the criteria and won the contract for delivering the electrical equipment for the trains, which were built by the Integral Coach Factory (ICF) in Chennai. Assembly and delivery of the new trains was impressive: within three years, 112 trains with twelve coaches each were delivered. And I must add that Siemens did a fantastic job. The challenge was to put new trains in operation on the existing tracks without interrupting service for 7.1 million people.

#### You mentioned the regenerative braking system. What are the energy benefits? And what is the status on capacity increase?

With the regenerative braking systems, we can reduce our energy consumption by around 40 percent, and that is the highest rate in the world. Rough estimates say that each new train saves energy worth 5 million rupees, about €80,000 a year. And when all 112 trains are operating, we will save about 560 million rupees (about €8.85 million) in annual energy costs. We've estimated the effect the replacement of all trains will have on energy consumption: Our energy savings should total around 1.5 billion rupees and we will generate 300 million kilos less CO<sub>2</sub>. So far, we have increased operating capacity by 34 percent. Overcrowding has declined by 20 percent and we are now operating at twelve people per square meter. And we have increased the speed of the trains: On the city's outskirts, the maximum speed is now 100 kilometers per hour, which reduces the trip by about 20 minutes each way.

Further information on pages 42-45.

"The new trains will enable us to save about 560 million rupees in energy costs annually."



Dr. P. C. Seghal, Managing Director, Mumbai Railway Vikas Corporation

 $20.6\,$  million people live in the greater area of Mumbai 1.0 tons of CO<sub>2</sub> is the per capita emission per year  $1,\!122$  is the number of people Siemens employed in Mumbai in 2010

US\$2,000 is the per capita GDP per year

 $135\,$  liters is the daily per capita water consumption

Mumbai at a glance

Other sustainable Siemens projects in Mumbai

For us, sustainability also means taking our social responsibility seriously. That's why we are committed to offering long-term solutions for a better society.

#### Lighting ENERGY-SAVING LANDMARK

The Bandra Worli Sea Link was opened in Mumbai in 2009. This bridge is among the most innovative and complex building projects ever carried out in India. The eight-lane bridge is 5.6 kilometers in length and spans Mahim Bay to connect suburban Bandra with the Worli precinct in central Mumbai. Energy-saving lighting from Siemens' subsidiary OSRAM puts the spotlight on this impressive landmark. Compared to standard high-pressure sodium lamps, the innovative OSRAM NAV SUPER lamps have a service life that is up to 25 percent longer and deliver up to 20 percent more light. As a result, the bridge could be illuminated with fewer light poles.

#### **Energy SPACE-SAVING SUBSTATIONS**

Mumbai is growing rapidly and the city's energy consumption is on the rise, requiring the expansion of a large number of power substations. This is a major challenge in the city center, where - as in most megacities around the world - land is scarce and expensive. However, modern gas-insulated switchgear from Siemens was an ideal solution that met the requirements of Tata Power, the city's power utility. Obsolete air-insulated switchgear was replaced with modern Siemens equipment to increase power capacity without having to expand the substations themselves. The change also improved reliability, availability and safety.

#### Social responsibility HELP FOR MUMBAI'S ORPHANS

Since 2003, Siemens Mumbai has supported the St. Catherine's Home, an orphanage in the Bandra precinct of the city. Siemens Mumbai has committed to giving more than 100 children a "normal" childhood. Every year, the company makes a considerable financial contribution to cover the costs of room, board and education for these children, not to mention the renovations and modernization required at St. Catherine's Home. In addition, employees at Siemens Mumbai spend some of their time working as volunteers at the home. They spend their free time teaching the children arts and crafts, music, sports, computer technology, mathematics and science.

#### **Consent INTEGRITY PACTS FOR CLEAN BUSINESS**

Since 2009, Siemens India has signed about 40 Integrity Pacts with key public sector organizations. Following discussions with these customers and Transparency International India, Integrity Pacts are now included in tender requirements. For further information about Siemens Collective Action, see: www.siemens.com/sr/collectiveaction

Sustainability is our guiding principle, a key factor in all we do. In part I of the Sustainability Report, we provided information on particular projects and the effects they have on our customers and society. Part II uses selected indicators to illustrate how we integrate sustainability in our corporate policy and how Siemens fared in fiscal 2010 in its efforts to meet the economic, environmental and social demands placed on it.

## Contents part II

#### Introduction

- 54 Key performance indicators 2010
- 56 Reporting method

#### Strategy

- 57 One Siemens
- 57 Materiality portfolio
- 58 Cooperation
- 59 Organization
- 60 Outlook

#### Facts and figures

- 62 Innovation
- 65 Customers and portfolio
- 68 Compliance
- 71 Environmental protection
- 77 Product responsibility
- 80 Occupational health and safety management
- 83 Employee
- 87 Suppliers
- 90 Corporate citizenship
- 95 PwC Independent Assurance Report

#### Indices

- 98 UN Global Compact
- 100 UN CEO Water Mandate
- 101 Global Reporting Initiative

#### **Further information**

- 102 Disclaimer
- 104 Information resources
- 106 Web overview

## Key performance indicators 2010

(Figures for fiscal 2009 in brackets)

#### ECONOMIC ....



Revenue from the Siemens Environmental Portfolio, see page 66.



#### ENVIRONMENT

million tons

Annual reduction of greenhouse gas emissions at customers' locations attributable to products and solutions from the Siemens Environmental Portfolio, see page 66.

percent

Improvement in environmental performance: CO<sub>2</sub> emissions, energy, see page 73.

## 25) percent.

Improvement in environmental performance: Primary energy and district heating, see page 73.

#### EMPLOYEES AND SOCIETY



Women in management positions, see page 83.



Women hired, see page 84.

(17.4) percent Employee fluctuation rate, see page 84.

Introduction 53 54

Key performance indicators 2010 54

56 Reporting method

57 Strategy

#### RANKINGS





position -----

Position in Carbon Disclosure Leadership Index "Top 10% of Global 500 Companies," Sector "Industrials."

11 (13)

Improvement in environmental performance: Electrical energy, see page 72.



Improvement in environmental performance: Water, see page 75.

# 10 (12)

Improvement in environmental performance: Waste, see page 75.

fatal accidents Fatal work and commuting accidents (Siemens), see page 81. 560 (562)

Expenditure on continuing education per employee, see page 85.

ightarrow The direction of the arrow shows the absolute trend of the respective indicator.

97 Indices

## Reporting method

#### **Reporting approach**

Our Sustainability Report 2010 describes the strategy, organization, initiatives and goals for ensuring sustainability at Siemens. It not only continues and supplements last year's Sustainability Report, but also serves as our annual progress report on implementing the United Nations CEO Water Mandate and the Global Compact's ten principles. Our Report is oriented to the recommendations of the Global Compact and Transparency International regarding anticorruption reporting.

#### **Review period and report boundaries**

This Report and its facts and figures are based on activities during Siemens' fiscal year 2010 (October 1, 2009 – September 30, 2010). Any exceptions are indicated as such. In particular, the presentation of the information and targets in this Report does not take into account any of the planned organizational changes and announced or already executed portfolio transactions during fiscal 2011. In general, all of our fully consolidated companies are covered by the Report. Here, too, possible exceptions regarding the data are indicated and explained. Minority equity investments are not included in our sustainability reporting. To provide an up-to-date picture of the company, we also include information about important developments in fiscal 2011 up to the editorial deadline on March 15, 2011, considering the limitation explained above.

#### **Data collection**

Given Siemens' size and global spread, gathering data poses a major logistical challenge. Moreover, our companies throughout the world are required to comply with local regulations concerning the compilation and definition of performance figures, which means that the generated data is not always comparable. Where applicable, we point out any significant limitations in the information presented in the Report. As a rule, no company-wide standards exist for the information published in the Sustainability Report. This applies in particular to specific financial figures, including, for example, the revenue attributable to the Siemens Environmental Portfolio and R&D expenditures for energy-efficient and ecofriendly technologies. As a result, these figures may not be comparable with the data published under the same or similar designations by other companies. The data published in our Sustainability Report is collected through various internal reporting systems which, for the most part, are different from those applicable to the financial information presented in our Consolidated Financial Statements. In particular, the standards and controls applied and the computer systems used during the preparation of the data can be less comprehensive in comparison. We reserve the right to change our internal guidelines regarding the inclusion of data in the Sustainability Report without prior announcement.

#### **External review**

Not only have we prepared our Sustainability Report to high quality standards, but we have gone beyond typical industry practices by voluntarily commissioning a full and independent audit of the Report by PricewaterhouseCoopers AG Wirtschaftsprüfungsgesellschaft (PwC). The auditors' Independent Assurance Report can be found on page 95. For such limited assurance reviews, which provide a limited degree of certainty, the review procedures are not as extensive as for a year-end review, such as for our financial reporting. The auditors merely confirm that nothing has come to their attention during the audit that would cause them to believe that the information contained in the Report departs materially from the relevant sustainability reporting requirements.

#### **Editorial notice**

All references to tons in the Sustainability Report refer to metric tons.

Our Sustainability Report 2011 is scheduled for publication in early 2012.

53 Introduction

56

- 54 Key performance indicators 2010
- 56 Reporting method
- 57 Strategy
- 57 One Siemens
- 57 Materiality portfolio
- 58 Cooperation 59 Organization
- 60 Outlook

## Strategy

Megatrends – demographic change, urbanization, climate change and globalization - are affecting and defining lives and economies throughout the world. These game-changing forces are shaping our business by creating new markets and opening up valuable new opportunities. Yet they also harbor significant risks that need careful management. Alone a value-based, sustainability-driven company committed to living its principles can minimize these risks and master these challenges to optimally leverage emerging opportunities for its stakeholders.

#### **ONE SIEMENS, OUR FRAMEWORK** FOR SUSTAINABLE VALUE CREATION

We're an integrated technology company You can find more aiming to sustain profitable growth and about One Siemens and its create long-term value for all our stake- in our Annual Report 2010 holders. To help achieve this, we rolled out One Siemens - a new framework for one-siemens sustainable value creation and capital-

financial target system and on our website at: www.siemens.com/

efficient growth - in fiscal 2010. We intend to continuously improve our performance relative to the markets and our competitors.

We've defined three strategic directions:

- > We're focusing on innovation-driven growth markets. They are fundamental to Siemens' core business. Our portfolio management also follows the same precept: We proactively and systematically adapt our portfolio to capture and maintain No. 1 or No. 2 positions in all our current and future markets. And we're setting ambitious targets for the further development and expansion of our Environmental Portfolio (see page 65).
- > We're getting closer to our customers. Market proximity is a key factor in sustainable growth, and global presence is our hallmark. We are building on this strength to steadily reinforce our position in growth markets - for example, by offering more products, solutions and services aimed at rapidly expanding entry-level market segments. We are supporting these efforts by diversifying our service business and further sharpening our customer focus.

> We're leveraging the power of Siemens. As an integrated technology company, we offer our customers substantial value-add. The creativity, inventive spirit and commitment of our people give us a crucial edge here. To ensure we keep that edge, we not only encourage lifelong learning and development throughout our global workforce, but also foster diversity in all units and at every level of our organization. Leveraging the power of Siemens also means strict adherence to clear principles of integrity – something we also expect of our partners and suppliers.

#### **GUIDED BY SUSTAINABILITY AND MATERIALITY**

Sustainability is the guiding principle of our corporate strategy. All our actions are governed by the fundamental resolve to act responsibly on behalf of future generations to ensure economic, environmental and social progress. Our sustainability activities are a decisive help in achieving our objectives of generating profitable growth and creating long-term value for our stakeholders.

We regularly identify sustainability topics based on their importance for Siemens and our stakeholders, and prioritize them on the principle of materiality. These topics are the basis of our Siemens Sustainability Program (see below) and are subsequently implemented by our specialist functions, Sectors and Regions.

Our materiality portfolio highlights key sustainability topics and their importance for our stakeholders and Siemens. The portfolio is prepared annually in a process that closely inte-

grates analyses of general trends, our orientation to megatrends, and intensive materiality portfolio at: dialogues with our stakeholders. During www.siemens.com/ materiality fiscal 2010, we consulted more than ....

30 external stakeholders and experts from science, industry, politics, non-governmental organizations and consultancies. Internal working groups combined the outcomes of these dialogues with the assessments of specialist functions and the results were then discussed with our Sustainability Board and the Siemens Sustainability Advisory Board, a high-level panel of independent experts. The result is our 2011 materiality portfolio, shown here, which defines our sustainability roadmap for the current fiscal year.

Our materiality portfolio 2011



By concentrating on the topics presented in our materiality portfolio, we are better able to seize appropriate opportunities, minimize risks and live the values we stand for. How this works is best demonstrated with the help of a few examples.

The innovative products and solutions in our Environmental Portfolio, for instance, present exceptional growth opportunities for Siemens. Our primary goal is to tap these opportunities and systematically expand our Environmental Portfolio. Specifically, we aim to boost revenue from our Environmental Portfolio to at least €40 billion by the end of fiscal 2014 and help our customers reduce their carbon emissions by 300 million tons by the end of fiscal 2011. To accomplish this, we will rely even more on focused cooperation among individual company units and on joint research initiatives with outside partners.

Our Environmental Program, introduced to reduce our carbon footprint and boost our resource and energy efficiency, exemplifies what we're doing to take advantage of opportunities. Using high-efficiency technology in our own manufacturing operations not only plays an important role in our risk management by helping us hedge against rising energy costs, but also enables us to showcase our capabilities to customers and demonstrate what they can achieve with our solutions.

Finally, the way we manage compliance also underscores how we go about minimizing risks and taking advantages of the resulting opportunities - on a broad scale that extends beyond the company itself: Within our wider sphere of influence, we are engaged in various multi-stakeholder and cross-sector initiatives aimed at jointly combating corruption in the markets in which Siemens conducts business. With the Siemens Integrity Initiative, we will be supporting projects around the world which fight corruption and fraud with a total funding volume of US\$100 million over the next 15 years.

#### COOPERATING FOR SUSTAINABILITY

We believe that complex, interlocking sustainability challenges and topics of the kind highlighted in our materiality portfolio benefit in particular from close cooperation with stakeholders.

Maintaining an intensive dialogue with You can find a list partners along the supply chain and with external stakeholder groups and organizations is especially important, since sustainable and responsible practices can't

of organizations we're involved in at: www.siemens.com/ memberships

be achieved in isolation: They require concerted initiatives involving policymakers, industry and society. Examples here include the Siemens Integrity Initiative, cooperation with our suppliers for greater sustainability in the supply chain, and

53 Introduction

57 Strategy

- 57 One Siemens
- 57 Materiality portfolio
- 58 Cooperation 59 Organization
- 60 Outlook

joint product development programs with customers. (You can find out more in the chapters that follow.)

Moreover, we're fully committed to following international sustainability standards and guidelines, which is why we joined the UN Global Compact in 2003 and signed its CEO Water Mandate in 2008.

Siemens is also a participant and partner in numerous major national and international organizations. For example, we work with leading global sustainability organizations like the World Business Council for Sustainable Development (WBCSD), the World Economic Forum (WEF) and the World Resources Institute (WRI). We are also involved in various initiatives, like these examples:

- > As part of the WBCSD's Urban Infrastructure Initiative, we're working with numerous partner organizations to promote sustainable urban development.
- > We're sharing experience we gathered in the Scope 3 project run by the WRI and WBCSD's Greenhouse Gas Protocol Initiative to promote greater transparency in carbon emissions reporting.
- > As a member of the steering committee of the Global Compact's Caring for Climate initiative, we play a major role in shaping its future strategic direction.

As part of Future Dialogue, which we organized with the Max Planck Society in association with the Economist Conferences, we share and discuss ideas on our planet's future with international experts.

You can read more about Future Dialogue at:

#### SUSTAINABILITY MANAGEMENT -A COMPANY-WIDE TASK

Efficient sustainability management is a company-wide task that requires a clear organizational structure and a thorough anchoring of sustainability in our corporate culture. To coordinate and manage our sustainability activities efficiently, we established the Sustainability Office, the Sustainability Board and the Siemens Sustainability Advisory Board, a panel of outside consultants, in 2009.

The Siemens Sustainability Board – the central steering and decision-making body in charge of sustainability - is chaired by Managing Board member and Chief Sustainability Officer

Barbara Kux. The Sustainability Board, Our sustainability staffed by representatives of the three organization at a glance: Sectors and all relevant specialist func- www.siemens.com/st/ organization tions, convenes regularly to set the stra-

tegic focus and approve appropriate measures and initiatives. The Chief Sustainability Officer also heads our Sustainability Office, which is responsible for implementing sustainability strategy and for coordinating our company-wide programs and initiatives.

#### THE SIEMENS SUSTAINABILITY PROGRAM -**OUR PLANS FOR 2011**

We've further refined our 2010 Sustainability Program for fiscal 2011. Its targets and activities center on three fields: business opportunities, walk the talk and stakeholder engagement. To gain objective perspectives on our sustainability challenges and performance, we formed the Siemens Sustainability Advisory Board, a body consisting of nine independent individuals from science and industry who represent a variety of disciplines and who hail from different continents. The board meets at least twice yearly and enriches and advances our Sustainability Program through expert advice and concrete activities.

Our sustainability organization interacts closely with executives in charge of company units to collaborate on establishing targets, developing programs and initiatives, and defining key performance indicators. These KPIs are exceptionally important - so much so that they figure prominently in our management performance targets. As of fiscal 2010, for example, the development of our Environmental Portfolio is a factor in the bonuses paid to members of our Managing Board. In addition, executive compensation has for quite some time been tied in part to meeting specific targets defined in our Compliance Program.

The actual implementation of programs, initiatives and targets, however, is not the task of the Sustainability Board and the Sustainability Office; this is the responsibility of our operating units - the Sectors, Divisions, Business Units, Clusters and Regions. All units are supported in this task by specialist functions like Environmental Protection and Corporate Citizenship (see pages 61-94).





Target >€40 billion by the end of fiscal 2014
Target 300 million tons of CO<sub>2</sub> by the end of fiscal 2011

#### LOOKING AHEAD

During the past fiscal year, we made substantial progress with our Sustainability Program and related measures, once again ranking as the Diversified Industrials Sector Leader in the prestigious Dow Jones Sustainability Index (DJSI) as well as first in the Carbon Disclosure Project (CDP) Global 500. Yet we're still not where we want to be: We need to work harder to promote our vision of sustainability outside the confines of our company. We're eager to participate in shaping a low-carbon economy, and we can help make this happen with the products and solutions in our Environmental Portfolio. At the same time, bolder political steps must be taken to establish and drive sustainability as a guiding principle in every society.

We've taken our initial steps and are making solid progress. To find out more about just how far we've come in various action areas over the past year, continue reading in the "Facts and figures" section that follows.

 $www.siemens.com/sr/sustainability\-strategy$ 

57 Strategy

- 57 Materiality portfolio
- 58 Cooperation 59 Organization
- 60 Outlook

<sup>57</sup> One Siemens

## Facts and figures

- 62 Innovation
- 65 Customers and portfolio
- 68 Compliance
- 71 Environmental protection
- 77 Product responsibility
- 80 Occupational health and safety management
- 83 Employe
- 87 Suppliers
- 90 Corporate citizenship
- 95 PwC Independent Assurance Report

### Innovation

Innovation has always been the key to mastering sustainability challenges. By anchoring innovation as a core task and by developing innovative concepts, we safeguard our leading position as an integrated technology company that operates sustainably and further reinforce our pioneering role.

Siemens is focusing on growth markets being driven by innovation and technology, in which we can take a leading position. Our research activities center on developing the requisite pioneering technologies for that purpose. To achieve this, we need the best experts in the world as well as an open innovation strategy. We are applying our "Open Innovation" approach, introduced in fiscal 2009, to identify and develop new innovation opportunities within our own company and in cooperation with outside partners.

#### **RESEARCH AND DEVELOPMENT A CORE TASK**

Highlighting the significance of innovation management at Siemens, a Managing Board member serves as Chief Technology Officer (CTO) and is responsible for our Corporate Technology (CT) research unit. Our innovative strength is regularly a topic at the Managing Board's annual strategy meetings. We assess this strength on the basis of three criteria: securing the company's long-term future, enhancing our technological competitiveness, and optimizing the allocation of resources for research and development (R&D).

Research and development at Siemens takes place at CT and within the Sectors. While the Divisions perform business-related research and development, CT's activities include driving cross-Sector innovations, supporting what are known as openinnovation networks, and fostering contacts with universities and the world of research and science. Worldwide, CT has more than 5,000 employees working at 13 locations. The unit's key research centers are in Germany, the United States, Austria, Slovakia, Russia, India, China, Japan and Singapore.

Corporate research and development is organized into approximately 50 global technology fields in several general areas: materials and microsystems, production methods, security,

software and engineering, power engineering, sensors, automation, medical at playing a leading ro information systems and imaging meth- Learn more at: ods, information and communications www.siemens.com/ technologies, the extraction and process-

Corporate Technology aims in technology and patents.

corporate-technology

ing of raw materials, and off-grid power generation. Centrally financed lighthouse projects aimed at tapping new business opportunities for Siemens also work on special sustainability themes, such as developing a new kind of electrolyzer, CO<sub>2</sub> retrieval, or enhancing energy efficiency in Smart Grids and industrial plants.

An important cross-business assignment for CT is to leverage synergies among the operating units' various technologies and application fields.

#### RESEARCH AND DEVELOPMENT FIGURES

We have always been a pioneer - from the first Siemens innovation, the electric pointer telegraph, down to the present day. Around 30,100 employees at 178 main research and development locations worldwide contributed a major share to this effort in fiscal 2010.

Our commitment to R&D is also reflected in our expenditures: At €3.846 billion, they amounted to 5.1 percent of our total revenue, as in the prior year.

In the course of fiscal 2010, 8,800 invention reports and 4,300 first patent filings helped us maintain that status. In fiscal 2010, Siemens invested around 25 percent of its total R&D expenditures in www.siemens.com/ energy-efficient and ecofriendly tech-

Research on solutions that help strengthen and further expand our Environmental Portfolio is a key focus of our work. Learn more at:

corporate-technology

nologies, primarily in the Energy and Industry Sectors.

- Innovation 62
- 65 Customers and portfolio 68
- Compliance 71 Environmental protection
- Product responsibility

#### Figures for research and development

	FY 2010	FY 2009	FY 2008
Spending on R&D (in billions of euros)	3.846	3.900	3.784
R&D intensity <sup>1</sup>	5.1%	5.1%	4.9%
Invention reports <sup>2,3</sup>	8,800	7,700	8,200
Patent applications <sup>2, 4</sup>	4,300	4,200	5,000
Granted patents	58,000	56,000	55,000
R&D intensity <sup>1</sup> Invention reports <sup>2,3</sup> Patent applications <sup>2,4</sup> Granted patents	5.1% 8,800 4,300 58,000	5.1% 7,700 4,200 56,000	4.9% 8,200 5,000 55,000

R&D intensity is defined as the ratio of R&D expenses to revenue

Prior-year figures have not been adjusted for businesses disposed of. Number of inventions submitted by Business Units based on internal reporting.

First filings as part of the inventions submitted to patent offices

The programs launched in fiscal 2009 to continue enhancing our innovative strength - such as the Idea Contest as part of the Open Innovation Initiative - paid off in 2010. For example, the number of invention reports, which had declined to 7,700 in 2009, climbed again to 8,800. We expect to further improve our innovative strength with the help of initiatives already in place, such as the "Inventor of the Year" award, innovation workshops, idea contests, and the active implementation of Open Innovation concepts.

#### MAKING THE MOST OF EMPLOYEE KNOWLEDGE

We value the knowledge and creativity of each and every Siemens employee. We also employ unconventional means to tap these valuable assets for research. In fiscal 2010, our first in-house, online contest for sustainability ideas attracted 3,520 participants from around the world. Prizes were awarded to the best of the 850 entries, such as an early warning system for flooding and new concepts for inner-city logistics.

97 Indices

#### Position in patent office statistics<sup>1</sup>

	2009	2008	2007
Germany	3	2	2
Europe	2	2	3
United States	13	12	11

Complete figures for calendar year 2010 were not available from the patent offices as of the publication date. Sources: DPMA (Deutsches Patent und Markenamt): published patent applications, EPA (Europäisches Patentamt): patent applications, IPO (Intellectual Property Owners Association): patents granted

The "Inventor of the Year" award, our most prestigious prize for research and development, is presented annually to outstanding Siemens inventors who produce a significant number of patents and whose inventions are of major technical and economic significance. In November www.siemens.com/sr/ 2010, the award went to twelve experts

The Inventors of the Year 2010 account for a broad range of new developments, from energy-saving light-emitting diodes to self-learning building automation For more information, see: inventor-of-the-year

who together accounted for 1,300 individual patents. Since teams often come up with better results than individuals, CT also encourages various forms of innovation workshops that help expand our patent portfolio, develop new products and solve technical problems.

Our research plays a major role in the great success of the company's Environmental Portfolio (see also page 65): Solutions that supplement the portfolio are the focal point of our research work. Themes that concern us here include enhancing efficiency in renewable and conventional power generation, expanding intelligent power grids ("Smart Grids"), using energy efficiently in buildings and industrial systems, and networking various transportation modes intelligently with the assistance of traffic management systems.

To share and discuss their ideas and projects, our technology experts meet on TechnoWeb 2.0, a platform on the Siemens intranet. The platform fulfills three important functions: helping research employees connect with one another, establishing and building networks, and winning support for their own projects.

102 Further information

95 PwC Independent Assurance Report

<sup>83</sup> Employees 87 Suppliers

<sup>90</sup> Corporate citizenship

#### TAPPING OUTSIDE KNOWLEDGE

Making outside knowledge accessible for our company and opening our ideas to the outside world is the principle behind a whole series of various activities conducted as part of the Open Innovation initiative:

- > Siemens operates the "Siemens Center of Knowledge Interchange" cooperation program, a worldwide network with selected international partner universities, to promote knowledge transfer between industry and science.
- > We perform joint research projects with universities and institutes.
- > Siemens pursues four different approaches under the principle of "distributed creativity" - idea contests, subject-specific web discussions for experts, engaging external technology brokers to seek research contacts for companies by way of Internet platforms, and Open Expert networks on interdisciplinary themes for experts from the three Siemens Sectors.
- > We work with Siemens Venture Capital to invest selectively in technology-driven startups (learn more at: www.siemens.com/sr/venture-capital).
- > We found startups based on technologies that Siemens has developed but cannot itself implement directly in products. For example our Siemens Technology Accelerator Ltd. subsidiary markets potentially profitable innovations through spin-off companies (learn more at:

www.siemens.com/sr/technology-accelerator).

> We sign license exchange agreements with our competitors to permit reciprocal use of patents and to open the way for other companies to gain access to licenses for Siemens technologies.

By expanding external cooperation in Examples of our cooperaopen networks, we further enhance the efficiency of our research activities. Furthermore, new forms of cooperation in innovation are a fundamental require- research-cooperations ment if we are to play an active role in

tive research efforts such as the refinement of neuronal networks – are available at our website: www.siemens.com/sr/

shaping the path toward achievements like a low-carbon economy or new electromobility concepts.

#### HYDROGEN ENERGY STORAGE

The increasing use of large-scale renewable energy sources such as wind power plants is an effective contribution toward reducing CO<sub>2</sub> emissions in power generation. The drawback here, however, is that natural fluctuations in this type of power generation necessitate energy storage capacities in the terawatt-hour (TWh) range. Chemical storage media like hydrogen are especially interesting here, since hydrogen can be reused in a number of ways. One possibility is re-electrification in gas turbines, or (in the future) in fuel cells. Hydrogen is also necessary as a chemical component in processing CO<sub>2</sub>, which further reduces CO<sub>2</sub> emissions. To generate hydrogen from surplus renewable energy, Corporate Technology has developed a new 100-bar PEM electrolysis technique with a high dynamic capability. This is a prerequisite for smoothing fluctuations in the power grid and making use of surplus capacity. This is the only way to achieve cost-effective production of hydrogen by electrolysis. A 100-kilowatt unit in container configuration will soon be set up and tested as a dynamic network component in a project.

www.siemens.com/sr/innovation

Innovation goals	
------------------	--

Goal	Target date	Status
Maintain R&D intensity (defined as the ratio of R&D expenditure to revenue) over time.	ongoing	R&D expenditures in fiscal 2010 were again 5.1 percent of revenue (fiscal 2009: 5.1 percent).
Maintain the number of inventions at high level.	ongoing	The number of invention reports grew from 7,700 in fiscal 2009 to 8,800 in fiscal 2010.
Maintain the number of patent first-filings at high level.	ongoing	First patent filings increased from about 4,200 in fiscal 2009 to around 4,300 in fiscal 2010.
Maintain the number of granted patents at high level.	ongoing	The total portfolio grew from 56,000 in fiscal 2009 to 58,000 in fiscal 2010.
		·

- Innovation 62
- Customers and portfolio 65 68 Compliance
- 71 Environmental protection

## Customers and portfolio

Business success is a key element of sustainability. And decisive for business success are long-term customer partnerships and a strong local presence in the markets where our customers operate. Our target system for sustainable value creation, which we call One Siemens, places a high priority on serving innovation-driven growth markets, supported by the ongoing expansion of our customer-oriented Environmental Portfolio.

#### THE ENVIRONMENTAL PORTEOLIO IS A KEY DRIVER OF SUSTAINABLE GROWTH<sup>1</sup>

The Siemens portfolio is primarily comprised of capital goods with long product lifecycles and long service lives for our customers.

Thanks to the close relationships cultivated with our customers, we develop a considerable share of our portfolio directly with them, and often even in their own companies. This is particularly true of our Environmental Portfolio, in which we bundle all those products and solutions that directly contribute to environmental and climate protection. The components of our Environmental Portfolio fall into three main categories:

- > First, products and solutions with especially high energy efficiency, such as combined cycle power plants, energysaving lamps or intelligent building systems;
- > Second, equipment and components for renewable energies, such as wind turbines and solar power plants; and
- > Third, environmental technologies, for example to provide clean water and air.

Products and solutions qualify for inclusion in our Environmental Portfolio on the basis of clearly defined processes and stringent criteria. Once a year, the Siemens Sustainability Board decides on changes in the composition of the Portfolio. In fiscal 2010, for example, we added new or supplementary components for solar thermal power plants, along with highly efficient transformers and additional efficient gas turbines.

97 Indices

In fiscal 2010, our Environmental Portfolio generated revenue of €27.6 billion. We thus reached our target of €25 billion, which had originally been announced for 2011, much earlier than planned.

In view of this success, we have set a new, highly ambitious growth target: We intend to increase the revenue generated by products and solutions in our Environmental Portfolio to at least €40 billion by the end of fiscal 2014. We aim to reach that goal by introducing innovative new products and by achieving above-average growth in various fields such as renewable energies.

With the help of our Environmental Portfolio, our customers reduce their CO<sub>2</sub> emissions, lower their energy costs, enhance their productivity and thus improve their success. In 2010, for

example, we were able to lower the annual CO<sub>2</sub> emissions of our customers by the Siemens Environmental roughly 267 million tons. This number www.siemens.com/sr/ was calculated on the basis of the products and solutions installed since 2002,

Portfolio, visit: environmental-portfolio

that had not yet reached the end of their lifecycle. We are therefore confident that we can reduce our customers' CO<sub>2</sub> emissions by roughly 300 million tons by the end of fiscal 2011.

#### SUCCESS ON THE BASIS OF LONG-TERM CUSTOMER **RELATIONSHIPS IN A SPIRIT OF PARTNERSHIP**

Sustainable customer relationships are the basis for all our businesses - not only the share generated by our Environmental Portfolio - and have been for over 160 years. We employ a structured key account management approach throughout the company to ensure that our products and solutions are tailored to the size and regional structure of our customers.

Each of our Sectors, Divisions, Business Units and Cross-Sector Businesses bears worldwide responsibility for its business, revenue and profit. Most Siemens customers are small- and medium-sized enterprises which we support locally. For major contracts or large-scale projects worldwide, we can serve our customers - according to their needs - from our respective headquarters. When implementing our customer-driven

102 Further information

87 Suppliers 90 Corporate citizenship

PwC Independent Assurance Report

Revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions are derived from various internal reporting systems that are generally different from those applicable to the financial information presented in our Consolidated Financial Statements. For further information, please refer to the disclaimer on page 102

<sup>80</sup> Occupational health and safety management

<sup>83</sup> Employees

#### | Figures on customers and portfolio

	FY 20101	FY 20091
Industry-specific key account management (MDB)	14	11
Revenue generated by the Siemens Environmental Portfolio (in billions of euros)	27.6	26.8
Reduction in the amount of CO <sub>2</sub> emissions of our customers attributable to products and solutions of the Siemens Environmental Portfolio (in millions of tons of CO <sub>2</sub> )	267	214

1 We added new products and solutions to the Siemens Environmental Portfolio in fiscal 2010, for which proof of fulfillment of the qualification criteria was previously not available. The revenue and CO<sub>2</sub> reduction figures for fiscal 2009 were calculated on a comparable basis; therefore, the 2009 revenue and CO<sub>2</sub> reduction figures presented in this report differ from those presented in the prioryear report.

regional activities, we can rely on a large international sales force managed by our regional Clusters and Regional Companies.

This approach is supplemented by our Executive Relationship Program. In this program, all members of the company's Managing Board stay in direct contact with selected customers and maintain an ongoing dialog with them to make certain they are always familiar with the customers' needs.

In order to coordinate the worldwide, industry-specific management of key accounts and take advantage of market opportunities, we have established Market Development Boards (MDB) which are focused on customer industries such as Chemicals, Pulp & Paper or Food & Beverages. The expertise of all Siemens Divisions relevant to the respective industry is combined and consolidated within these boards, which oversee the work of the corresponding key account managers. In this manner, we can offer our customers a company-wide spectrum of products, services and solutions from a single source. In addition, we regularly assess the strategic importance of the market opportunities available to our company. To help us here, we established three new Market Development Boards for Cities, Power Utilities and Data Centers in fiscal 2010. The Siemens Sales Board evaluates the degree of target fulfillment of all the Market Development Boards and makes sure that customer support is centrally coordinated and managed. This board also formulates the principles that are applied in the company's sales and customer support activities.

#### MEASURING CUSTOMER SATISFACTION

Knowing that our business success is critically dependent on the satisfaction of our customers, we have taken steps to measure their satisfaction, reinforce our customer orientation and monitor the corresponding developments. Among other measures, we introduced the Net Promoter Score (NPS) as a uniform, company-wide standard in 2010. This internationally recognized and commonly applied managerial performance indicator, which we determine annually on a worldwide basis by means of customer surveys, measures the referral rate of our customers. Our internal NPS target system, which is based on industry and regional benchmarks, is used to set the target values for the Sectors and Clusters. The NPS for 2010 was based on the results of 18,500 interviews, compared to 10,240 interviews in 2009. In consultation with our customers and based on their feedback and complaints, we formulated and implemented concrete improvement measures, including actions aimed at shortening service response times or improving the availability of spare parts. The meticulous handling of the information and comments received from our customers is an integral aspect of our customer support approach aimed at continuity.

Our customer management system has also been recognized by outside institutions. In 2010, for example, Siemens was ranked first in Customer Relationship Management in the "Diversified Industrials" category of the SAM Dow Jones Sustainability Index.

57 Strategy

- 62 Innovation
- 65 Customers and portfolio68 Compliance
- 71 Environmental protection
- 77 Product responsibility

#### ASSURING THE LONG-TERM QUALITY OF CUSTOMER SUPPORT

To assure the high quality and ongoing improvement of customer support at Siemens over the long term, we broadly implemented various training modules as part of our Account Management Excellence Program and launched the Sales Management Excellence Program. In connection with these programs, we conduct strength/weakness analyses and implement training and qualification-building measures as a key prerequisite for guaranteeing consistently high customer support standards worldwide.

Compliance with all laws and the company's internal guidelines and regulations is an elementary aspect of all our worldwide marketing and sales activities. Reflecting this, "conduct conformant with guidelines" is a key pillar of our training program. Under this program, our colleagues learn, for example, how to use our evaluation software to ensure the correct handling of invitations and gifts.

We also engage in structured communications with our customers. We regularly invite pacesetters in their respective industries to forums we call "Customer Days" to discuss ways of adapting our portfolio to suit their needs and to mutually develop future scenarios. Even during the recent financial and economic crisis, we pressed forward with efforts to provide optimal support to all our customers. We are aiming at generating further significant growth in fiscal 2011. To help achieve this, we established the three previously mentioned new Market Development Boards in 2010. As another important element of our strategic approach, we are working to create new products and solutions for growth markets and expand our service business even further. We are also pursuing our SMART (*Simplicity, Maintenance-friendly, Affordable, Reliable* and *Timely to market*) initiative, launched in 2008, by continually adding new products to our portfolio that are developed and manufactured in the Regions, for the Regions.

www.siemens.com/sr/customers

#### | Customer and portfolio goals

Goal	Target date	Status
Collect more than 15,000 interview results for the purpose of calculating the Net Promoter Score.	by 7/2010	Exceeded, with more than 18,500 interview results received.
Add new training modules for key account management.	by 4/2010	All five modules were completed in fiscal 2010.
Have more than 500 key account managers participate in account management training courses.	by 9/2010	Exceeded, with 660 participants.
Increase revenue generated by the Environmental Portfolio to at least €40 billion.	by 9/2014	At the end of fiscal 2010 we achieved revenues of $\in$ 27.6 billion.
Increase reduction in $CO_2$ emissions of our customers attributable to products and solutions of the Siemens Environmental Portfolio to 300 million tons.	by 9/2011	This value reached 267 million tons of $CO_2$ at the end of fiscal 2010.

97 Indices

83 Employees 87 Suppliers

90 Corporate citizenship

95 PwC Independent Assurance Report

<sup>80</sup> Occupational health and safety management

## Compliance

Compliance – strict adherence to all laws and regulations and our internal guidelines, particularly the Siemens Business Conduct Guidelines – is the basis for all our decisions and activities and an elementary component of integrity. Compliance is not a program; it is the way we conduct business and uphold integrity at Siemens.

## OUR COMMITMENT: ONLY CLEAN BUSINESS IS SIEMENS BUSINESS

Preventing corruption and other violations of fair competition has highest priority at Siemens. Our principle is: Only clean business is Siemens business. This means strictly complying with all laws and regulations and adhering to the principles of ethical business conduct defined in the Siemens Business Conduct Guidelines. These Guidelines are binding for all Siemens employees worldwide and focus on the prevention of corruption.

Siemens is expressly committed to international conventions and recommendations for combating corruption. That commitment is evidenced by the company's active participation in the United Nations

Additional information on compliance at Siemens can be found on the company's website at: www.siemens.com/sr/ compliance

Global Compact and by the fact that Siemens CEO Peter Löscher signed the letter initiated by the Global Compact urging ratification of the United Nations Convention against Corruption.

## IMPLEMENTING OUR INTERNAL RULES AND REGULATIONS

The Siemens Compliance System is divided into three action levels: prevent, detect and respond. A detailed description of our Compliance System can be found on the Siemens company website: www.siemens.com/sr/compliance

Tasks of the Compliance Organization:

- > We enable a successful sustainable business as a trusted partner and drive a continuous communication about the importance of compliance for Siemens.
- > We bundle the company-wide expertise for anti-trust and anti-corruption in all three dimensions (prevent, detect, respond).
- > All violations of law, regulations or Siemens procedures are compliance issues if they entail a risk of penalties or loss of reputation for Siemens. The Compliance Organization assures that all reported compliance violations are properly handled, analyzed and remediated together with the responsible Governance owners and management.
- > We have the governance for investigations and disciplinary response.
- > We drive collective action initiatives in order to level the playing field for clean business.

In the context of One Siemens (see page 57), our new target system for sustainable value creation, the company's compliance management has defined the following four compliance priorities for the medium-term. Based on these priorities, we will further refine the measures we take to prevent corruption and other violations of fair competition in the company:

- > We want to maximize the effectiveness and efficiency of our proven compliance processes and tools. This also includes legally conformant dealings with public officials and related persons, as well as with business partners and suppliers. For that purpose, we have introduced clearly defined regulations and implemented the processes necessary for enforcing them.
- > Compliance is a category of risk management at Siemens. Through compliance risk analyses, we want to take even better account of the particular conditions at our various businesses.

53 Introduction

57 Strategy

- 62 Innovation
- 65 Customers and portfolio68 Compliance
- 71 Environmental protection
  - 77 Product responsibility

#### Figures on compliance

	FY 2010	FY 2009	FY 2008
Cumulative number of participants in online trainings (in thousands) <sup>1</sup>	228	140	123
Cumulative number of participants in in-person trainings (in thousands) <sup>1</sup>	104	79	52
Inquiries submitted to the "Ask Us" help desk	3,077	3,992	3,836
Incidents reported to the "Tell Us" help desk and the ombudsman	582	565	539
therein under suspicion <sup>2</sup>	502	439	338

Since December 2007

Initial suspicion that requires further internal investigations in order to determine whether a violation occurred.

- > We want to anchor compliance more firmly in business activities company-wide.
- > We want to strengthen the commitment of all our stakeholders to the battle against corruption - in particular, through the Siemens Integrity Initiative and our participation in collective action.

Are external laws and regulations being observed? Are internal guidelines being followed? Have appropriate processes been effectively implemented? We verify compliance in a variety of ways:

- > Internally, by means of specific compliance investigations and through audits conducted by Corporate Internal Audit;
- > Externally, by means of independent audits of our financial statements, financial reports and sustainability reports, and by means of the work conducted by the Compliance Monitor Dr. Theo Waigel, who was appointed to that position in connection with the settlement reached with the U.S. Department of Justice and the U.S. Securities and Exchange Commission. After slightly more than two and a half years of monitoring and evaluating the Siemens Compliance System, Dr. Waigel presented his second report in October 2010, in which he certified that the Siemens Compliance Program, including its policies and procedures, has been reasonably designed and implemented to detect and prevent violations of the anti-corruption laws within Siemens.

97 Indices

#### COMPLIANCE INDICATORS

Additional compliance indicators can be found in our Compliance Progress Report for the fourth guarter of fiscal 2010. Siemens also reports on compliance-related issues in its Annual Report 2010, in- compliance-progresscluding in the Compliance report (Volume

The compliance progress report for the fourth quarter of fiscal year 2010 can be found on the company's website at: www.siemens.com/sr/

report

II, pages 30 to 33), in the Combined management's discussion and analysis (Volume II, pages 71ff.) and in the Legal Proceedings section in the Notes to the consolidated financial statements (Volume II, pages 206ff.). Information on the Siemens Compliance System can also be found on the company's website at: www.siemens.com/sr/compliance

#### COLLECTIVE ACTION AGAINST CORRUPTION

Siemens' compliance management efforts extend beyond the boundaries of our company and its direct business relationships. Within our wider sphere of influence, we are engaged in various multi-stakeholder and cross-sector initiatives aimed at jointly combating corruption in the markets in which Siemens conducts business.

Some examples:

> To support the development of compliance and ethical business standards in the Czech Republic, Siemens, together with the American Chamber of Commerce, has initiated the "Coalition for Transparent Business." The core element of the coalition quidelines for bidders in public tenders is the obligation to make relevant data of offers and contracts available to the public. Several organizations support the initiative which included independent third-party monitoring.

102 Further information

83 Employees 87 Suppliers

90 Corporate citizenship

PwC Independent Assurance Report

<sup>80</sup> Occupational health and safety management

- > In Russia. Siemens, together with the German Russian Chamber of Commerce and the International Business Leaders Forum, has initiated the Corporate Ethics Initiative. Since its launch in April 2010, more than 90 companies have signed the declaration which is based on the Principles Against Corruption Initiative of the World Economic Forum (PACI principles).
- > Siemens Chile is one of the founding members of EPEI, a Chilean Electrical Manufacturers Association. In fiscal 2010. Siemens successfully proposed that EPEI members enter into a Compliance Pact facilitated by a local NGO serving as a neutral third party. In addition, the Pact establishes the annual review of experiences related to the PACI principles, as well as the process to present, discuss and act on any infringement of the Pact.
- > In a broad coalition with chambers of commerce and other organizations. Siemens helped encourage the private sector in Thailand to take a leading role in fighting corruption. As a result of these efforts, twenty-seven leading Thai companies agreed to form a 'collective coalition to work against corruption' by adopting preventive measures at all levels. This coalition is also supporting and participating in the national anti-corruption strategy of the Thai government which mainly focuses on public procurement.

#### SIEMENS INTEGRITY INITIATIVE

On December 9, 2010, the World Bank and Siemens announced the first anti-corruption projects that will receive financing from the company's US\$100 million Integrity Initiative to pro-

mote clean markets. Projects that will be Details on all such projects supported by this initial tranche include assisting the Brazilian organization Insti- website at: tuto Ethos in ensuring the transparent www.siemens.com/sr/ award of infrastructure contracts for the

supported by Siemens car be found on the company's

integrity-initiative

Football World Cup 2014 and the Olympic Games 2016 in Brazil. In Europe, the newly founded International Anti-Corruption Academy is receiving funding for research and teaching. This Vienna-based international organization was set up to train anti-corruption experts from all over the world.

| Compliance goals

Goal	Target date	Status
<b>Compliance training</b> Internal training measures to be tailored more closely to specific target groups.	ongoing	Through our Advanced Compliance Officer Training, we offer in- depth continuing education courses to our experienced Compliance Officers, including courses on collective action and external stake- holder engagement. In addition, we are currently conducting a pilot project for a train-the-trainer concept, in which compliance training courses will be tailored to the needs of specific target groups.
Tone from the middle Employee understanding of compliance to be reinforced by exemplary behavior on the part of super- visors, encouraging everyone to act with integrity.	ongoing	The results of the worldwide employee survey 2010 (Global Engage- ment and Compliance Survey) and the second report of the Compli- ance Monitor issued in October 2010 confirm that compliance is also being understood and actively practiced in the middle management layers of the company.
Siemens Integrity Initiative The first funding round with a planned volume of approxi- mately US\$40 million to be implemented in accordance with the defined milestones, with funding contracts con- cluded for this amount by the end of 2010.	until 12/2010	Over 30 projects in 20 countries around the world have been select- ed for the first funding round, with a planned volume of approxi- mately US\$40 million. (Details on all funded projects can be found in the Internet at: www.siemens.com/sr/integrity-initiative).

- 62 Innovation
- Customers and portfolio 65
- 68 Compliance 71 Environmental protection
- 77 Product responsibility

## **Environmental protection**

Outstanding performance in environmental protection, healthcare management, and safety is essential if we are to seize business opportunities and minimize risks for people and the environment in the long term. Global environmental management systems and programs provide the framework for making successes measurable and for continuously improving our performance.

Occupational safety, environmental protection and health management are included in our Business Conduct Guidelines, which represent the basis for actions by all Siemens employees. Our policies and the "Principles of Environmental Protection, Health Management and Safety (EHS)" are derived from these guidelines.

In August 2009, Siemens integrated its company-wide governance for environmental protection, healthcare management and safety in the "Environmental Protection, Health Management and Safety (EHS)" unit. EHS has been under the responsibility of Brigitte Ederer, member of the Managing Board and head of Corporate Human Resources and Labor Director, since 2010.

#### **OUR COMPANY ENVIRONMENTAL PROGRAM**

The goal of our environmental management is to ensure continuous improvement of our environmental performance. We monitor and assess the environmental impact of Siemens'

business activities using parameters such Further information as energy consumption, resource consumption and emissions. In addition, we measure the environmental performance of our production locations that are obligated to implement an environmental

on monitoring and measuring environmental performance is available

www.siemens.com/sr/ environmentalprotection

97 Indices

management system by using so-called key performance indicators (KPIs), which are portfolio-adjusted performance measures standardized for plant revenue (production manufacturing costs). This enables us to consistently evaluate the company's environmental performance over time, independent of acquisitions and divestments. The indicators are the basis of our current environmental program, in which we set our first quantifiable company-wide targets. Our overall objective is to improve our environmental performance year by year, proceeding from base year 2006.

The development of environmental protection KPIs for Siemens is influenced by several factors, such as changes in a Division's energy efficiency or different rates of growth among the Divisions and their resource intensity as a whole.

At the end of fiscal 2010, we were heading in the right direction with the KPIs CO<sub>2</sub> emissions (status of the efficiency improvement: 18 percent), primary energy and district heating (23 percent) and water (28 percent) in order to reach or exceed our targets for 2011. For waste (10 percent) and power efficiency (11 percent), we still see major challenges.

We therefore intensively pushed our Energy Efficiency Program (EEP) throughout fiscal 2010: Overall, an additional 89 factories underwent an Energy Health Check and 21 of these locations were subjected to a detailed energy analysis in order to identify and evaluate further energy-saving potential in production and buildings. Corrective measures will be implemented at 15 of these 21 locations by the end of September 2011. Locally initiated energy savings projects were also carried out during the year. Siemens intends to invest €25 million by the end of fiscal 2011 to implement energy-saving projects identified by the EEP.

An additional company goal is to introduce environmental management systems at locations where they are required by the end of fiscal 2011.

#### INDUSTRIAL ENVIRONMENTAL PROTECTION IN FIGURES

A central element of our environmental management system is the monitoring of environmental impacts and environmental performance. We record and monitor the necessary parameters with the aid of a worldwide environmental information system, the Siemens Environmental and Technical Safety Information System (SESIS).

At Siemens, our obligation to report on environmental aspects is based on the relevance of the information. This relevance is defined according to resource consumption, emissions, and waste volume. When the first threshold is exceeded, a location is required to report data to SESIS. If it exceeds another, higher

102 Further information

83 Employees Suppliers

90 Corporate citizenship

PwC Independent Assurance Report

<sup>80</sup> Occupational health and safety management

threshold, it must additionally introduce an ISO 14001-compliant environmental management system.

Using this process, we monitor all locations in SESIS that are significant in terms of environmental aspects, as well as approximately 85 percent of Siemens' total emissions and re-

source consumption. Coverage is even The threshold values are higher relative to individual parameters; in greenhouse gas reporting, for instance, about 95 percent of our indirect and di- environmentalrect emissions are reported in SESIS. For

available on the Internet at. www.siemens.com/sr/

protection

greenhouse gas reporting, which is based on the Greenhouse Gas Protocol, we extrapolate this upwards to 100 percent and relate it to the company's continuing operations. This means that emissions from sold and closed locations are subtracted from the entire timeline and emissions from new locations are also estimated and added for past years. In addition to SESIS, data from the Central Travel Management Department is also used for greenhouse gas reporting.

In fiscal 2010, we received 372 environmental reports from company locations in 45 countries via SESIS. The basis for our reporting again changed significantly in comparison to the previous year: 32 new locations were integrated and 12 were removed due to portfolio changes. For instance, acquired locations or those that have grown and now exceed the reporting thresholds were added.

#### **Environmental management systems**

Introducing environmental management systems is a voluntary matter. This is done when Siemens locations exceed specific threshold limits in resource consumption, waste volume or emissions. At present, 81 percent of our locations required to have an environmental management system have such a certified ISO 14001-compliant system, compared to 74 percent in fiscal 2009. Details about the Siemens regulations for environmental management are available at:

www.siemens.com/sr/environmental-management

#### Locations with environmental management systems

	FY 2010	FY 2009	FY 2008	FY 2007
ISO 14001	243	209	182	213
Of those, additionally EMAS-certified <sup>1</sup>	8	8	6	7
Self-certified <sup>2</sup>	31	11	12	6

EMAS: Environmental Management and Audit Scheme of the EU. The number of EMAS certifications was adjusted for all years. Three EMAS locations submit one 1 joint SEIS report; they were counted as a single location in the past but are now counted individually. Locations are permitted to certify their environmental management systems internally to ISO 14001, provided they follow defined, in-house quality standards.

Figures collected in SESIS, not extrapolated to 100 percent coverage.

Improvement in environmental performance electrical energy (in percent, base year 2006)



Environmental performance: portfolio-adjusted, based on aggregated plant revenue Electricity (cumulative) Target (cumulative)

#### Energy consumption

The effects of increased business activity in some Divisions and the inclusion of new locations in the reporting are reflected overall in both direct and indirect energy consumption (as is also seen in other environmental figures). Another cause for the increase in natural gas consumption is the increased use of heating energy in Germany due to last year's severe winter.

The performance measure of environmental performance (energy consumption divided by plant revenue) clearly shows that more energy was consumed at our production locations (only these are evaluated here) in fiscal 2010. This is a consequence of the business recovery in some Divisions. Nonetheless, in primary energy and district heating we are well on our way to achieving our 2011 goal of a 20-percent improvement in environmental performance. Compared to base year 2006, our efficiency increase for electricity totaled 11 percent overall in 2010, 5 percent below target for the fiscal year. This will make

- Innovation 62
- Customers and portfolio 65 68 Compliance
- 71 Environmental protection
- Product responsibility
#### Direct energy consumption (in gigajoules)<sup>1</sup>

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Discrepancies in totals are the result of rounding

Figures collected in SESIS, not extrapolated to 100 percent coverage.

Indirect energy consumption (in gigajoules)<sup>1</sup>

	FY 2010	FY 2009	FY 2008	FY 2007
Power	12,188,000	11,705,000	12,400,000	14,700,000
District heating	2,409,000	2,405,000	2,700,000	2,300,000
Total	14,598,000	14,110,000	15,100,000	17,000,000

1 Discrepancies in totals are the result of rounding.

Figures collected in SESIS, not extrapolated to 100 percent coverage.

#### Improvement in environmental performance primary energy and district heating (in percent, base year 2006)



Primary energy and district heating (cumulative) Target (cumulative)

it very difficult to reach our efficiency goal of 20 percent by the end of fiscal 2011. Nevertheless, we will continue pushing our energy efficiency program regardless of the fact that the target for 2011 has been made unexpectedly more difficult due to economic developments in the past two years. The base load of energy consumption by buildings is, after all, largely independent of economic developments.

97 Indices

#### Greenhouse gas emissions (in equivalent tons of CO<sub>2</sub>)<sup>1</sup> (calculated on the model of the GHG Protocol)<sup>2</sup>

	FY 2010	FY 2009	FY 2008	FY 2007
Scope 1 <sup>3</sup>	1,387,000	1,527,000	1,475,000	1,506,000
Scope 2 <sup>3</sup>	1,841,000	1,931,000	1,998,000	2,157,000
Scope 3 (travel)	431,000	413,000	454,000	500,000
Total	3,660,000	3,871,000	3,927,000	4,162,000

1

Discrepancies in totals are the result of rounding. The timeline is based on continuing operations and is adjusted annually. All figures are extrapolated to 100 percent coverage. Direct greenhouse gas emissions (Scope 1) are from sources in the company's possession or under its control. Indirect greenhouse gas emissions (Scope 2) refer to consumption of purchased electrical energy and district heating. 3

Distribution of greenhouse gas emissions (percent)
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	FY 2010	FY 2009	FY 2008	FY 2007
Power and district heating	50	50	51	52
Natural gas, fuel oil, other fuels	29	28	26	25
SF <sub>6</sub>	7	10	10	10
CO <sub>2</sub> -techn.; HFC; PFC; CH <sub>4</sub> ; N <sub>2</sub> O	2	2	1	1
Rental cars	12	11	12	12

The timeline is based on continuing operations and is adjusted annually. All figures are extrapolated to 100 percent coverage



#### Improvement in environmental performance -CO2 emissions, power (in percent, base year 2006)

#### Greenhouse gas reporting

Siemens reports its greenhouse gas emissions - Scope 1, Scope 2, and Scope 3 (travel) - based on the guidelines of the Greenhouse Gas Protocol published by the World Resource Institute (WRI) in cooperation with the World Business Council for Sustainable Development (WBCSD). In fiscal 2010, we were

102 Further information

83 Employees 87

Suppliers 90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

also involved in developing and testing the new Corporate Scope 3 Standard for the GHG Protocol Initiative. We are using the results to further improve our greenhouse gas reporting.

Total greenhouse gas emissions decreased during fiscal 2010 by 5 percent over the previous year. This brings Siemens' total greenhouse gas emissions down by about 12 percent in absolute terms since 2007.

The decline in indirect emissions is based on more favorable emissions factors for district heating in some locations. Direct emissions resulting from the use of sulfur hexafluoride and the combustion of fuel oil and liquefied gas likewise declined. For example, less sulfur hexafluoride was used in switchgear in fiscal 2010.

There was a 4-percent increase in emissions caused by travel, due to increased air travel by our employees.

We moved a good step closer to our goal of improving environmental performance in  $CO_2$  emissions from power consumption by 20 percent, by showing an 18 percent improvement in fiscal 2010. Even though our power consumption has risen, emissions were reduced, thanks to a better average  $CO_2$  factor. Although weather-related heating needs are an unpredictable factor, we are confident we will achieve the final 2 percent during the current fiscal year with, among other measures, our energy efficiency projects.

#### **EU emissions trading**

Siemens operates two facilities in Germany covered by the European emissions trading system: a glass foundry for lamp production and a heating plant. Together they account for 1.2 percent of Siemens' direct and indirect greenhouse gas emissions.

#### Atmospheric pollutant emissions

Aside from climate protection, other industrial emissions are environmentally relevant as well. Volatile organic compounds (VOC), for example, are important because they contribute to the formation of ozone close to the earth's surface. They are one of the causes of so-called summer smog. Siemens uses such organic compounds as solvents in paints and adhesives, in impregnation processes and for surface cleaning.

#### Additional atmospheric emissions (in tons)

	FY 2010	FY 2009	FY 2008	FY 2007
Ozone-depleting substances in tons	1,100	900	1,400	1,700
of R11 equivalent <sup>2</sup>	0.3	0.2	0.2	0.3

 VOC (Volatile Organic Compounds) emissions were adjusted by – 400 tons in 2008 and 100 tons in 2009.
 R11 equivalence measures ozone depletion potential.

Figures collected in SESIS, not extrapolated to 100 percent coverage

The use of ozone-depleting substances (referring to the stratospheric ozone layer in this case) has been sharply curtailed by the Montreal Protocol, an international convention on the protection of the ozone layer, and by country-specific legislative initiatives around the world. Consequently, Siemens has also considerably reduced its use of these substances; today they are used for only a few refrigerants that cannot yet be replaced with more environmentally friendly substances.

Nitrogen oxides are calculated assuming typical combustion conditions in the relevant thermal processes: For fiscal 2010 this results in a quantity of 324 tons.

#### Waste

The environmental relevance of waste depends on how potentially hazardous it is and how it is disposed. We therefore differentiate between hazardous and non-hazardous waste and between recyclable waste and waste for disposal. We further identify construction waste separately since the proportion largely depends on the specific building or demolition operation and is not influenced by production.

Total waste volume (without construction waste) rose 6 percent over the previous year. Two percent of this was due to new locations. This increase consists primarily of waste with the lowest environmental impact (non-hazardous, recyclable waste) and can be explained by the strong growth in some Divisions, among other factors.

The overall recycling rate compared to fiscal 2009 stayed virtually constant at 80 percent.

Standardizing production location data with plant revenue shows that waste intensity increased by 2 percent. To achieve the waste target of 15 percent, reduction measures must be implemented more rigorously at company locations.

57 Strategy

- 62 Innovation
- 65 Customers and portfolio68 Compliance
- 71 Environmental protection
- 77 Product responsibility

#### | Waste (in tons)

	FY 2010	FY 2009	FY 2008	FY 2007
Non-hazardous waste	359,000	339,000	370,000	370,000
Hazardous waste	53,000	49,000	45,000	39,000
Construction waste	30,000	27,000	10,000	25,000
Total	442,000	415,000	425,000	434,000

Figures collected in SESIS, not extrapolated to 100 percent coverage.

Recycling (in percent, including construction waste)

	FY 2010	FY 2009	FY 2008	FY 2007
Share of recycling		04	0.2	
in total waste	80	81	83	78

Figures collected in SESIS, not extrapolated to 100 percent coverage.

Improvement in environmental performance – waste (excluding construction waste) (in percent, base year 2006)



Waste (cumulative) Target (cumulative)

#### Water and wastewater

In fiscal 2010, we used around 15 million cubic meters of raw water worldwide. This represents an increase in water consumption of around 5 percent over the previous year, a development due in large part to new company locations.

Part of the company's water consumption is due to the dynamic economic activity that resulted last year in the growth of some Divisions such as OSRAM, one of our largest water consumers. This is why environmental performance stayed just 1 percent below the previous year's level. We are still well on

#### Water consumption (in cubic meters)<sup>1</sup>

	FY 2010	FY 2009	FY 2008	FY 2007
Water	15 000 000	14 100 000	15 000 000	16 700 000

 Does not include 12.6 million cubic meters of cooling water drawn from and returned chemically unchanged but warmed to groundwater and surface water resources.

Figures collected in SESIS, not extrapolated to 100 percent coverage.

#### Wastewater (in cubic meters)<sup>1,2</sup>

	FY 2010	FY 2009	FY 2008	FY 2007
Cooling water	2,100,000	1,700,000	2,300,000	3,300,000
Wastewater from employee facilities	6,600,000	6,300,000	6,100,000	6,800,000
Wastewater from manufacturing processes (total)	4,200,000	4,100,000	4,300,000	4,400,000
Other (incl. losses)	2,100,000	1,700,000	1,600,000	2,300,000
Total	14,900,000	13,800,000	14,300,000	16,900,000

 Does not include 12.6 million cubic meters of cooling water drawn from and returned chemically unchanged but warmed to groundwater and surface water resources

2 Discrepancies in totals are the result of rounding. Figures collected in SESIS, not extrapolated to 100 percent coverage.

### Improvement in environmental performance – water (in percent, base year 2006)



our way to achieving our environmental target. The availability of water varies considerably worldwide. Therefore, we systematically determine whether locations are in areas with scarce water supplies. In the future, we will intensify water management programs for these locations, if necessary.

102 Further information

83 Employees 87 Suppliers

90 Corporate citizenship

<sup>97</sup> Indices

#### **Environment-related incidents and penalties**

We registered eight incidents in fiscal 2010. Four of these involved releases into bodies of water or sewer networks, one involved oil, and three were related to atmospheric emissions. These incidents were reported externally, as appropriate, through our management systems, and in each case we took remedial action and analyzed the events in order to avoid a recurrence.

SESIS is used not only to report information on resource consumption and emissions, but also penalties. There were no significant penalties in fiscal 2010.

#### Nature and wildlife conservation

Nature and wildlife conservation is an integral part of environmental protection at Siemens. It is integrated into our environmental management systems at locations and in projects. More information is available on the Internet under "Significant environmental aspects" and "Facts and figures 2010." www.siemens.com/sr/environmental-protection

Goal	Target date	Status
Improve the following environmental performance: Energy: > Primary energy and district heating: 20 percent > Power: 20 percent	9/2011 (base year 2006)	Efficiency increase compared to base year 2006: In fiscal 2010, our primary energy and district heat performance improved by 23 percent and our energy performance by 11 percent.
Carbon emissions: 20 percent	9/2011 (base year 2006)	Our carbon performance improved by 18 percent.
Water: 20 percent	9/2011 (base year 2006)	We improved our water performance by 28 percent.
Waste: 15 percent	9/2011 (base year 2006)	Our waste performance improved by 10 percent.
Deploy environmental management systems at all locations where required.	9/2011	Environmental management systems were in place at 81 percent of all locations requiring a system.

Environmental protection goals

76

- 62 Innovation
- 65 Customers and portfolio 68 Compliance
- 71 Environmental protection77 Product responsibility

### Product responsibility

Product responsibility at Siemens is about much more than just the environmental aspects of manufacturing over 100,000 different products and solutions. We believe it is our responsibility to include the entire lifecycle of a product in our considerations. In this manner, we assume sustainable responsibility for our products.

As we continually improve the energy and resource efficiency of our products and solutions, we rely on clearly defined requirements that promote environmentally compatible design. These requirements encompass every phase in the product lifecycle, from the initial idea through to end-of-life, and include detailed rules on everything from the avoidance of specific substances to the recovery of product materials.

Our globally binding guidelines ensure the uniform implementation of company regulations for product-based environmental protection by requiring that we:

- > Adhere to legal and in-house requirements,
- > Identify and minimize possible product lifecycle impacts on human health and the environment,
- > Sustain, or still better, improve people's living conditions and environment by addressing environmental, economic and social factors,
- > Drive the development of new technologies and products for environmental protection, and
- > Focus on environmental compatibility to help improve market opportunities for Siemens products and boost our credibility in the eyes of customers and the general public.

97 Indices

#### SN 36350, OUR IN-HOUSE STANDARD FOR ENVIRON-MENTALLY COMPATIBLE PRODUCTS AND SYSTEMS

SN 36350 is a binding in-house standard that specifies key requirements binding for all Siemens Divisions. It contains quidelines for designing products and systems that will per-

form well environmentally over their en- Additional information tire lifecycle, and encompasses both in- about SN 36350 ternal requirements – such as restrictions www.siemens.com/sr/ on the use of certain types of materials as well as statutory requirements like the

is available at: SN36350

EU's Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Moreover, SN 36350 is updated continuously to cover new focal themes such as resource efficiency and nanomaterials. The standard is central to our product lifecycle management processes and to our internal project management process (PM@Siemens). It defines the environmental factors that must be addressed and controlled at given milestones.

#### **PRODUCT SAFETY**

Product safety has utmost priority throughout Siemens' product portfolio. Our goal is to design and manufacture products - material and immaterial - that are safe in every regard. Our system to ensure product safety:

- > Avoids dangers and minimizes risks to users and third parties,
- > Provides binding rules for all our own and any third-party products that we market,
- > Underscores the emphasis we place on product safety along our entire value chain, and
- > Safeguards our sustainable success, since any incident caused by an unsafe product can seriously damage the entire company's reputation.

Our Principles of Product Safety and the related guidelines define the framework of methods and measures used at Siemens and are binding for all Siemens units concerned with product safety.

102 Further information

90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

<sup>83</sup> Employees Suppliers

	FY 2010				FY 2009				FY 2008				
Full-scale LCAs	75				49				41	1			
Screening LCAs	96				77				68				
Environmental product declarations (EPD)	90			Γ	81				44				

| Lifecycle assessments and environmental product declarations (percentage coverage of revenue)

Reference base: Divisions that prepare full-scale LCAs, screening LCAs or EPDs for selected products and systems. We don't track coverage on a product basis within Divisions; here, figures are based on each Division's total revenue

The top management of each Siemens business worldwide is responsible for product safety. At Siemens AG, for example, Managing Board member Dr. Hermann Requardt holds overall responsibility for product safety, while the heads of Divisions, Cross-Sector Businesses, Cross-Sector Services and Corporate Units are in charge of implementing and overseeing all mandatory product safety measures.

#### LIFECYCLE ASSESSMENTS

With many of our products and solutions, we gauge their environmental footprint by means of full-scale lifecycle assessments (LCA), based on the international ISO 14040 and 14044

standards. Since full-scale LCAs can be complex and costly, we employ, where suitable, screening LCAs, such as cumulative energy demand (CED) analyses. We environmental-portfolio also use a number of common LCA tools

You can read more about our Environmental Portfolio at: www.siemens.com/sr/

to assess a product or solution's specific ecological rucksack. We believe it's essential to have a clear picture of a product or solution's complete lifecycle, because only then can we identify and avoid potential negative environmental impacts during its use and disposal phases. In regard to the many products and solutions in Siemens' portfolio, it's evident that the use phase is the most environmentally relevant, so we emphasize the resource and energy efficiency of the products our customers use. Those products and solutions that perform particularly well are included in our Environmental Portfolio.

Fiscal 2010 was the first year in which every Division in all three Siemens Sectors carried out lifecycle assessments. Our Divisions conduct either full-scale LCAs or screening LCAs to assess their products and solutions' environmental impacts, and they're doing so more frequently, as evidenced by the increase in our key performance indicators for full-scale and screening LCAs for the year.

The Industry Solutions Division uses the results of lifecycle assessments in its Eco-Care-Matrix, a tool that enables a graphic comparison of environmental and customer benefits of prod-

ucts and systems. The Eco-Care-Matrix Additional information presents the environmental benefit on the Eco-Care-Matrix is (based on LCA analysis) in terms of the www.siemens.com/sr/ product or system's key impact category eco-care-matrix or carbon footprint; the customer benefit

available at:

is generally expressed in monetary terms. The tool clearly illustrates the relationship between both aspects and shows customers at a glance how the product or system in question compares against a reference base and what they stand to gain, both environmentally and in business terms, from using it.

Our experiences with screening LCAs have been incorporated into the draft of the Corporate Scope 3 greenhouse gas reporting guidelines prepared by the GHG Protocol Initiative of the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). Our participation in this pilot project convinced us that the standard will lead to greater transparency on carbon intensity within the supply chain. Yet we also noticed that the methods employed to assess usephase greenhouse emissions still show a number of weaknesses and that the necessary transparency hasn't yet been fully achieved.

- Innovation 62
- Customers and portfolio 65 68 Compliance
- 71 Environmental protection
- Product responsibility

#### ENVIRONMENTAL PRODUCT DECLARATIONS

We publish environmental product declarations (EPDs) to clearly and transparently inform our customers about the environmental performance of Siemens products and solutions. Based

on environmental data collected in prior For more on our full-scale or screening LCAs, the EPDs environmental product declarations, see: highlight key potential environmental www.siemens.com/sr/EPD savings - through resource and / or energy

efficiency, for example – and give customers a comprehensive picture of the environmental benefits of the product or solution, including its overall footprint. We also provide customers with additional documents explaining how to get the best environmental performance out of our products and systems.

In fiscal 2010, we again published significantly more environmental product declarations than in the prior year, and they now cover 90 percent of our reference base. All our EPDs are

prepared in close cooperation with the respective communications departments to ensure that the information they contain is not only factually correct but also meets company communications standards.

#### MARKETING AND COMMUNICATIONS

To safeguard our credibility, we have a company-wide communication policy designed to meet our obligations toward stakeholders by delivering consistent and balanced information. To support this policy, we publish in-house guidelines on advertising and public relations, crisis communications, marketing and sponsorship on the corporate intranet. We also require all company information and their distribution to adhere to local statutory regulations as well as generally applicable ethical and cultural standards.

102 Further information

www.siemens.com/sr/product-responsibility

#### Product responsibility goals

Goal	Target date	Status
Increase the number of business areas voluntarily discon- tinuing the use, in electronic products, of materials re- stricted by the RoHS Directive even though the products are not affected by RoHS regulations. <sup>1</sup>	ongoing	Although the RoHS Directive generally doesn't apply to our products, the use of lead is a company-wide focal issue for us. Compared to the prior year, the number of products produced without using lead was again higher.
Increase the number of Divisions with environmental product declarations based on our SN 36350-7 standard. EPD also from the Divisions Drive Technologies, Industry Solutions, Power Transmission, Power Distribution, Fossil Power Generation and Renewable Energy.	by 9/2010	We reached our goal. We again succeeded in sharply increasing the number of Divisions with environmental product declarations by the end of fiscal 2010.
Completely integrate materials restrictions into agree- ments with suppliers.	by 9/2010	Goal achieved.
New goals:		
Widen our product environmental evaluation method to incorporate customer benefits, and implement in pilot projects.	9/2012	
Build up online training on basic product-related environ- mental protection.	9/2012	

A Business Unit that manufactures its own electronics is considered converted when at least 90 percent of its products comply with this voluntary commitment. One-hundred-percent conversion is not always possible since some products cannot be changed for technical or economic reasons, such as component availability requirements, long-term delivery obligations or customer requirements

97 Indices

83 Employees

87 Suppliers 90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

### Occupational health and safety management

Occupational health and safety management are key components of our corporate culture and of prime importance in a strategy geared to sustainability. We ensure management involvement, recognize trends at an early stage and take preventive action to help ensure Siemens' success.

#### **OCCUPATIONAL SAFETY**

Our approach to occupational health and safety management is proactive, international in scope and focused on long-term development. Both are firmly embedded in our Business Conduct Guidelines, our internal control system and our Compliance Program.

Siemens' various business activities pose different risks to our employees. We counter these hazards in two ways: On the one hand, we ensure that centrally formulated, uniform standards are in place worldwide; on the other, we adapt our programs at the local level. As part of our Zero Harm Culture program, we organize intensive training sessions with managers and employees alike to raise their awareness of - and thus minimize - occupational safety risks.

If and when accidents occur, we not only investigate their causes, but view each as an opportunity to further strengthen and supplement the measures we already have in place and rule out possibilities of their reoccurrence.

When analyzing the causes of fatal accidents, we also call on the services of independent teams of experts. The causes of accidents are made known within the affected unit and, where appropriate, beyond it. This allows us to take precautions where similar machines, facilities or procedures are involved.

#### HEALTH MANAGEMENT

Health management at Siemens goes far beyond legal requirements for occupational health and safety protection by supplementing them with a dual approach for promoting health and

preventing illness. This involves not only Find out more about strengthening our employees' physical, mental and social well-being and their www.siemens.com/sr/ health-management ability to perform, but also promoting

health management at:

their personal health resources. We offer a wide range of activities such as encouraging exercise, a healthy diet, good mental health, a healthy working environment and medical support. We know that making good health an integral part of every employee's working life requires a worldwide framework of uniform structures, processes, responsibilities and resources, and are currently developing such a framework.

#### **OCCUPATIONAL SAFETY FIGURES**

For the first time, our figures in fiscal 2010 offer a virtually complete overview of the accidents that occurred in all our at: organizational units worldwide<sup>1</sup> and we www.siemens.com/sr/ no longer publish separate figures for

A more detailed report on occupational safety in Germany can be found

occupational-safety

Siemens AG in Germany. National definitions are taken into account when recording lost-time injuries (LTI)<sup>2</sup> and those cases considered to be LTI in accordance with these definitions are recorded and evaluated.

Our Industry, Energy and Healthcare Sectors differ both in terms of their products and activities, and their attendant hazards and the business-related risks. This is reflected in differences in their accident rates (see table "Accident figures worldwide").

Regrettably, the number of fatal accidents (see table "Fatal accidents") increased in the year under review. It is important to remember, however, that we report all fatal accidents that are directly connected with work or that occur while commuting to or from work. This goes beyond what we are required to report on the basis of national laws and is a measure of the responsi.

Corresponds to coverage of 88 percent of the employees.
 LTI are accidents that result in at least one day of time lost.

57 Strategy

- Innovation 62
- 65 Customers and portfolio 68 Compliance
- 71 Environmental protection
- Product responsibility

#### Accidents worldwide

	FY 2010 <sup>1</sup>	FY 2009 <sup>2</sup>	FY 2008 <sup>2</sup>
LTIFR <sup>3</sup>			
Industry Sector	0.69	0.85	0.45
Industry contractors	0.65	1.50	n.a.4
Energy Sector	0.48	0.55	0.67
Energy contractors	0.33	0.40	0.24
Healthcare Sector	0.22	0.20	0.15
Healthcare contractors	0	0	n.a.4
Metacluster⁵			
Europe, C.I.S., <sup>6</sup> Africa, Middle East	0.58		
Americas	0.47		
Asia, Australia	0.10		
Siemens worldwide	0.50	0.60	0.40
		· · · · · · · · · · · · · · · · · · ·	

88 percent of the employees were covered in fiscal 2010.

There was no full coverage in fiscal 2008 and 2009. LTIFR – Lost-time injury frequency rate: number of lost time injuries (LTI) x 100,000/ work hours performed. In the Siemens Sustainability Report 2009, calculations were still based on 200,000 work hours performed. These figures were adjusted to reflect 3 the methods used in fiscal 2010. Not recorded in fiscal 2008.

First worldwide figures at metacluster level in fiscal 2010. The metaclusters comprise

all Regional Companies and the companies assigned to them Commonwealth of Independent States

bility we feel for our employees and contractors. To help improve the situation with commuting accidents, we plan to step up our road safety activities by developing a global safety program and by integrating our contractors even more closely in our safety programs.

The total number of recorded cases of occupational illness relative to the number of employees has remained at a consistently low level for many years. The main problem areas include noise-related illnesses and diseases caused by exposure to asbestos. The corresponding indicator (occupational illness frequency rate, OIFR<sup>3</sup>) was 0.39 in the year under review.

#### HEALTH MANAGEMENT FIGURES

The purpose of health management activities is to enhance the health, performance and motivation of all Siemens employees, a task that demands the creation of corresponding responsibilities, structures and resources worldwide.

3 The occupational illness frequency rate is calculated as the number of registered cases of occupational illness in the fiscal year per 1,000,000 work hours performed.

97 Indices

#### Fatal accidents

	FY 2010	FY 20091	FY 2008
Siemens – work accidents	2	3	1
Siemens – commuting accidents	6	1	0
Contractors – work accidents	8	3	4
Contractors – commuting accidents	2	0	0

The figures for fiscal 2009 were revised upward from 6 to 7 following a later check 1

#### Breakdown of fatal accidents

	FY 2010	FY 2009	FY 2008
Siemens (by Sector)			
Industry	0	0	0
Energy	3	1	1
Healthcare	0	0	0
Contractors			
Industry	2	0	1
Energy	0	1	1
Healthcare	0	0	0
Regional Companies, other			
Own employees	5	3 <sup>1</sup>	0
Contractors	8	2	2

Figure includes employees of the Siemens Regional Companies in Iran and the U.K. working on building sites and facilities of the Energy Sector

In order to gain an overview of the current situation in individual countries, in July 2010 we carried out a survey of 69 countries in which Siemens has Regional Companies. Via an online questionnaire, 65 out of 69 Country Managers provided information on the structures and responsibilities in place at their respective locations. Those surveyed were also asked about the practical measures taken with respect to medical support, sports and health-promoting activities, mental health, healthy eating and overarching health programs.

The study revealed that the majority of the countries surveyed already have varied programs of health-related activities for employees in place. Nearly all the Regional Companies surveyed, for instance, offer preventive healthcare initiatives, in-

102 Further information

83 Employees 87 Suppliers

90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

cluding such measures as screenings and vaccinations. 54 Regional Companies offer nutrition-related programs such as company restaurants, seminars and nutrition campaigns, while 46 have set up sport and health programs covering individual sports, exercise and relaxation. Psychosocial initiatives such as counseling and mental-health workshops are already being offered in about half of the Regional Companies.

Since smoking is not only a major risk factor in cardiovascular disease, but often poses a safety risk as well, smoking has been banned at many Siemens locations. Smoke-free working environments are mandatory at three-quarters of the Regional Companies surveyed.

#### COMMENTS ON GOALS

The program announced in last year's Sustainability Report and its goals are an integral part of the new joint corporate EHS program that the Managing Board of Siemens AG approved in the first quarter of fiscal 2011. They are therefore listed as new goals.

www.siemens.com/sr/safety www.siemens.com/sr/health-management

#### | Occupational health and safety management goals

Goal	Target date	Status
Examine our risk management system in order to identify further potential for enhancing occupational health and safety management.	4/2010	Goal achieved. Occupational safety is a mandatory part of the so-called risk and internal control (RIC) process. Each year, the heads of our Divisions, Business Units, Regional Companies and Affiliated Companies affirm to Siemens management that their respective entities conform to the requirements defined in the EHS principles. The potential identified is implemented as part of the Zero Harm project.
New goals		
Introduce an occupational health and safety manage- ment system according to OHSAS 18001 or a comparable standard in all company units.	9/2012	
Perform and document hazard evaluations at all work- stations where this is not already required by national law.	9/2012	
Examine all materials with especially hazardous properties (e.g. carcinogens) that are used in production, mainte- nance and service, and determine whether there are less hazardous substances or alternative methods that would eliminate those materials.	9/2012	
Beyond statutory requirements, catalog and document tools, equipment, production facilities and systems that still contain asbestos. Further assess the need for substitution, keep employees' exposure to this substance to an absolute minimum and ensure that threshold limits are met. <sup>1</sup>	9/2012	
Develop a company-wide standard for preventive travel medicine and offer the Siemens Traveler Health Check to 80 percent of all Siemens business travelers.	9/2012	
Develop a health management system as well as a so-called health management portfolio that is valid worldwide and contains measures for promoting health.	9/2012	

1 Asbestos was already eliminated some time ago. International "Basic Principles for Protection Against Exposure to Asbestos" took effect in 2002 and are continuously updated.

- 62 Innovation
- 65 Customers and portfolio68 Compliance
- 71 Environmental protection
- 77 Product responsibility

#### Siemens employees (on September 30)

	FY 2010	FY 2009	FY 2008
Siemens	405,100	404,800	427,200
Europe, C.I.S., <sup>1</sup> Africa, Middle East (percent of employees)	59	60	59
Americas (percent of employees)	23	23	23
Asia, Australia (percent of employees)	18	17	18

1 Commonwealth of Independent States

Employees in management positions (on September 30)<sup>1</sup>

	FY 2010	FY 2009	FY 2008
Siemens	50,800	49,100	49,200
Percentage of women (percent of			
employees in management positions)	13.7	13.6	13.4

"Employees in management positions" includes all managers with disciplinary responsibility, plus project managers.

Qualified, creative and dedicated employees are one of our greatest strengths. We enable them to develop their full, diverse potential by consistently encouraging them and providing further training. One Siemens, our target system for sustainably enhancing the company's value, provides the framework for these efforts.

One Siemens is based on our aspiration to constantly improve, compared with both the market and the competition, and thus permanently enhance company value. Siemens' unique

strength lies in the creative potential and You can find detailed dedication of our more than 400,000 employees. It is decisive to retain them as at: long as possible, provide a good working www.siemens.com/ environment as well as active and inspir-

information about the One Siemens target system one-siemens

97 Indices

ing management, and promote personal and professional skills throughout an employee's career. In addition, our employee share program enables our staff and managers to participate in Siemens' long-term results.

#### Women employees (percent of employees)

	FY 2010	FY 2009	FY 2008
Siemens	25	25	26
Europe, C.I.S., <sup>1</sup> Africa, Middle East	23	23	24
Americas	26	26	26
Asia, Australia	33	34	32

1 Commonwealth of Independent States

1 4	ge distribution	in	FY	2010	(percent	of	employees
-----	-----------------	----	----	------	----------	----	-----------

	< 35	35 – 44	45 – 54	> 54
Siemens	35	28	26	11
Europe, C.I.S., <sup>1</sup> Africa, Middle East	28	30	30	12
Americas	29	27	28	16
Asia, Australia	64	25	9	2

1 Commonwealth of Independent States

#### TRAINING AND LIFELONG LEARNING AS A SUSTAINABLE INVESTMENT

We offer young people attractive opportunities for training and studies - thus helping secure young talents straight out of school.

Our demanding training and continuing education programs offer our employees opportunities to steadily develop their skills and know-how. Our Learning Intranet portal alone offers more than 1,000 options for business-oriented learning. In fiscal 2010, we invested around €225 million in continuing education measures, or roughly €560 per employee. In addition to offering a variety of seminars, we give gualified skilled employees and managers the possibility of completing academic degrees - such as a Bachelor in Engineering or Master of Business Administration in Growth - while they work. These courses are based on a combination of seminars and e-learning programs especially tailored for working professionals.

We identify talented people and offer them challenging work. We use uniform criteria worldwide to coordinate employees' skills and potential with the requirements of their new positions. Siemens Leadership Excellence, a continuing education

102 Further information

83 Employees 87 Suppliers

90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

program established for managers in 2005, and the Siemens Leadership Framework, with its clear criteria for assessing manager potential, help individuals develop further and maintain a shared focus.

Today, highly qualified skilled workers and managers selectively choose companies that can offer them more than merely an interesting job. To ensure that we continue to be an attractive employer, we give high priority to providing an HR policy that responds flexibly to the changing career phases of employees and their diverse needs.

#### You can find out more about job-family compatibility at:

www.siemens.com/sr/ work-life-integration For additional information about work time models, personnel costs and our commitment to employee rights, see: www.siemens.com/sr/ employees

#### ENCOURAGING AND LEVERAGING DIVERSITY

Worldwide presence is one of our trademarks and our great advantage. The vast range of our employees' capabilities, experience and qualifications gives us substantial competitive

advantages in our global markets. Women and men of different backgrounds and Initiative can be found at: origins reflect our broad customer base, <sup>WWW.SIE</sup> diversity enrich our fund of ideas, and reinforce

www.siemens.com/

Further information about our training programs for

the disabled can be found

education

our innovative drive. Knowing this, we specifically encourage diversity within the company with our Diversity Initiative. We carefully develop systems to reflect the company's diversity at all levels. These efforts include the two new global networks established to identify diversity topics throughout the company: the network of approximately 150 Siemens Diversity Ambassadors, and GLOW, the Global Leadership Organization of Women. Members of these networks are available to employees worldwide, whether to lend a listening ear, provide mentoring or offer suggestions.

People with disabilities are fully integrated into the working life at Siemens. We promote integration at all levels of at: the company and it goes without saying www.siemens.com/sr/ that we also hire employees with disabil-

ities and offer them solid training opportunities.

#### FACTS AND FIGURES EMPLOYEES **Hirings and departures**

#### Siemens employee hires

	FY 2010	FY 2009	FY 2008
Siemens	60,800	51,700	74,600
Europe, C.I.S.,¹ Africa, Middle East	23,300	19,500	35,200
Americas	14,800	16,900	19,100
Asia, Australia	22,700	15,300	20,300

1 Commonwealth of Independent States

#### Women hired (in percent)

	FY 2010	FY 2009	FY 2008
Siemens	33	34	31
Europe, C.I.S., <sup>1</sup> Africa, Middle East	28	28	28
Americas	26	26	26
Asia, Australia	43	51	40

1 Commonwealth of Independent States

#### Siemens employee departures

	FY 2010	FY 2009	FY 2008
Departures	51,400	70,500	58,000

#### Employee fluctuation rate (in percent)<sup>1</sup>

	FY 2010	FY 2009	FY 2008
Employee decision	5.1	6.1	6.9
Other reasons for departure	7.8	11.3	6.7
Total	12.9	17.4	13.6

Employee fluctuation rate is defined as the ratio of voluntary and involuntary 1 departures to the total number of employees for a fiscal year

#### Retiring within the next five years (percent of employees)<sup>1</sup>

	FY 2010	FY 2009	FY 2008
Retiring	11	11	9

Based on the Siemens worldwide average retirement age of 60.

- Innovation 62
- Customers and portfolio 65 68 Compliance
- 71 Environmental protection
- Product responsibility

#### Working hours and working arrangements

#### Average official weekly working hours<sup>1</sup>

	FY 2010	FY 2009	FY 2008
Siemens	39.2	39.1	39.3
Europe, C.I.S., <sup>2</sup> Africa, Middle East	37.7	37.7	37.5
Americas	41.2	41.1	41.0
Asia, Australia	41.5	41.4	43.0

Contractually agreed weekly working hours at the end of the fiscal year. Commonwealth of Independent Sta

#### Use of working hour programs at Siemens

	FY 2010	FY 2009	FY 2008
Part-time	24,200	24,600	23,300
Employees on leaves of absence	6,600	6,500	6,200

#### **Continuing education**

Expenditure on continuing education

	FY 2010	FY 2009	FY 2008
Total (in millions of euros) <sup>1</sup>	225	228	249
Per employee (in euros) <sup>1,2</sup>	560	562	582

Figures are a mathematical average. Travel expenses not included.

#### Average number of training hours by employee category (hours)1

	FY 2010	FY 2009	FY 2008
Corporate management (approx. 35/year)	25	25	50
Top management			
New appointees (approx. 45/year) <sup>2</sup>	56	54	60
Alumni (approx. 40/year)	25	25	25
New general management appointees (approx. 200/year)	94	109	100
New higher management appointees (approx. 300/year)	64	109	110
New management employees (approx. 400/year)	66	95	100

Based on Siemens Leadership Excellence program participants. Only new hires were reported in fiscal 2008 and 2009. New appointees also include 1 2 new hires

97 Indices

#### Personnel expenses

Personnel expenses (in millions of euros)

	FY 2010	FY 2009	FY 2008
Wages and salaries	21,572	20,320	21,486
Social security and other benefits	3,328	3,353	3,256
Pension expenses	778	996	904
Total	25,678	24,669	25,646

#### FIRST GLOBAL EMPLOYEE SURVEY

In fiscal 2010, Corporate Human Resources joined with Corporate Legal and Compliance to hold the company's first global employee survey. Conducted in 40 languages, the survey guestioned roughly 275,000 employees worldwide about their personal opinions on such themes as compliance, commitment and transparency.

The results show that a large majority of the workforce identifies with the company's shared values. But they also show that there's still room for improvement in some areas.

By establishing a culture that clearly welcomes feedback, we want to steadily and permanently improve work procedures and results, enhance employee motivation, and further strengthen identification with our company.

#### COMMENTS ON FACTS AND FIGURES **Employee development**

New hires increased again in fiscal 2010. The number of hires grew nearly 18 percent from the prior year, when we saw a decrease of 31 percent. At the same time, departures decreased about 27 percent from the previous year, when there had been a 22 percent increase.<sup>1</sup> The percentage of all terminations at the company's initiative was 20 percent for the year, compared to 25 percent the year before. All other variations result from miscellaneous changes in the scope of consolidation and other changes.

A different database was used for employee hires and departures than for the reported workforce total. An exact coordination of the two sources is currently not possible.

102 Further information

83 Employees 87 Suppliers

90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

#### Change in age structure

Comparing employees by age group with the year before, the distribution remained virtually unchanged. As in fiscal 2009, the year's median age was again 40.

#### **Continuing education**

The average number of hours of training decreased slightly in some cases as a result of our tailoring the training offers more closely to participant needs arising from Siemens business. www.siemens.com/sr/employees

#### | Employee goals

Goal	Target date	Status
<b>Employee participation</b> Roll out the Siemens Share Matching Plan in 50 more countries.	9/2010	The company's Share Matching Plan included 48 countries by the end of fiscal 2010 and was available to around 375,000 employees (93 percent of the workforce). In fiscal 2010, 120,000 employees participated in the Plan and in other forms of share ownership.
<b>Employee recruitment</b> Implement a worldwide recruiting standard.	9/2010	In fiscal 2010, employees in our recruiting organizations throughout the world trained in the content, standards and processes of the Recruiting Deskbook developed by Corporate Human Resources jointly with the Recruiting Community, using the "training of trainers" principle. Processes have already been implemented and are a part of everyday life in focus countries like the United States, Germany and the Middle East.
Introduce and roll out the 4success recruiting platform.	9/2010	The new global IT recruiting platform <i>4success</i> has already been rolled out in 60 countries. The tool was configured on the basis of the company's worldwide recruiting standard. It supports defined recruitment processes and permits both cross-border recruiting and internal recruiting initiatives.
<b>Employee qualifications</b> Establish a Global Learning Landscape for developing skills in business learning and implement it in the relevant Regions.	9/2010	In fiscal 2010, over 2,000 participants from every Cluster took part in Siemens Core Learning programs. These programs are avail- able for seven core competencies: Sales/Account Management, Manufacturing, Research & Development, Human Resources, Project Management, General Management, and Procurement/ Supply Chain Management/Logistics. The portfolio and the world- wide training network are being further expanded.
Further expand the online Global Learning Portal for employee training and continuing education.	9/2010	The Global Learning Portal has been expanded. More than 1,000 options are now available for business-oriented learning from Global Learning Campus and international partners, Siemens Leadership Excellence, and product training courses.

New goals		
<b>Diversity</b> Develop indicators to quantify and manage employee diversity.	9/2011	The Diversity Scorecard was implemented in 2010.
<b>Employee participation</b> Establish a sustainable shareholder culture within the company. Employees worldwide should have an opportunity to participate in the Share Matching Plan.	9/2011	
Employee recruitment Expand rollout of the <i>4success</i> recruiting platform to 88 countries.	9/2011	

- 62 Innovation
- 65 Customers and portfolio
- 68 Compliance71 Environmental protection77 Product responsibility

## **Suppliers**

Our global network of suppliers is of central importance to our company. Since the value of the products and services we purchase amounts to nearly half of our revenue, our suppliers play a key role in a value chain focused on sustainability. This results in considerable challenges for our supplier management as well as in setting ourselves high standards to act with longterm responsibility.

In fiscal 2010, we sourced goods and services from around 90,000 suppliers<sup>1</sup> in 172 countries. In selecting our suppliers, Siemens not only seeks the best suppliers in terms of their competitiveness and in-

 Find out more about the Code of Conduct for Siemens Suppliers
 at:
 www.siemens.com/sr/

code-of-conduct

novative strength, but also makes stringent demands regarding their sustainability. Reflecting this, we have integrated sustainability requirements in all relevant supplier management processes in recent years and continue to refine these requirements.

Each supplier relationship is based on a commitment by our supplier to comply with the principles of the Code of Conduct for Siemens Suppliers and to promote these requirements in its own supply chain.

#### KNOW-HOW TRANSFERS AND BUILDING COMPETENCE

Our suppliers' commitment to comply with our sustainability principles is most effective when it is based on their own convictions. To foster these commitments,

Our Web-based Training
 t is available at:
 www.siemens.com/sr/
 web-based-training

97 Indices

we are relying more and more on building up their sustainability know-how and competence. As part of these efforts, we provide a free online training unit that shows it pays for all parties to strive for top-class performance regarding sustainability and that all partners in the supply chain profit from this.

 Suppliers with a valid "Dun & Bradstreet Global Ultimate" number and a purchasing volume > €10,000.



Results of Sustainability Self Assessments in fiscal 2010

Category "green" (no deviations)	512	
Category "yellow" (slight deviations)1	193	
Category "red" (suspicion of major deviations) <sup>1</sup>	248	

 Clarification of situation by responsible buyer and agreement on corrective measures within a defined timeframe (grace period) or sustainability audit by an independent auditor.

Number of Sustainability Self Assessments in the last three fiscal years

FY 2010	953						
FY 2009	262						
FY 2008	84						

In addition to our regular supplier days, we also held our first sustainability workshops for our suppliers in Shanghai, Beijing and Shenzhen, China. In response to the positive feedback, we plan to hold

sustainability-workshops

such workshops in other non-OECD countries as well (see the table "New goals" on page 89). For consistent worldwide further qualification of our employees and as a supplement to existing programs, we developed online training for "Sustainability in the supply chain" that is obligatory for all employees with purchasing responsibility.

102 Further information

83 Employees 87 Suppliers

90 Corporate citizenship

A report on the sustainability workshops for our suppliers in China is available in the Internet at: www.siemens.com/sr/

<sup>80</sup> Occupational health and safety management

#### **REGIONAL RESPONSIBILITY AS A CUSTOMER**

One aspect of our program for Global Find out more about Value Sourcing is to increase our procurement volume in emerging and developing markets. Our goal is to expand our www.siemens.com/sr/ global supplier network in order to

global value sourcing n procurement in the Internet at alobal-value-sourcina

achieve a better regional balance of sales and procurement volume. In working with suppliers in these countries, we rely on the systematic development of their competence as a sustainable value added for all those involved.

#### ENERGY EFFICIENCY PROGRAM FOR SUPPLIERS

In order to orient our entire supply chain in an ecological manner, we work closely with our suppliers to identify and implement measures for the efficient use of resources and the reduction of greenhouse gas emissions. To this end, we developed our Energy Efficiency Program for Suppliers (EEP<sub>4</sub>Suppliers) which provides access to know-how and experience from our own Environmental Program and Environmental Portfolio. In fiscal 2010, we successfully piloted EEP<sub>4</sub>Suppliers at 17 production facilities operated by major suppliers. Plans call for the first 1,000 suppliers to be integrated in the EEP<sub>4</sub>Suppliers program by the end of fiscal 2012.

#### FOLLOWING UP ON SUSTAINABILITY REQUIREMENTS

Since production conditions sometimes do not meet our desired standards, particularly in non-OECD countries, we conduct risk-based checks with the help of a system of detection

modules to determine to what extent our Find out more suppliers comply with the requirements about our system of our Code of Conduct for Siemens Sup- at: pliers. The system is based on four com- www.siemens.com/sr/ ponents: Sustainability Self Assessments,

of detection modules

detection-modules

a risk evaluation performed by the buyer, External Sustainability Audits, and Supplier Quality Audits with Sustainability Module. In the year under review, we decisively improved the system by introducing Sustainability Audits by external auditors, by optimizing processes and by significantly increasing the number of Sustainability Self Assessments.



Agreed-upon improvement measures within

Supplier Quality Audits with Sustainability Module in fiscal 2010<sup>1</sup>



Improvement measures agreed upon relate either to actual deviations from the Code of Conduct for Siemens Suppliers or to structural improvements of management systems and the supplier's lack of specific processes and guidelines. 1

#### Number of Supplier Quality Audits with Sustainability Module in the last three fiscal years

FY 2010	346						
FY 2009	343						
FY 2008	336	1					
		·					

Suppliers found to have violated the Code of Conduct for Siemens Suppliers are given an opportunity to rectify their infractions within an appropriate period of time by implementing improvement measures. If violations occur repeatedly, the offending suppliers are excluded from doing business with Siemens. Our principle here is to develop suppliers in close partnership by building up their competency for the long-term.

57 Strategy

- Innovation 62
- Customers and portfolio 65 68 Compliance
- 71 Environmental protection
- Product responsibility



As a result of our Supplier Quality Audits with Sustainability Module in fiscal 2010, we agreed to 1,637 improvement measures with our suppliers and, as part of independent External Sustainability Audits, an additional 1,372 improvement measures. The reported non-conformances were related for the most part to structural improvements in management systems and the lack of relevant processes and guidelines.

For three suppliers, however, we determined serious deviations which were rectified after a deadline was set. Due to serious violations of the Code of Conduct for Siemens Suppliers, we excluded one company in the qualification phase from doing business with Siemens.

102 Further information

www.siemens.com/sr/supplier www.siemens.com/scm

#### | Supplier goals

Goals	Target date	Status
200 sustainability audits conducted by external auditors at suppliers in non-OECD countries.	9/2010	We reached this goal.
Revise the contents of our detection modules and audit protocols and specify their use in greater detail in a guideline for the entire company.	9/2010	We reached this goal. We developed the system of detection modules, further improved and harmonized processes and bindingly regulated the system throughout the company in a Managing Board Circular.
Address potential for improvement on the part of our suppliers and implement it sustainably by building up our suppliers' skills.	9/2010	We reached this goal (see "Knowledge transfer and building competence" on page 87).
Develop online training for our suppliers to support our sustainability requirements. We will offer this training to all suppliers.	12/2010	We reached this goal. An online training unit on "Sustainability in the supply chain" has been available to all suppliers since 11/2010 at no charge.
With the help of a tool for supplier self-assessment, integrate 50 suppliers with energy-intensive production processes in the Energy Efficiency Program (EEP).	9/2011	In a pilot project, we integrated 17 production facilities of major suppliers in the EEP. Based on the very promising results, we will considerably expand the program (see "New goals").
New goals		
Increase the number of external sustainability audits and conduct them for at least 250 additional suppliers.	9/2011	
Conduct sustainability workshops for suppliers in additional non-OECD countries.	9/2011	
Integrate 1,000 energy-intensive suppliers in the Energy Efficiency Program ( $EEP_4$ Suppliers).	9/2012	

97 Indices

- 83 Employees 87 Suppliers
- 90

Corporate citizenship PwC Independent Assurance Report 95

<sup>80</sup> Occupational health and safety management

### Corporate citizenship

Siemens is an integral part of society in many parts of the world. Ever since its beginnings, the company has shown a strong sense of social responsibility as a corporate citizen, both locally and internationally.

One of Siemens' goals is to sustainably improve living conditions for as many people as possible, worldwide. We work toward that goal with business activities that address the chal-

lenges of our times: demographic You can find out more inchange, urbanization, climate change formation about corporate and globalization. We supplement these Internet at: activities with endeavors to build up and secure the structures needed to support

citizenship subjects on the www.siemens.com/sr/ corporate-citizenship

sustainable development in each country. Our corporate citizenship activities, geared to local needs, concentrate on environmental protection, education, social and humanitarian relief, and promoting the arts and culture.

Siemens operates in over 190 countries around the world. In many of them, the company has been deeply anchored in local business and society for decades as employer, customer, taxpayer and good corporate citizen. Here, as in our program for global value added in purchasing ("Global Value Sourcing"), we place special emphasis on local value generation which helps strengthen the local economy (you can find out more about Global Value Sourcing on page 88). That's why, for example, we set up regional development centers and local service units. To ensure and promote stability and prosperity in the social environment at the local level, we focus our commitments on the specific needs of communities as well as on our core competences.

In particular, we encourage and support education and training for young people in the sciences and technology. In fiscal 2010, we introduced a new "environmental protection" category to include this core Siemens theme in our corporate citizenship activities as well.

On the basis of the Siemens Business Conduct Guidelines, our Corporate Citizenship Policy, and established rules for the strategic focus, management and oversight of donations, we utilize a variety of tools to back our commitment. We support corporate citizenship projects with cash donations, while at the same time providing concrete support with donations in kind, for example, in the form of appropriate products and solutions (see "Donations" table on page 93).

We also support projects by donating time - in other words, the voluntary personal involvement of our employees. We concentrate our social engagement primarily on long-term support and on helping people help themselves (see page 91 and on the Internet at www.siemens.com/sr/corporate-citizenshipprojects for examples). In addition, we provide immediate aid after natural disasters, such as water purifying systems after the Haiti earthquake and Pakistan floods in 2010, and €2 million in donations to the German Red Cross.

In addition to the amount of a donation, the impact it has is particularly important for us. That's why we regularly assess the efficacy of our corporate citizenship projects. For example, our support for two South African training facilities for technical occupations - the SAJ Competency Training Institute in Germiston and the College in Lephalale - is directly tied to the number of students that graduate. If all students pass their state-certified final exams, the college receives 100 percent of the funding for the year; if 80 percent graduate, the college receives 80 percent. Our initiative has created more than 1,200 additional training positions, and over 90 percent of the students at SAJ and more than 70 percent at Lephalale College have graduated.

For fiscal 2011, our goal is to implement our corporate citizenship strategy and further develop our donation strategy and the tracking of its success. The system will enable us to more effectively track our initiatives' effects on society and business in the future.

Our corporate citizenship activities help advance the United Nations' Millennium Development Goals and the principles of can be found at: the UN Global Compact. Our efforts include heightening awareness of responsi-

Additional information about our participation in the UN Global Compact www.siemens.com/sr/ global-compact

bility for protecting the environment and the climate, and taking steps to combat poverty and corruption.

57 Strategy

- Innovation 62
- 65 Customers and portfolio 68
- Compliance 71 Environmental protection
- Product responsibility

#### Donations

	FY 2010			FY 2009			FY 2008			
Total (in millions of euros)	36.0			30.6			30.2	1		
Share of net profit (in percent)	0.9			1.2	1		0.5	1		

#### Donations by category, by fiscal year (in millions of euros)

	FY 2010			FY 2009			FY 2008			
Education and science	19.91			17.31			13.1			
Humanitarian and social issues	11.3			6.0			9.6			
Arts and culture	4.5			7.3			7.5			
Environmental protection <sup>2</sup>	0.3			-			-			
Total	36.0			30.6	1	1	30.2			

Donations for education and science in fiscal 2009 and 2010 in Germany (Siemens AG) include a special effect from the contribution of €5 million (2009) and €7.5 million (2010) by Siemens AG to the ESMT-Stiftung, European School of Management and Technology GmbH.
 The category of "environmental protection" was introduced at the beginning of fiscal 2010.

Donations by Region and fiscal year (in millions of euros)

	FY 2010					FY 2009			FY 2008			
Germany	22.61					16.8¹			11.5			
Europe (except Germany), C.I.S., <sup>2</sup> Africa, Middle East	4.5					5.4			6.5			
Americas	6.0					5.8			8.5			
Asia, Australia	2.9				_	2.6			3.7			
Total	36.0					30.6	1		30.2 <sup>3</sup>			

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Donations for education and science in fiscal 2009 and 2010 in Germany (Siemens AG) include a special effect from the contribution of €5 million (2009) and €7.5 million (2010) by Siemens AG to the ESMT-Stiftung, European School of Management and Technology GmbH. Commonwealth of Independent States Siemens made two major donations in fiscal 2008 to the Siemens Foundation in the United States and the Siemens Stiftung in Germany. We provided the Siemens Stiftung in Germany with an endowment of €30 million, and we supported the Siemens Foundation in the U.S. with a capital contribution of US\$50 million (around €32 million). For better comparability, these expenditures are not included in the key figures presented.

The Siemens Stiftung, established in 2008 as a foundation under German civil law, complements Siemens' corporate citizenship activities in three areas: It supports expanding basic ser-

vices and improving social structures, More information about initiates educational projects, and con- the Siemens Stiftung's tributes to intensifying cultural identity. able at: The Siemens Stiftung supports projects to www.siemens.stiftung.org

strengthen civil society in Africa, Latin

goals and projects is avail-

97 Indices

holistic, non-business-related projects and models with a regional focus, while the company's corporate citizenship activities are more business-related and often closely related to the respective country or location.

102 Further information

www.siemens.com/sr/corporate-citizenship

America, Europe and Germany by making lasting contributions toward reducing poverty and improving education. As an independent institution, the Siemens Stiftung focuses primarily on

- 83 Employees
- 87 Suppliers 90 Corporate citizenship
- 95 PwC Independent Assurance Report

## Corporate citizenship world map



- 87 Suppliers 90
- Corporate citizenship PwC Independent Assurance Report 95

91

<sup>80</sup> Occupational health and safety management83 Employees

#### 🔚 Education

Siemens concentrates on scientific and technical education for youth.

#### Environmental protection

Siemens is committed to the sustainable use and protection of natural resources.

#### Social and humanitarian aid

Siemens supports sustainable improvements in living standards and provides immediate aid in catastrophes.

#### Mart and culture

Siemens support the arts and culture as a way of reinforcing social identities.

#### www.siemens.com/sr/corporate-citizenship-projects



#### Corporate citizenship goals

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Goals	Target date	Status
<b>Establish a strategic governance framework</b> Describe the updated corporate citizenship strategy. Develop an operational citizenship guideline.	by 9/2010	Reached in part. Framework, structure, citizenship focus areas, principles and contact persons have been defined. Implementation will follow with the further development of the donation strategy.
Coordinate the company's corporate citizenship strategy with the charitable activities of the Siemens Stiftung.	by 9/2010	Goal reached. Coordination is organized at regular meetings to ensure synergies.
Update the global strategy for establishing foundations.	by 9/2010	Goal reached. The strategy for establishing new foundations has been defined.
New goals		
Implement the Corporate Citizenship strategy.	by 9/2011	
Further develop the donation strategy and tracking of its success.	by 12/2011	

53 Introduction 94

- 62 Innovation
  65 Customers and portfolio
  68 Compliance
  71 Environmental protection
  77 Product responsibility

### Independent Assurance Report

The audit performed by PwC relates exclusively to the German print version of the Sustainability Report. The following text is a translation of the original German Independent Assurance Report.

To Siemens AG, Berlin and Munich

We have been engaged to perform a limited assurance engagement on the Sustainability Report 2010 (the "Sustainability Report") for the fiscal year 2010 of Siemens AG, Berlin and Munich.

#### MANAGEMENT'S RESPONSIBILITY

The Managing Board of Siemens AG is responsible for the preparation of the Sustainability Report in accordance with the criteria stated in the Sustainability Reporting Guidelines Vol. 3 (pp. 7-17) of the Global Reporting Initiative (GRI):

- > Materiality,
- > Stakeholder Inclusiveness,
- > Sustainability Context,
- > Completeness,
- > Balance,
- > Clarity,
- > Accuracy,
- > Timeliness,
- > Comparability and
- > Reliability.

This responsibility includes the selection and application of appropriate methods to prepare the Sustainability Report and the use of assumptions and estimates for individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the Sustainability Report.

#### PRACTITIONER'S RESPONSIBILITY

Our responsibility is to express a conclusion based on our work performed as to whether any matters have come to our attention that cause us to believe that the Sustainability Report for the fiscal year 2010 has not been prepared, in all material respects, in accordance with the above mentioned criteria of

97 Indices

the Sustainability Reporting Guidelines Vol. 3 of the GRI. We also have been engaged to make recommendations for the further development of sustainability management and sustainability reporting based on the results of our assurance engagement.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement under consideration of materiality to express our conclusion with limited assurance.

In a limited assurance engagement the evidence-gathering procedures are more limited than in a reasonable assurance engagement (for example, an audit of financial statements in accordance with § (Article) 317 HGB ("Handelsgesetzbuch": "German Commercial Code")), and therefore less assurance is obtained than in a reasonable assurance engagement.

The procedures selected depend on the practitioner's judgement. Within the scope of our work we performed amongst others the following procedures:

- > Inquiries of personnel in the central function Corporate Sustainability responsible for the preparation of the Sustainability Report regarding the process to prepare the Sustainability Report and the underlying internal control system;
- > Inquiries of personnel in the corporate functions that are responsible for the topics Corporate Sustainability, Innovation, Customers and portfolio, Compliance, Environmental protection, Product responsibility, Occupational health and safety management, Employees, Suppliers and Corporate citizenship;
- > Inspection and sample testing of the systems and process documentation for collection, analysis, plausibility checks and aggregation of sustainability data;
- > Site visits as part of the inspection of processes for collecting, analyzing and aggregating the selected data:
  - in the corporate headquarters,
  - in all three Sectors by visiting the Divisions Building Technologies, Fossil Power Generation as well as Imaging & IT,
  - at the Building Technologies Sites in Buffalo Grove (USA) and Canoas (Brazil),
  - at the Fossil Power Generation Site in Gurgaon (India),

102 Further information

83 Employees

87 Suppliers90 Corporate citizenship

<sup>80</sup> Occupational health and safety management

- at the Imaging & IT Sites in Kemnath (Germany) and Oxford (Great Britain),
- as well as in the Regional Company Brazil (São Paolo);
- > Inspection of internal documents, contracts and invoices/ reports of external service providers;
- > Analytical procedures on selected sustainability data;
- Comparison of selected data with corresponding data in the Siemens Annual Report 2010;
- > Inspection of documents regarding the description and approval of the sustainability strategy as well as understanding the sustainability management structure, the stakeholder dialogue and development process of Siemens AG's sustainability program.

#### **EMPHASIS OF MATTER – RECOMMENDATIONS**

Without qualifying our conclusion above, we make the following recommendations for the further development of sustainability management and sustainability reporting:

- Enhanced reporting of sustainability trade-offs and dilemmas;
- > Company-wide implementation of the new corporate sustainability reporting guideline with the objective of harmonizing the control environment;
- > Continued improvement and documentation of processes and control procedures for gathering sustainability data especially on Division, Business Unit and Site level.

#### CONCLUSION

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that the Sustainability Report for the financial year 2010 has not been prepared, in all material respects, in accordance with the criteria of the Sustainability Reporting Guidelines Vol. 3 (pp. 7-17) of the GRI. Munich, April 15, 2011

PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft

Michael Werner

ppa. Hendrik Fink Wirtschaftsprüfer (German Public Auditor)

# Indices/ Further information

### Indices

- 98 UN Global Compact
- 100 UN CEO Water Mandate
- 101 Global Reporting Initiative

### Further information

- **102** Disclaimer
- 104 Information resources
- 106 Web overview

## **UN Global Compact**

Siemens has been a participant in the UN Global Compact since 2003 and is expressly committed to upholding the Compact's ten principles. This Sustainability Report, and in particular the following report index, describes the progress we have made during the year – broken down according to the systems and measures we have implemented and our achievements.

#### | Index according to the ten principles of the Global Compact

Principle	Systems	Measures	Achievements
<b>Principle 1</b> Support of human rights	With the Siemens Business Conduct Guidelines we have committed ourselves to observing human rights	We operate a modular, risk-based system to check that all our suppliers are adhering to our Code of Conduct	In fiscal 2010, we conducted 346 supplier quality audits with a sustainability audit- ing module. In the process, we identified
<b>Principle 2</b> Exclusion of human rights abuses	and the core labor standards. With our Code of Conduct for Siemens Suppliers we ensure that these basic rights and principles are	for Siemens Suppliers. In the year under review, we commissioned external sustainability audits, opti- mized our processes, and increased	a total of 1,637 potential improvements: around 13 percent (212) involved improve- ments in the area of basic employee rights, and 0.7 percent (13) in the area
Principle 3 Assurance of free- dom of association	also observed in our supply chain. > Compliance, page 68 > Suppliers, page 87 > Fundamental rights of workers	the number of supplier self-assess- ments. > Following up on sustainability requirements, page 88f.	of child labor. External sustainability audits identified a further 1,372 measures for improvement, including 24 percent (326) in the area of basic employee rights
<b>Principle 4</b> Elimination of all forms of forced labor	page 84		and 5.9 percent (81) in the area of child labor. > Following up on sustainability
<b>Principle 5</b> Abolition of child labor			requirements, page 881.
<b>Principle 6</b> Elimination of discrimination	In accordance with our Business Conduct Guidelines and labor legislation in the countries in which Siemens is active, we tolerate no form of discrimination. We actively foster diversity within the company through our Diversity Initiative. > Encouraging and leveraging diversity, page 84	To reflect diversity across all levels in the company, we are rolling out various focused measures, including the formation of a network of around 150 Siemens Diversity Ambassadors and our Global Leadership Organiza- tion of Women. In fiscal 2010, we also introduced the Diversity Scorecard. > Encouraging and leveraging diversity, page 84	In fiscal 2010, women accounted for 25 percent of our total workforce and 13.7 percent of our managers. > Employees in management positions, page 83 > Women employees, page 83

i.	Index according	to the ten	principles	of the	Global	Compact
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Principle	Systems	Measures	Achievements
<b>Principle 7</b> Precautionary approach to environmental protection	Our responsibility for environmental protection is embedded in our Siemens EHS Principles. In addition, our in-house standard SN 36 350 ensures that we comply with the principle of precautionary environ- mental protection in all our product design processes. > Environmental protection, page 71ff. > Product responsibility, page 77ff.	In fiscal 2010, we introduced com- prehensive measures for achieving our reduction goals in the areas of energy (20 percent), water (20 per- cent) and waste (15 percent). Our efforts here include stepping up our Energy Efficiency Program. > Our company environmental program, page 71 > Lifecycle assessments, page 78	Relative to the baseline year 2006, our efficiency improvement was 11 percent in electricity and 23 percent in primary energy and district heating. Our carbon efficiency improved by 18 percent. Environmental performance in the area of waste improved by 10 percent in the same period, and by 28 percent in the area of water. > Industrial environmental protection in figures, page 71ff.
Principle 8 Specific initiatives to promote environmental protection	Raising our employees' awareness of environmental and climate protection is an element of both our environmental strategy and our social commitment. With internal communications measures and our corporate citizenship focus on envi- ronmental protection, we help create a greater sense of responsibility for ecological issues inside and outside the company. > Environmental protection, page 71ff. > Corporate citizenship, page 90	We are implementing numerous internal communications measures in order to heighten our employees' awareness of the environment. As part of our Energy Efficiency Program, we include employees in efforts to improve energy efficiency at indivi- dual locations. In fiscal 2010, we launched a new online in-house competition for sustainability ideas. > Making the most of employee knowledge, page 63 > Environmental protection, page 71ff.	In fiscal 2010, we donated around €19.9 million to education and science. > Donations by category, page 93
<b>Principle 9</b> Diffusion of environmentally friendly technologies	As part of our Environmental Portfolio, we develop and market products and solutions that enable our customers to reduce their CO <sub>2</sub> emissions, lower lifecycle costs and protect the environment. > The Environmental Portfolio is a key driver of sustainable growth, page 65	In fiscal 2010, Siemens invested around 25 percent of its total R&D expenditures in energy-efficient and ecofriendly technologies, primarily in the Energy and Industry Sectors. > The Environmental Portfolio is a key driver of sustainable growth, page 65 > Figures for research and development, page 62f.	The products and solutions of the Siemens Environmental Portfolio that were installed for our customers from 2002 to 2010 have helped them cut their CO <sub>2</sub> emissions by around 267 million tons a year. In fiscal 2010 alone, newly installed products and solutions cut CO <sub>2</sub> emissions by around 53 million tons. > The Environmental Portfolio is a key driver of sustainable growth, page 65
Principle 10 Measures against corruption	The Siemens Business Conduct Guidelines are the heart of our Compliance Program. > Compliance, page 68ff.	As part of One Siemens, we set four key focal points in fiscal 2010 aimed at advancing the prevention of cor- ruption and other anti-competitive practices within the company. Our efforts here include steps to maximize the effectiveness and efficiency of our compliance processes. > Implementing our internal rules and regulations, page 68f.	Since December 2007, 228,000 employees have completed online compliance train- ing, and 104,000 have received personal compliance training. > Figures on compliance, page 69 For the first round of the Siemens Integ- rity Initiative, we have selected over 30 projects with a total funding volume of approximately US\$40 million. > Siemens Integrity Initiative, page 70

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### **UN CEO Water Mandate**

Siemens became a signatory to the United Nations CEO Water Mandate in 2008. We continue to support the CEO Water Mandate by managing water efficiently in our facilities and by providing our customers with solutions for efficient water use and wastewater treatment through Siemens Water Technologies.

#### 1. BUSINESS ACTIVITIES

For more information on resource and water consumption targets at Siemens locations, see "Facts and figures: Environmental protection," see page 75.

#### 2. WATER AND SUPPLY CHAIN MANAGEMENT

The environmental requirements that our suppliers must fulfill are defined in our Code of Conduct for Siemens Suppliers. For more information on these requirements and supply chain management, see pages 87-89.

#### 3. COLLECTIVE ACTION

Our Siemens Water Technologies Business Unit is committed to driving the development of innovative and sustainable the Siemens Water water treatment technologies such as in collaborative research. Read more on a

For more information on water treatment technologies, visit Technologies website: www.siemens.com/water

research project to reduce energy consumption in seawater desalination and on other sustainable water projects in Singapore in the first part of the report, on pages 34-41.

As a member of various international organizations, we're involved in several other programs and initiatives, including the World Business Council for Sustainable Development (WBCSD) Water Project. You can find out more about our work with external stakeholder groups and organizations on page 59 of this report.

#### 4. PUBLIC POLICY

Siemens Water Technologies celebrates the annual World Water Day with a series of activities to raise awareness of the value of water. This includes the support of the Siemens Stiftung for the SkyJuice Foundation, a charitable organization that supplies the SkyHydrant<sup>™</sup>, a water filtration system for humanitarian projects and disaster relief. We've also developed the Personal Water Footprint Calculator, a tool that we make available through social networks to raise awareness of the importance of using water sparingly.

#### 5. COMMUNITY ENGAGEMENT

We support a variety of water projects through our corporate citizenship activities. Recent examples include the provision of water treatment systems to help the victims of natural disasters like the website Haiti earthquake and the flooding in Pak- www.skyjuice.com.gu istan. For further details, see pages 91-92.

Web feature on Siemens' Safe Water Kiosk: www.siemens.com/sr/ safe-water-kiosk

SkyJuice Foundation

#### 6. TRANSPARENCY

You can find the GRI index for our Sustainability Report 2010 on the next page and at full length on the Internet at: www.siemens.com/sr/qri

### **Global Reporting Initiative**



The detailed GRI Index is available at our Sustainability website at: <a href="http://www.siemens.com/sr/gri">www.siemens.com/sr/gri</a>

#### 97 Indices

102 Further information

98 UN Global Compact

101 Global Reporting Initiative

### Disclaimer

New orders and order backlog; adjusted or organic growth rates of Revenue and new orders; book-to-bill ratio; Total Sectors Profit; return on equity (after tax), or ROE (after tax); return on capital employed (adjusted), or ROCE (adjusted); Free cash flow; cash conversion rate, or CCR; adjusted EBITDA; adjusted EBIT; adjusted EBITDA margins, earnings effect from purchase price allocation (PPA effects) and integration costs; net debt and adjusted industrial net debt are or may be non-GAAP financial measures. These supplemental financial measures should not be viewed in isolation as alternatives to measures of Siemens' financial condition, results of operations or cash flows as presented in accordance with IFRS in its Consolidated Financial Statements. Other companies that report or describe similarly titled financial measures may calculate them differently. Definitions of these supplemental financial measures, a discussion of the most directly comparable IFRS financial measures, information regarding the usefulness of Siemens' supplemental financial measures, the limitations associated with these measures and reconciliations to the most comparable IFRS financial measures are available on Siemens' Investor Relations website at www.siemens.com/nonGAAP. For additional information, see "Supplemental financial measures" and the related discussion in Siemens' annual report on Form 20-F for fiscal 2010, which can be found on our Investor Relations website or via the EDGAR system on the website of the United States Securities and Exchange Commission.

There is no standard system that applies across companies for qualifying products and solutions for environmental and climate protection, or for compiling and calculating the respective revenues and the quantity of reduced carbon dioxide emissions attributable to such products and solutions. Accordingly, revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions may not be comparable with similar information reported by other companies. Revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions are derived from various internal reporting systems that are generally different from those applicable to the financial information presented in our Consolidated Financial Statements and are, in particular, subject to less sophisticated internal documentation as well as preparation and review requirements, including the IT systems in use and the general internal control environment. We may change our policies for recognizing revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions in the future without previous notice.

This document contains forward-looking statements and information – that is, statements related to future, not past, events. These statements may be identified by words such as "expects," "looks forward to," "anticipates," "intends," "plans," "believes," "seeks," "estimates," "will," "project" or words of similar meaning. Such statements are based on the current expectations and certain assumptions of Siemens' management, and are, therefore, subject to certain risks and uncertainties. A variety of factors, many of which are beyond Siemens' control, affect Siemens' operations, performance, business strategy and results and could cause the actual results, performance or achievements of Siemens to be materially different from any future results, performance or achievements of siemens to be materially different from any future results, performance or achievements as these directly impact its processes, customers and suppliers. This may negatively impact our revenue development and the realization of greater capacity utilization as a result of growth. Yet due to their diversity, not all of Siemens' businesses are equally affected by changes in economic conditions; considerable differences exist in the timing and magnitude of the effects of such changes. This effect is amplified by the fact that, as a global company, Siemens is active in countries with economies that vary widely in terms of growth rate. Uncertainties arise from, among other things, the risk of customers delaying the conversion of recognized orders into revenue or cancelling recognized orders, of prices declining as a result of adverse market conditions by more than is currently anticipated by Siemens' management or of functional costs increasing in anticipation of growth that is not realized as expected. Other factors that may cause Siemens' results to deviate

from expectations include developments in the financial markets, including fluctuations in interest and exchange rates (in particular in relation to the US\$ and the currencies of developing countries such as China, India or Brazil), in commodity and equity prices, in debt prices (credit spreads) and in the value of financial assets generally. Any changes in interest rates or other assumptions used in calculating obligations for pension plans and similar commitments may impact Siemens' defined benefit obligations and the anticipated performance of pension plan assets resulting in unexpected changes in the funded status of Siemens' pension and other post-employment benefit plans. Any increase in market volatility, deterioration in the capital markets, decline in the conditions for the credit business, continued uncertainty related to the subprime, financial market and liquidity crises, or fluctuations in the future financial performance of the major industries served by Siemens may have unexpected effects on Siemens' results. Furthermore, Siemens faces risks and uncertainties in connection with: disposing of business activities, certain strategic reorientation measures; the performance of its equity interests and strategic alliances; the challenge of integrating major acquisitions, implementing joint ventures and other significant portfolio measures; the introduction of competing products or technologies by other companies or market entries by new competitors; changing competitive dynamics (particularly in developing markets); the risk that new products or services will not be accepted by customers targeted by Siemens; changes in business strategy; the outcome of pending investigations, legal proceedings and actions resulting from the findings of, or related to the subject matter of, such investigations; the potential impact of such investigations and proceedings on Siemens' business, including its relationships with governments and other customers; the potential impact of such matters on Siemens' financial statements, and various other factors. More detailed information about certain of the risk factors affecting Siemens is contained throughout this report and in Siemens' other filings with the SEC, which are available on the Siemens website, www.siemens.com, and on the SEC's website, www.sec.gov. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the relevant forward-looking statement as expected, anticipated, intended, planned, believed, sought, estimated or projected. Siemens neither intends to, nor assumes any obligation to, update or revise these forward-looking statements in light of developments which differ from those anticipated.

- 102 Disclaimer
- 104 Information resources
- 106 Web overview

<sup>102</sup> Further information

## Information resources

#### ADDRESS

Siemens AG Wittelsbacherplatz 2 80333 Munich Germany

# CONTENT RESPONSIBILITY AND CONTACT FOR CONTENT-RELATED QUESTIONS

Corporate Sustainability:

Ralf Pfitzner Phone +49 89 636-42241 E-mail ralf.pfitzner@siemens.com

#### PROJECT COORDINATION

Corporate Communications and Government Affairs Dr. Johannes von Karczewski E-mail johannes.karczewski@siemens.com

#### FURTHER INFORMATION

This Sustainability Report is also available in German. Both the English and German versions are available online at: www.siemens.com/sustainability-report www.siemens.com/nachhaltigkeitsbericht

Additional information on sustainability is available at the Internet links specified in this report as well as at: www.siemens.com/sustainability

In addition to the Sustainability Report, Siemens publishes a comprehensive Annual Report at the end of each fiscal year and consolidated financial statements on a quarterly basis. All these financial reports are available from Investor Relations at:

www.siemens.com/financialreports

#### ORDERING THE SUSTAINABILITY REPORT

E-mail	siemens@bek-gmbh.de
Internet	www.siemens.com/
	order-sustainabilityreport
Fax	+497237-1736

#### ORDERING THE SUSTAINABILITY REPORT SIEMENS EMPLOYEES

Intranet	https://c4bs.gss.siemens.com
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Complan Medien GmbH, Berlin – Bonn – Hamburg häfelinger + wagner design GmbH, Munich Publicis KommunikationsAgentur GmbH, GWA, Munich

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#### ECOFRIENDLY PRODUCTION

The Sustainability Report has been produced with particular attention to using chlorine-free bleached materials and climate-friendly production processes. In accordance with the Forest Stewardship Council (FSC), the paper used was made only from wood from controlled sources such as managed forests. The mill in which the paper was manufactured is certified in accordance with the ISO 9001, 14001 and 18001 standards. It uses only chlorine-free bleached (TCF) cellulose, which in some cases is even elemental chlorine-free (ECF).



## Web overview

#### SITEMAP

$\vdash$		
$\vdash$	 	
 1	 	

#### 102 Further information

102 Disclaimer104 Information resources106 Web overview

### Web overview

UNDERSTANDING OF SUSTAINABILITY

www.siemens.com/sr/sustainability-understanding

ORGANIZATION

www.siemens.com/sr/organization

ENVIRONMENTAL PORTFOLIO

www.siemens.com/sr/environmental-portfolio

STARTING PAGE

www.siemens.com/sustainability

CORE TOPICS

www.siemens.com/sr/coretopics

SUSTAINABILITY REPORTING

www.siemens.com/sr/reports

PRACTICING SUSTAINABILITY

www.siemens.com/sr/practicing-sustainability

#### Innovation

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Customers and portfolio

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Compliance

www.siemens.com/sr/compliance

Environmental protection

www.siemens.com/sr/environmental-protection

Product responsibility

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Safety

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Health management

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Employees

www.siemens.com/sr/employees

Suppliers

www.siemens.com/sr/suppliers

Corporate citizenship

www.siemens.com/sr/corporate-citizenship

#### FEEDBACK

Your assessment or criticism of our Sustainability Report 2010 and any suggestions for improvement you may have will help us to improve future reports. We look forward to receiving your feedback at:

www.siemens.com/sr/feedback-report




## Siemens at a glance

**SIEMENS** 

www.siemens.com

### Key figures<sup>1</sup>

Financial performance measures (in millions of euros, unless otherwise indicated)	FY 2010	FY 2009
New orders (continuing operations)	81,163	78,991
Revenue (continuing operations)	75,978	76,651
Profit Total Sectors	7,789	7,466
Income from continuing operations	4,112	2,457
Return on capital employed (ROCE) (continuing operations) <sup>2</sup>	10.4%	6.1%
Capital structure <sup>3</sup>	0.08	0.31
Free cash flow (continuing operations)	7,111	3,786
Dividend per share (in euros)	2.70	1.60

### Employees (continuing operations)<sup>4</sup>

Total employees worldwide (in thousands) <sup>4</sup>	405	405
Employees in Germany (in thousands) <sup>4</sup>	128	128

#### Research and development

R&D employees (in thousands)⁵	30.1	31.8
R&D expenditures (in millions of euros)	3,846	3,900
Percentage of total revenue invested in R&D	5.1%	5.1%
Major R&D facilities	178	176

### Siemens' Environmental Portfolio

Revenue from Environmental Portfolio (in billions of euros)	27.6	26.8
Annual reduction of greenhouse gas emissions due to products and solutions from		
Environmental Portfolio, compared to the start of fiscal 2002 (in millions of tons of CO <sub>2</sub> )	267	214

Some of the figures mentioned above are or may be non-GAAP financial measures. For further information please refer to www.siemens.com/nonGAAP.

1 All figures in this brochure correspond to the information published in the Siemens Annual Report 2010

4 As of September 30, 2010 and 2009

5 Average number of employees in fiscal year

FY 2010: including (3.6) pp related to impairment charges of €1.204 billion (pre-tax) related to Diagnostics and charges of €460 million (pre-tax) related to the strategic reorientation of Siemens IT Solutions and Services; FY 2009: including (4.6) pp related to impairment charges of €1.850 billion (pre-tax) at NSN 3 Adjusted industrial net debt/adjusted EBITDA (continuing operations)

Siemens AG (Berlin and Munich) is a global powerhouse in electronics and electrical engineering, operating in the industry, energy and healthcare sectors.

For over 160 years, Siemens has stood for technological excellence, innovation, quality, reliability and internationality. The company is one of the world's largest providers of ecofriendly technologies, generating about  $\in$ 28 billion – more than one-third of its total revenue – with green products and solutions. In fiscal 2010, which ended on September 30, 2010, revenue totaled some  $\in$ 76 billion and net income  $\in$ 4.1 billion. At the end of September 2010, Siemens had around 405,000 employees worldwide.

Further information is available in our Annual Report for 2010 and on our company website at *www.siemens.com*.

All information in this brochure corresponds to the data published in the Siemens Annual Report 2010.

In particular, this brochure does not take into account organizational changes and announced or already implemented portfolio measures in fiscal 2011.

### Strategy

Responsible, excellent and innovative – these are the values that define who we are and what we do. Sustainability in the broad sense – support for long-term environmental, economic and social progress – is the guiding principle of all our actions.

Our company is providing the world with the solutions it needs to master the challenges of demographic change, urbanization, climate change and globalization. To leverage the potential of these megatrends in both traditional and new markets, we've grouped our activities into three Sectors: Industry, Energy and Healthcare.

We're in an excellent competitive position. Many of our businesses are already market and technology leaders. But we don't just want to maintain our position; we want to expand it. That's why we're:

- > focusing on innovation- and technology-driven growth markets
- > strengthening our global presence to be a strong local partner to our customers around the world and
- > teaming up to use the power of Siemens.

One Siemens is the framework for our company's sustainable development and capital-efficient growth. Within this framework, focus areas specify the fields we'll concentrate on in the years ahead. Our overriding aim is to continuously improve our performance vis-à-vis the markets and our competitors while increasing our company value.

We want to fully unleash the power of our integrated technology company – for example, by constantly enlarging our Environmental Portfolio and steadily increasing the profit it generates, by continuously expanding our highly diversified service business and by further strengthening our position in the booming markets of the emerging countries.

All these strategic factors are combined in our vision. As a pioneer in electrical engineering, we were a major force in industrialization. It was our pioneering spirit that made us the global powerhouse we are today. And now we're moving ahead to break new ground in energy efficiency, industrial productivity, affordable and personalized healthcare, and intelligent infrastructure solutions – future-oriented fields in which we'll also play a pioneering role.

Further information is available on our company website at *www.siemens.com/strategy*.

### Siemens stock

Siemens stock performed exceptionally well in fiscal 2010, closing at €77.43 per share on September 30, 2010. This was an increase of 22.4 percent over the closing price a year earlier. For shareholders who reinvested their dividends, the gain amounted to 25.4 percent (fiscal 2009: 1.3 percent). In fiscal 2010, the Siemens share substantially outperformed the German and international stock markets, whose leading indices, the DAX 30 and MSCI World, appreciated in the same period

by 9.8 percent and 6.8 percent, respectively. As proposed by the Managing Board and the Supervisory Board, a dividend payment of €2.70, a substantial increase of €1.10, was approved at the Annual Shareholders' Meeting on January 25, 2011. After three years in which our dividend remained stable despite a weak economic environment, this proposal reflects our improved earnings position in fiscal 2010.



#### Stock market information (in euros, unless otherwise indicated)

	FY 20101	FY 20091
Stock price range (Xetra closing prices)		
High	79.37	66.45
Low	60.20	35.52
Year-end	77.43	63.28
Number of shares (year-end, in millions)	914	914
Market capitalization (in millions of euros) <sup>2</sup>	67,351	54,827
Earnings per share – continuing operations	4.54	2.60
Earnings per share <sup>3</sup>	4.49	2.65
Dividend	2.70	1.60

1 Fiscal year from October 1 to September 30

2 On the basis of outstanding shares

3 On the basis of continuing and discontinued operations

### Global presence – The cornerstone of competitiveness



Europe, C.I.S., <sup>1</sup> Africa, Middle East	
Worldwide share	Worldwide share
20,643     27%     Revenue (in millions of euros) <sup>2</sup> 41,426	55%
91 23% Employees (in thousands) <sup>3</sup> 240	59%
59 33%   Major R&D facilities <sup>4</sup> 93	52%
20,643     27%     Revenue (in millions of euros) <sup>2</sup> 41,426       91     23%     Employees (in thousands) <sup>3</sup> 240       59     33%     Major R&D facilities <sup>4</sup> 93	

1 Commonwealth of Independent States 2 By customer location 3 As of September 30, 2010 4 15 employees or more



Therein Germany		
	1	Worldwide share
Revenue (in millions of euros) <sup>1</sup>	11,432	15%
Employees (in thousands) <sup>2</sup>	128	32%
Major R&D facilities <sup>3</sup>	49	28%

### | Asia, Australia

		Worldwide share
Revenue (in millions of euros) <sup>1</sup>	13,909	18%
Employees (in thousands) <sup>2</sup>	74	18%
Major R&D facilities <sup>3</sup>	26	15%

1 By customer location 2 As of September 30, 2010 3 15 employees or more

Innovations are one of the most important pillars of our business success. In fiscal 2010, we invested €3.846 billion in research and development, maintaining our R&D outlays at a high level despite the financial and economic crisis. We developed new key technologies and brought cutting-edge innovations to market readiness. Breakthroughs included the commissioning in China of the world's first high-voltage direct-current transmission system to transport electricity at a voltage of 800 kilovolts, and the market launch of the latest generation of gas turbines in the U.S. When operated in a combined cycle with steam turbines, our new gas turbines achieve a record-breaking efficiency of over 60 percent. By comparison, the average efficiency of combined-cycle power plants in the U.S. is currently less than 40 percent.

These are just two examples of successful innovations from our Environmental Portfolio. Other ecofriendly technologies developed by our researchers include new solutions for smart grids, electric mobility (from drives to rapid battery recharge stations), organic light-emitting diodes, solar energy, CO<sub>2</sub> separation for power plants, and power storage units for renewable energies. R&D for our Environmental Portfolio focuses primarily on increasing the efficiency of power generation (whether renewable or conventional), low-loss power transmission, the expansion of smart grids, and efficient energy utilization in transportation, industry, building technology and lighting. Our researchers are also working on the further development of water and air pollution controls and drinking water treatment systems that use, for example, new membrane technologies.

In fiscal 2010, products and solutions from our Environmental Portfolio generated revenue of some €28 billion – an increase over fiscal 2009 – and cut our customers' CO<sub>2</sub> emissions by 267 million tons, an amount equal to the total annual CO<sub>2</sub> emissions of New York, Tokyo, London, Hong Kong, Berlin and Rome.

### Patents and research expenditures

Siemens holds roughly 58,000 patents worldwide. In terms of the number of published patent applications, the company ranked third in Germany and second in Europe in calendar 2009. Regarding the number of patents granted, Siemens ranked thirteenth in the U.S. in 2009. In the same period, our employees submitted around 8,800 invention reports – about 40 per workday.

### **Employees and partnerships**

Siemens has roughly 30,100 R&D employees, of whom 12,800 are in Germany and 17,300 in other countries such as the U.S., China, Austria, India, Slovakia, Switzerland, the UK, Croatia, Sweden, Denmark, the Czech Republic and France. To remain at the cutting edge of innovation, we participate every year in over 1,000 research partnerships with universities, research institutes and industrial partners around the world.

### Corporate Technology (CT), our central research unit,

works hand-in-hand with the R&D teams at our Sectors and Divisions. With major research centers in Germany, the U.S., Austria, Slovakia, Russia, India, China, Japan and Singapore, CT employs over 5,000 people in a worldwide network of innovation. Corporate Technology conducts research in some 50 technology fields, including materials and microsystems, production processes, security, software and engineering, energy systems and sensors. The unit also develops new solutions for automation, healthcare IT systems and imaging processes, information and communications technologies, and the extraction and processing of raw materials. Reference projects intended to generate new business opportunities in areas of major strategic importance such as electric mobility and smart grids round out CT's technology portfolio. In addition, both CT and the Sectors are developing so-called SMART (simplicity, maintenance-friendly, affordable, reliable and timely-to-market) solutions, some of which are already in use. Geared specifically to local requirements, these solutions - for example, for healthcare applications and decentralized power generation – are designed to make new technologies competitive in low-price markets.

### 1. World's most powerful and ecofriendly gas turbines

In the U.S., we've successfully launched our latest generation of gas turbines, which achieve a record-setting efficiency of slightly over 60 percent when coupled with steam turbines. This new technology will enable Florida Power & Light to reduce fuel consumption at two of its power plants by one-third and cut  $CO_2$  emissions to less than half their current levels. The U.S. utility will also save about \$1 billion in operating, maintenance and investment costs over the turbines' complete lifecycle.

### 2. Wind turbines from a single cast

Having installed over 9,000 wind turbines worldwide, we're the market leader in offshore wind power. With a total output of over 11,500 megawatts – of which 1,400 are generated at 16 offshore projects – these turbines are reducing  $CO_2$  emissions by a total of 27 million tons a year. Produced in a single cast and without seams using a patented integral technique, the turbines' blades can withstand wind and weather for more than 20 years, even when located on the high seas.

### 3. Solar power plants

We're a single-source supplier of all key components for parabolic trough power plant construction and the global market leader in steam turbine generators for solar-thermal power plants. Our offerings include innovative, tried-and-tested large-scale photovoltaic systems as well as services, monitoring and maintenance for solar power systems.

### 4. Electricity highways

The world's first high-voltage direct-current (HVDC) transmission system to transport electricity at a voltage of 800 kilovolts is now linking hydropower plants in China's Yunnan Province with the megacities of the Pearl River Delta. HVDC technology ensures that transmission losses along the more than 1,400-kilometer route are extremely low – in fact, about 50 percent lower than those of comparable alternating-current systems.

### 5. World's brightest light-emitting diodes

OSRAM's light-emitting diodes (LEDs) are among the world's brightest and most efficient, slashing energy consumption more than 80 percent compared to conventional light bulbs and lasting between 20 and 50 times longer. LEDs are already used in a wide array of applications – in everything from automobile headlights to building illumination. For example, more than 12,000 high-performance OSRAM LEDs now light up the arch spanning the new stadium in Durban, South Africa. OSRAM is also a technology leader in innovative organic light-emitting diodes (OLEDs) – surface-emitting luminations that are extremely thin and efficient.

### 6. Building systems with guaranteed energy savings

Buildings consume about 40 percent of the world's energy and – due to their heat and power requirements – account for some 21 percent of all greenhouse gas emissions. But significant savings can be achieved through targeted measures. That's why we've introduced energy-saving performance contracting (ESPC). Combining consulting, installation and financing, ESPC requires no upfront investments: costs are amortized within a contractually specified time through energy savings. To date, we've implemented 1,900 ESPC projects worldwide, generating guaranteed energy savings of €2 billion.

### 7. Maximum rail efficiency

Reaching speeds of up to 350 kilometers an hour, Siemens' Velaro is one of the world's fastest and most efficient trains in series production, consuming only about 0.33 liters of fuel per 100 passenger-kilometers. Velaro trains are already operating successfully in China, Russia and Spain. In Germany, we'll be delivering Velaro D supertrains to rail operator Deutsche Bahn at the end of 2011.

### 8. Filling up with electricity

Electric cars powered from renewable energy sources are the world's most ecofriendly means of transport. When their batteries are used as temporary energy storage devices, they also help stabilize power grids. We're developing solutions for electric vehicles – for example, electric drives – as well as for the associated power infrastructures, including everything from rapid battery recharge systems and vehicle-to-grid communications technologies to the smart grids themselves.

### 9. Ultrasound breast scanner

The Acuson S2000 Automated Breast Volume Scanner (ABVS) – an advanced ultrasound system that generates and analyzes complete 3D images of the breast – is ideally suited for imaging patients with dense breast tissue. Over 100 Acuson S2000 ABVS systems have already been installed in hospitals and doctors' offices worldwide.

### 10. Everything in a single image

The development of the world's first integrated whole-body MR-PET scanner, Biograph mMR, \* was a pioneering achievement in medical imaging. For the first time, physicians can simultaneously capture the position of the organs in the body, its functional processes and its metabolism in one single image. They can see not just where a tumor is located, but also its type and activity, and can do a better diagnosis than before, for example in tumor staging. This technology opens up new possibilities, especially in the areas of neurodegenerative diseases such as Alzheimer's, and also for cancer.

<sup>\*</sup> The product might not be approved in some countries or, for other reasons, not yet commercially available.

Our Industry Sector is one of the world's leading suppliers of manufacturing, transportation, building and lighting systems. By continuously optimizing productivity, efficiency and flexibility, we're increasing the economic and environmental competitiveness of our customers in the industry and infrastructure segments.

Further information is available at *siemens.com/industry*.

### Key figures for fiscal 2010

Total revenue (in millions of euros)	34,869
New orders (in millions of euros)	34,908
Profit (in millions of euros)	3,478
Profit margin	10.0%
Employees (in thousands) <sup>1</sup>	204

1 As of September 30, 2010

### **Industry Automation**

Fast, flexible, efficient: we offer our customers a unique combination of automation technologies and industrial software spanning the entire value chain – from product design to service. Our portfolio enables industry customers to slash timeto-market by up to 50 percent.

www.siemens.com/sr/industry-automation

#### **Drive Technologies**

Productivity, energy efficiency and reliability are our customers' key requirements. And as the world's No. 1 supplier of products, end-to-end systems, applications and services for complete power trains and for all industry segments, we have the solutions they need.

www.siemens.com/sr/drive-technologies

### **Building Technologies**

We're the preferred partner when it comes to maximizing energy efficiency in buildings and protecting people and infrastructures. Our portfolio comprises products, solutions and services for building automation, fire safety, security and power distribution.

www.siemens.com/sr/building-technologies

### OSRAM<sup>1</sup>

We're an expert partner offering customers energy-saving lighting solutions for all areas of modern life. Our portfolio includes not only lamps and optoelectronic semiconductor light sources like light-emitting diodes (LEDs), LED systems and LED luminaires but also electronic control gear and light management systems.

www.siemens.com/sr/osram

### **Industry Solutions**

We're a leading provider of solutions and services for industrial plants and infrastructure systems, helping customers increase their competitiveness across entire lifecycles and offering attractive solutions in the areas of energy efficiency, pollution control and water management.

www.siemens.com/sr/industry-solutions

### Mobility

By networking transportation systems more effectively, our integrated solutions for intermodal transport, traffic management, postal automation and airport logistics are making the movement of people and goods more efficient and ecofriendly. *www.siemens.com/sr/mobility* 

1 In March 2011, Siemens announced that it planned an initial public offering (IPO) for OSRAM in the fall of 2011 and that it would retain a minority stake in the company over the long term.

### **Energy Sector**

Our Energy Sector is one of the world's leading suppliers of a wide range of products, solutions and services in the field of energy technology. We enable customers to generate, transmit and distribute electrical power at the highest levels of efficiency. We also help them produce, convert and transport the primary fuels oil and gas. We're the only manufacturer worldwide with knowhow, products, solutions and key components spanning the entire energy conversion chain. Our exceptional solutions expertise is particularly striking in the area of interfaces: for example, in plant-to-grid connections, grid integration technologies and smart distribution systems linking grids to consumers.

Further information is available at www.siemens.com/energy.

Total revenue (in millions of euros)	25,520
New orders (in millions of euros)	30,122
Profit (in millions of euros)	3,562
Profit margin	14.0%
Employees (in thousands) <sup>1</sup>	88

| Key figures for fiscal 2010

1 As of September 30, 2010

### Oil & Gas

We offer customers in the oil and gas, process and energy supply industries a wide portfolio of products and solutions for the ecofriendly and resource-saving utilization of energy in areas such as the production and processing of oil and gas and the energy-efficient generation of electricity. www.siemens.com/sr/oil-and-gas

#### **Fossil Power Generation**

Our innovative technologies generate more electricity from less fuel. We boost the efficiency of coal- and gas-based electricity production and provide technologies for low-carbon fossil power generation.

www.siemens.com/sr/fossil-power-generation

### **Renewable Energy**

We're steadily expanding our position in the dynamic renewables market - with innovative wind turbines that rank among the most reliable in the world, with large-scale photovoltaic projects and with leading-edge technologies for solarthermal power plants.

www.siemens.com/sr/renewable-energy

### **Energy Service**

Our broad spectrum of innovative products and services ensures plant reliability, improved efficiency and optimal environmental performance for our customers' operating plant assets in the oil and gas, industrial processing and heat and power generation industries, enabling them to gain the maximum benefit from their investments.

www.siemens.com/sr/energy-service

#### Power Transmission

Leveraging our innovative strengths in low-loss power transmission, reliable switchgear and transformers, and advanced power transmission systems, we enable customers to transmit power – for example, green electricity from renewable energy sources like offshore wind farms - safely and efficiently. www.siemens.com/sr/power-transmission

### Power Distribution

The prerequisite for sustainable energy management, our smart grid technologies increase the efficiency of energy systems. We offer innovative medium-voltage components and systems, solutions for energy automation and services for electrical systems and networks.

www.siemens.com/sr/power-distribution

### Healthcare Sector

The Siemens Healthcare Sector is one of the world's largest healthcare providers. We see ourselves as a medical solutions provider with core competencies and innovative strength in diagnostic and therapeutic technologies as well as in knowledge processing, information technology, and system integration.

Acquisitions in laboratory diagnostics make Siemens Healthcare the first integrated healthcare company to combine imaging and laboratory diagnostics, therapy solutions and medical information technology and supplementing such with consulting and services. We provide solutions for the entire supply chain under one roof – from prevention and early detection via diagnosis to therapy and aftercare. We are also a global market leader in innovative hearing aids.

Further information is available at www.siemens.com/healthcare.

Total revenue (in millions of euros)	12,364
New orders (in millions of euros)	12,872
Profit (in millions of euros)	748
Profit margin	6.1%
Employees (in thousands) <sup>1</sup>	49

1 As of September 30, 2010

Key figures for fiscal 2010

### Imaging & Therapy Systems\*

Modern medicine is inconceivable today without innovative imaging techniques: They enable early and detailed diagnosis of illnesses and can confirm or deny the presence of suspected disease. Imaging systems are now increasingly also being used in therapy. Modern imaging enables forms of therapy which are more gentle on patients and reduce costs. At the same time, they open up treatment options for patients who until now had to live without the prospect of recovery. For example, open surgical procedures can be replaced by minimally invasive surgery. The outcomes of operations can be directly controlled while surgery is still being performed. New types of cancer therapy allow for treatment approaches which are both mild and effective. Powerful software solutions from Imaging & Therapy support the diagnosis and therapy. *www.siemens.com/sr/imaging-therapy-systems* 

### **Clinical Products\***

The products of the Healthcare Clinical Products Division address the largest imaging markets – ultrasound and X-ray. The goal of this newly established Division is to increase Healthcare's market share especially in fast growing markets. www.siemens.com/sr/clinical-products

### Diagnostics\*

Siemens Healthcare Diagnostics offers a comprehensive portfolio of performance-driven systems, unmatched test menu, and IT solutions for the in vitro diagnostic needs of hospital labs, reference labs, physician office labs, and point-of-care testing.

www.siemens.com/sr/diagnostics

### **Customer Solutions\***

Our mission is to accelerate the accurate diagnosis of the most common diseases and establish new worldwide standards of care for their treatment. We leverage our broad portfolio of products and services to create integrated solutions which increase the clinical and economic value of the individual offerings of the healthcare sector. Reflecting the local focus of healthcare delivery, we provide these solutions where they are needed through our global and regional Customer Relationship Management, Customer Service, and healthcare information technology organizations.

www.siemens.com/sr/healthcare-customer-solutions

### Siemens Hearing Instruments\*

Siemens Audiology Solutions contributes to the quality of life of hearing impaired individuals by providing solutions for better hearing and understanding.

www.siemens.com/sr/hearing-instruments

\* Based on the organizational structure effective October 1, 2010.

In addition to the Industry, Energy and Healthcare Sectors, our portfolio includes the equity investments Nokia Siemens Networks and BSH Bosch und Siemens Hausgeräte GmbH.

### Nokia Siemens Networks (NSN)

We're a leading global enabler of telecommunications services. With our focus on innovation and sustainability, we provide a complete portfolio of mobile, fixed and converged network technology as well as professional services, including consulting and systems integration, deployment, maintenance and managed services. Nokia Siemens Networks is one of the largest telecommunications hardware, software and professional services companies in the world. Industry leader in energy efficiency, we're committed to further increasing the energy efficiency of our GSM/EDGE and WCDMA/HSPA base stations by up to 40 percent by 2012, compared to 2007. www.siemens.com/st/nsn

### BSH Bosch und Siemens Hausgeräte GmbH (BSH)

As the world's third-largest appliance maker, we develop and manufacture innovative, extremely energy-efficient household appliances that conserve natural resources and offer unique advantages over the products of our competitors worldwide.

www.siemens.com/sr/bsh

### **Cross-Sector Businesses**

Our Cross-Sector Businesses – Siemens IT Solutions and Services and Financial Services – specialize in solutions for the entire IT service chain and in company financing, respectively.

#### Siemens IT Solutions and Services\*

As a leading European IT service provider with a global presence, we're rigorously oriented toward the specific requirements of the worldwide IT market. Our solutions and services enable customers in both the private and public sectors to create value through IT. From consulting and systems integration to the management of IT infrastructures, we're a singlesource supplier for the entire IT service chain. www.siemens.com/sr/it-solutions

### Financial Services (SFS)

With financing playing an ever-greater role in facilitating investments in energy, industry and healthcare technologies, customized financial solutions are becoming an increasingly vital competitive factor for Siemens – particularly when it comes to acquiring new customers. We provide Siemens and business-to-business customers worldwide with capital and services for infrastructure, equipment and operations. www.siemens.com/sr/finance

\* In the second quarter of fiscal 2011, Atos Origin S.A. signed an agreement to acquire Siemens IT Solutions and Services.

# Our Cross-Sector Services include the office and commercial real estate business of Siemens Real Estate.

### **Siemens Real Estate**

We're responsible for all of Siemens' real estate activities worldwide – managing our company's real estate portfolio, operating its real estate holdings and overseeing their utilization, providing real-estate-related services and implementing all construction projects Siemens-wide. We optimize the resource-use and energy efficiency of buildings with innovative strategies like our Green Building Initiative. www.siemens.com/sr/sre

### Financial calendar<sup>1</sup>

Second-quarter financial report and Semiannual Press Conference	May 4, 2011
Third-quarter financial report	July 28, 2011
Preliminary figures for fiscal 2011/Press conference	Nov. 10, 2011
Annual Shareholders' Meeting for fiscal 2011	Jan. 24, 2012

1 Provisional. Updates will be posted at www.siemens.com/financial-calendar.

### Information resources

### Further information on the contents of this brochure is available at:

Address	Siemens AG
	Wittelsbacherplatz 2
	80333 Munich
	Germany
Phone	+49 89 636-33443 (Media Relations)
	+49 89 636-32474 (Investor Relations)
Fax	+ 49 89 636-30085 (Media Relations)
	+49 89 636-32830 (Investor Relations)
E-mail	press@siemens.com
	investorrelations@siemens.com

Information on research, development and innovation at Siemens is available at www.siemens.com/innovation.

The company publication *Pictures of the Future: The Magazine* for Research and Innovation can be ordered free of charge at www.siemens.com/pof.

The Siemens Annual Report for 2010 can be downloaded in English and German at www.siemens.com/annual-report and www.siemens.com/geschaeftsbericht.

#### Copies of the Sustainability Report are also available from:

E-mail	siemens@bek-gmbh.de
Internet	www.siemens.com/order-sustainabilityreport
Fax	+ 49 7237 1736

#### Siemens employees may obtain copies from: LZF, Fürth-Bislohe

Intranet	https://c4bs.gss.siemens.com
Fax	+ 49 911 654 - 4271
English	Order no. A19100-F-V86-X-7600
German	Order no. A19100-F-V86

Employees should be sure to include their postal address and complete order data (Org-ID and cost center information).

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As of March 15, 2011

