

## Corporate Responsibility Report A Culture of Sustainable Excellence





#### Report scope and profile

This is a report of how responsibly we have performed as a company in the calendar year 2007.

It covers all STMicroelectronics NV's activities and sites, unless otherwise stated. You can find details about ST's structure and countries of operation in the chart on page 1.

For additional information you can look at reports from previous years at http://www.st.com/stonline/company/cr/reports/index.htm.

This year we have chosen to continue to present examples of best practice from sites, regions, product groups and central organizations to illustrate our successes, but also our challenges, in each section of the report. We want to demonstrate the growing company-wide awareness of Corporate Responsibility that our activities reflect.

Each chapter of the report is organized in the same way as last year, with articles, interviews and concrete actions deployed at ST sites at the beginning of the chapter and then a performance overview, which presents detailed results and figures on our Corporate Responsibility performance.

#### **Adherence to GRI and the UN Global Compact**

This report is in accordance with the 2006 Global Reporting Initiative (GRI) G3 Guidelines, with an A+ self-declared rating checked and confirmed by GRI. If G3 indicators are not applicable or relevant to us we explain why we do not report on them either in the text and/or in the indicator index in the html version of this report. We use our own indicators to respond to or to supplement GRI indicators (see below).

As a signatory of the United Nations Global Compact, we also endorse the Global Compact Principles. This report describes actions we have taken to implement these Principles, and serves as our Communication on Progress.

On the flap of the back cover, you will find an index that links the GRI and ST indicators to related information in the report. The link with the UN Global Compact Principles is shown in the html indicator index.

#### **Assurance**

As in previous years, Bureau Veritas Certification has been engaged to provide us assurance services.

All our Social, Health & Safety and Environmental indicators are verified by Bureau Veritas Certification France. For these sections, the audit takes place at two levels in the company. First, the auditor verifies the data collection and consolidation process, as well as the data itself at the corporate level. The auditor then verifies the data at a given local site. Each year a different site is audited – in 2007 it was our Kirkop facility in Malta.

This process helps us to ensure the relevancy and effectiveness of the indicators we use and to support our continuous improvement.

See page 64 for the independent verification statement

#### **Accessibility**

This printed Corporate Responsibility report provides details of STMicroelectronics' Corporate Responsibility performance and shows how our company integrates Sustainable Excellence in its strategy and daily activity. The report is published in English only. It is printed and is also accessible on the web, in html version, and can be downloaded in PDF format at http://www.st.com/stonline/company/cr/reports/index.htm.

#### Materiality

In order to respond to the most material issues in our reporting, we have sought feedback from our stakeholders in a variety of different ways:

- we took into account spontaneous feedback (e-mails, web requests);
- we organized phone interviews with external stakeholders (socially responsible investment (SRI) analysts, civil society organizations, customers, suppliers and academic institutions);
- $\bullet \ \ \text{we organized 'road shows' for specific audiences (SRI \ analysts, environmental \ specialists \ and \ relevant \ media);}$
- we conducted regular tracking of rules and regulations;
- we conducted benchmarking with other companies;
- we participated in multi-stakeholder and business networks, conferences and discussion sessions on key topics relating to our industry;
- $\bullet \ \ \text{we interviewed ST's Vice Presidents involved in the key issues linked to Sustainable Excellence; and }$
- we launched an internal survey, and received feedback from around 75 managers and other employees.

We are aware that the 'disclosure on management approach' required by GRI's G3 Guidelines for each main area of our activity is very important to help readers understand how we manage material issues and potential risks. As our management approach is stable and does not require an annual update, we have published it in detail in the html version of this report only, at the beginning of each performance overview section.

#### **Indicators and use of symbols**

Where relevant, we have used our own company indicators to give a complete and accurate picture of our performance. These are all prefixed 'ST'. We have also identified a number of Key Performance Indicators (KPIs), which are shown as .

A detailed table on the inside back cover provides a summary of the results of all Key Performance Indicators for the current year. There is also a full indicator index in the html version of this report ...

We have used a few symbols to illustrate:

- the level of achievement of our objectives
- () In progress
- Target achieved
- No progress

High-level objectives are all specified on page 10 and are detailed in sub-level objectives in each performance overview section of the report;

- references to the web:
- references to our Environment, Health & Safety Decalogue:

#### Feedback and contact details

We are committed to improving both our Corporate Responsibility performance and the ways we communicate to our stakeholders. We encourage contributions and debate from all stakeholders and welcome feedback on the content and presentation of this report, as well as suggestions for next year.

In order to receive your feedback, we have developed an online form: http://www.st.com/stonline/company/cr/2006/feedback.htm, please do not hesitate to use it.

You can also contact us directly at corporate.responsibility@st.com or contact

Kate Rigge

STMicroelectronics Corporate Headquarters 39, Chemin du Champ-des-Filles – C.P. 21 CH-1228 Geneva – Plan-Les-Ouates Switzerland

# ST at a glance

## ST has two kinds of manufacturing sites: Front-end and Back-end

The Front-end sites produce transistors and integrated circuits on silicon 'wafers' through a series of complex processes that enable the silicon to control and elaborate electronic signals. The thin slices of silicon range from 5 to 12 inches in diameter, with more advanced technology being required to produce the larger diameters.

Back-end sites perform assembly, packaging and testing functions. The individual silicon 'die' or rectangles are cut from the wafers and the die are then sealed with wire connections into the 'package' or box that connects the chips to an electronic device. The chips are then tested to ensure quality and proper performance.

For more information on ST's company profile, see www.st.com/stonline/company/index.htm

Approximately 50,000 employees



\* Overall we have 15 manufacturing sites, but for the purposes of reporting in the sections on health and safety and environment, we only refer to 14 major manufacturing sites (excluding Rennes).

Although reasonable efforts have been made to ensure the consistency of the summary financial information for the year 2007 in this report with ST's financial reporting, reliance should only be placed upon the complete financial reporting contained in ST's Annual Report on Form 20-F for the year ended December 31, 2007, as filed with the SEC on March 3, 2008 which can be found at www.sec.gov.

Some of the statements contained in this report that are not historical facts are statements of future expectations and other forward-looking statements (within the meaning of Section 27A of the Securities Act of 1933 or Section 21E of the Securities Exchange Act of 1934, each as amended) based on management's current views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those in such statements. Certain such forward-looking statements can be identified by the use of forward-looking terminology such as 'believes', 'may', 'will', 'should', 'would be' or 'anticipates' or similar expressions or the negative thereof or or ther variations thereof or comparable terminology, or by discussions of strategy, plans or intentions. Some of the relevant risk factors are described in "Item 3. Key Information—Risk Factors" included in our Annual Report on Form 20-F for the year ended December 31, 2007. We do not intend, and do not assume any obligation, to update any information or forward-looking statements set forth in this report to reflect subsequent events or circumstances.



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Georges Auguste, Executive Vice President, Total Quality and Corporate Responsibility;

Supporting Sustainable Excellence in ST:

Kate Rigge, Corporate Responsibility Director and her team: Karen Duhart, Wendy Hudry and Mélanie Salagnat.

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## Foreword by Carlo Bozotti

CHIEF EXECUTIVE OFFICER



has been a milestone year for ST, as we have celebrated the 20th anniversarv of our company, and our sales passed the US\$10bn mark for the first time. Compared with the other top ten semiconductor companies worldwide, our growth has been faster, and the evolution of our operating profit has been better than the average of the top ten players in the industry.

Last year we confirmed our position as the world's number one supplier in power management and in industrial applications. We are also the world leader in set-top box applications, and we are among the world's top three suppliers in key market segments such as wireless and automotive.

These positive events were overshadowed by a number of macroeconomic challenges that the world is currently facing: recession risks in the US, the turmoil in the global credit markets and the negative impact of the euro-dollar exchange rate, to name a few.

In this difficult environment, and amidst fierce competition, we are maintaining our course and we remain vigilant in the deployment of our key strategies:

- increasing our presence in strategic markets;
- · developing and re-focusing our product portfolio; and
- improving our operational and financial performance.

We also continue to maintain our intense and long-standing focus on Corporate Responsibility, as we always have since the creation of STMicroelectronics. Creating value for our stakeholders - our definition of Sustainable Excellence – is the core of our values. This report demonstrates how we consistently deploy our programs and shows our results in all aspects of Corporate Responsibility. A few of our remarkable achievements include:

- · Our energy consumption per unit has continued to decline and now represents 50% of its 1994 level.
- The deployment of our health plan has been finalized and now offers to each and every ST employee the same access to medical follow-up.
- Over 95% of our employees have been trained in Corporate Responsibility and all our managers have been trained on a specific course on compliance and ethics.
- · A Corporate Ethics Committee was established in July 2007, and a Chief Compliance Officer was appointed in

Looking forward to 2008 and beyond, I am deeply convinced that STMicroelectronics is implementing the right strategies to maintain and reinforce its leadership position in the semiconductor industry. But strategies lead nowhere without the men and women who will deploy and champion them. In the end, what drives a corporation to long-term success is the commitment of its people, and the strength of its shared values. This is what makes the difference between a group of people and a winning team.

We are a winning team.

Carlo Bozotti

President and CEO of STMicroelectronics

This report has been prepared following the GRI G3 Guidelines. It represents a balanced and reasonable presentation of our organization's economic, environmental and social performance. And it demonstrates our commitment to the UN Global Compact, to which we have been a signatory since 2000.

# Message from Alain Dutheil

CHIEF OPERATING OFFICER AND VICE CHAIRMAN OF THE CORPORATE EXECUTIVE COMMITTEE



We explained in last year's report how globalization and the overall economic conditions have pushed semiconductor manufacturers to transfer a significant part of their production lines to low cost areas in order to cope with constant price pressure common to our industry. 2007 was no exception: the evolution of market conditions, exchange rates, and the increasing need for competitiveness have led ST to take some important and drastic decisions regarding its manufacturing infrastructure.

We have announced that we will close our two

manufacturing sites in the United States and one of our Moroccan sites, and transfer most of the corresponding activities to Asia and to subcontractors. The expected result is an improvement of our cost structure thanks to the improved utilization rate of our equipment, and also thanks to the lower labor cost in Asia.

However, such strategic moves always have a very serious impact on our workforce, and just as in the past, we are committed to alleviating the negative consequences for our people as much as we can. This of course must be done

taking into consideration the local economic environment and cultural differences.

In Morocco, we are transferring activities from our older site in Ain Sebâa while increasing the activity of our newer site in Bouskoura, thus minimizing the reduction in headcount. In the US, on top of the appropriate severance packages we are offering retention packages to make sure that our key people do not resign too soon, which would put our production at risk.

There are also consequences for our receiving plants in Asia. Given the consistently high turnover in this region, we must ensure the stability of our experienced employees. Our strategy to face this challenge is to be 'an employer of choice', taking into consideration all the elements that drive employee motivation: competitive salaries to start, but also management style, company values, employee development and satisfaction through training and empowerment, commitment to sustainable development and involvement in local communities.

This approach is not new, and it has been shared of course by all of our sites for many years. Everyone in ST is deeply convinced that this is the winning strategy to develop our people and support their contribution to our long-term performance.

# Significant events 2007

2007 marked the 20th anniversary of STMicroelectronics, formed in 1987 as a result of the merger between SGS Microelettronica and Thomson Semiconducteurs.

ST sites across the world organized events throughout the second half of the year to bring ST employees together to celebrate past successes and focus on the future.



### March

• Since entering the market in 1995, ST reaches the milestone of more than 400 million MPEG-2 and MPEG-4 decoder chips sold. The chips are used in set-top boxes, digital television sets and DVD players.

### May

 STMicroelectronics, Intel and Francisco Partners announce they have entered into a definitive agreement to create a new independent semiconductor company: Numonyx. The new company's strategic focus will be on supplying flash memory solutions for a variety of consumer and industrial devices, including cellular phones, MP3 players, digital cameras, computers and other high-tech equipment.

- ST and the Commissariat à l'Énergie Atomique (CEA) in France sign an agreement to collaborate on the development of new miniaturized energysource solutions. The companies are to create a joint laboratory to target advanced solid-state microbatteries, fuel cells and other new energy generation and storage solutions for low-power and remote applications.
- ST announces the rationalization of three of its manufacturing operations. Over the following two to three years — after a period of product re-qualification at alternative facilities — the company is to wind down operations at its 6-inch (150mm) wafer fabrication plant in Carrollton, Texas, its 8-inch (200mm) factory in Phoenix, Arizona, and its Back-end packaging and test facility in Ain Sebâa, Morocco.

# Setting the **framework** and addressing the **challenges** of Sustainable Excellence

A MESSAGE FROM GEORGES AUGUSTE, EXECUTIVE VICE PRESIDENT, TOTAL QUALITY AND CORPORATE RESPONSIBILITY

Our approach to Corporate Responsibility at ST is based on the Principles for Sustainable Excellence, a short booklet containing both our high-level values (integrity, people and excellence) and our code of conduct (high-level rules and guidelines for responsible business practice). The creation of these Principles two years ago involved many employees and managers, and when we deployed them throughout the company, through information meetings, e-learning, class-room training, or internal communication media, we always met with very strong support and approval from everybody. There is no question that all our colleagues approve, from a personal standpoint.

However, during these discussions and presentations, many colleagues brought to our attention what we called 'dilemmas' or situations where what we do is not totally aligned with our Principles.

This is not a surprise; high-level values and actual practices are two distinct worlds. The mechanisms of the 'real world', in particular the economic mechanisms, are not automatically derived from ethics and values. If a decision is morally good, it is not necessarily economically sound. Values will remain nice but useless words, unless they are translated into policies and processes that will make the fundamental link between the two worlds. Ethics drive policies, which drive operations.

This is the essence of our management system for Corporate Responsibility, which ensures that all aspects of Sustainable Excellence are integrated into relevant existing systems, including those for labor and ethics. Of course, as we do for other management systems such as quality, we have integrated a continuous improvement loop, based on the definition of key performance indicators, the periodic evaluation of actual results compared to our targets, and the implementation of appropriate corrective actions.

Our Sustainable Excellence approach has its roots in ST's history, and we have learned a lot as we were progressing. Today, we are facing two major challenges:

- The ever-increasing expectations of society in general, and of our customers in particular: we live in a risk-averse society, and we are expected to control not only our own activities but the supply chain upstream as well. While we understand and totally support the approach, we must ensure that we strike the right balance between controls and operational effective-
- The link between ethics and operations is not always simple and straightforward: it takes a lot of work to design the processes and the systems to 'lock' the two worlds of high-level values and actual practices together, but this work is necessary to build robust management



We still have much to do, but we are proud of what we have accomplished so far, and we are glad and encouraged to see that our society has reached a turning point where the need for Corporate Responsibility is no longer questioned. Being responsible is a matter of personal dignity, and it is a prerequisite for doing sustainable business.

Principles for Sustainable Excellence: www.st.com/ stonline/company/cr/2006/social/pdf/principles.pdf



### July

• ST and IBM sign an agreement to collaborate during 2008-2012 on the development of nextgeneration process technology. This follows the decision earlier in the year by NXP and Freescale not to continue in the Crolles2 Alliance.

### August

• ST and Nokia sign a multi-faceted agreement to co-operate more closely in developing 3G technology. As part of the agreement, 185 Nokia engineers join ST in Finland and the United Kingdom (partnership effective November 2007).

#### October

• ST receives the Best Innovator 2007 award, which is nominated jointly by management and strategy consulting firm AT Kearney and French business daily

#### November

- ST lays the foundation stone at the site of its future chip packaging and test facility in Longgang, Guangdong Province, China.
- Francesca Illuzzi, an ST employee based in Agrate, Italy, is part of the Intergovernmental Panel on Climate Change (IPCC) team that is the joint winner of the Nobel Peace Prize with former US Vice President Al Gore. Francesca is the co-writer of the chapter titled "The Electronic Industry" in the IPCC's "Guidelines for National Greenhouse Gas Inventories".



### December

- To strengthen its digital TV product portfolio, ST makes an offer to acquire Genesis Microchip, a leading player in digital TV and display technology.
- A successful OHSAS 18001 certification audit is carried out at ST's Greater Noida site in India, complementing all of ST's already-certified manufacturing sites and major non-manufacturing sites.

# Performance versus objectives in 2007







Company	Create awareness of Corporate Responsibility throughout the company	p. 11	0
	Redesign the framework for implementing company values and Principles	p. 5, 11,12	0
	Ensure compliance of management population with rules for Integrity	p. 13, 14	0
	Ensure a robust link between corporate and local governance structures	p. 12, 14, 15	()
			100
Economic	Satisfy shareholder expectations through financial and non-financial performance	p. 18, 19	0
	Create economic value for stakeholders	p. 20	0
	Create the conditions for sustainable innovation	p. 21	0
Social	Support the company in adapting to its surrounding dynamic context	p. 31	()
	<ul> <li>Ensure dynamic career progression, life-long learning and employability to meet employee and company needs</li> </ul>	p. 33	0
	Ensure employee empowerment and engagement	p. 34	0
	Ensure diversity and equal opportunities	p. 35	0
	Proceed to deeper integration of human rights issues in and beyond ST	p. 36	()
	Engage proactively with local community and society to create mutual value	p. 37	0
Health & Safety	Ensure a safe and healthy workplace	p. 40	0
,	Contribute to employee health beyond the workplace	p. 40	0
Environment	Maintain top class management systems for environment	p. 46	0
	Contribute to company efficiency and financial performance	p. 47	0
	Continuously improve our eco-footprint according to our Decalogue targets	p. 48 to 50	0
	Progressively achieve carbon neutrality	p. 51	0
	Anticipate and respond to customer and legislative requirements for the environment	p. 46, 61	0
Product	- Comply with our Principles and values to develop responsible products that contribute to society	p. 52 to 57	0
Responsibility	Proactively comply with environmental regulations and customer requests when managing chemical product and process quality	p. 57	0
	Continuously reinforce our product and process quality	p. 57	0
	Focus on designing eco-efficiency products	p. 57	0
Supply chain	Continuously aim to satisfy and exceed our customers' Corporate Responsibility requirements	p. 61	0
	Achieve efficient and socially and environmentally beneficial partnerships with our suppliers and subcontractors.	p. 62	0
	and subcontractors  • Actively contribute to the EICC initiative by supporting our suppliers and subcontractors	·	0
	in reaching compliance	p. 63	12

You will find further details on these objectives in each specific section of the report in the performance overview part. Each objective is detailed in sub-level objectives with the results and level of performance achieved.

## Looking forward to 2008...and beyond

In 2007 we took the opportunity of our 20<sup>th</sup> anniversary to launch the 'Vision 2012' process, which involved around 400 top managers preparing the strategy to achieve our long-term goals.

#### **Our Vision 2012 exercise**

ST has undertaken a Vision process three times since the company's creation in 1987. The process starts from the broad directions and goals set by the CEO, and its purpose is to identify the strategies and programs that are necessary to reach these targets. For the Vision 2012 exercise, 22 work groups were formed, each led by a Corporate Vice President and focusing on a particular topic – for example market share, product innovation or Corporate Responsibility. The process ended in November 2007 with a three-day session where the groups finalized their proposals and made their presentations to the CEO and the rest of their colleagues.

As well as clarifying the company's vision and strategy, this exercise has the benefit of creating a strong feeling of team spirit, as managers are able to discuss the opportunities and challenges facing the company, and potential solutions, openly and in an informal, non-hierarchical, setting. These managers are also in a position to cascade the same messages to the rest of the company.

So what is our vision and strategy for the coming years and what challenges do we face? Below is a summary.

#### **Our vision**

Our aim is to be the undisputed leader in multimedia convergence and power applications, dedicating significant resources to product innovation and increasingly becoming a solution provider.

#### **Our strengths**

 We are a pioneer and leader in System-on-Chip solutions, and we have a very diverse portfolio focusing on high-growth applications and market segments.

- We enjoy a very solid customer base having built strong partnerships over the past 20 years. Additionally, we continue to develop strategic alliances with new world-class customers.
- We have leading technologies, powerful intellectual property and a wide-ranging patent portfolio.
- · Our financial position is very strong.
- Our management team is experienced, motivated and cohesive.
- We have developed a winning corporate culture committed to Sustainable Excellence.

#### The semiconductor market background

Over the past few years, the semiconductor market has evolved significantly and microelectronics is becoming a mature industry. Instead of the brilliant double-digit growth rates of the 1990s, we are heading for a more reasonable mid-single digit annual growth rate over the next few years. The main driver of the growth is now the strong development of wireless communication, and the convergence between wireless, computer and consumer applications.

Another key factor is the ever-increasing importance of Asian countries. Their electronics industry – our customer base – is developing at an incredible pace.

Finally, there is the growing importance of wafer foundries. These now represent about 20% of worldwide semiconductor production, and provide easy access to state-of-the-art technologies that 'fabless' companies can use without having to invest heavily in manufacturing facilities or in R&D.

#### The worldwide background

Besides the issues highlighted above, three major worldwide trends also need to be taken into consideration

- Climate change: there is no doubt that current economic development is not sustainable and must be addressed by society as a whole.
- The global financial system is at a critical point, with recession risks in the US, turmoil in the global credit markets and challenging currency fluctuations.
- The globalization process has a positive longterm impact on wealth creation and sociopolitical balance, but the transitional phases must be managed very carefully to establish a level playing field.

#### **Our strategy**

We aim to take advantage of positive changes in the areas where we are strong, and take all necessary measures in the areas where we face challenges. We are focusing on the following key elements:



- We need a broad and balanced market exposure, with a diversified product portfolio .
- Our product portfolio is being refocused. We are deconsolidating our Flash memory activities through the creation of Numonyx. Also, we have acquired Genesis, a leader in digital TV, and we have strengthened our relationship with Nokia.

#### For more details see page 24

- We are reinforcing our historical strategic alliances, but are also developing new major key accounts and maintaining our presence in the mass market.
- While we will remain an integrated device manufacturing company, we will streamline our manufacturing capacity and develop relationships with external subcontractors. This will reduce our capital intensity and improve our return on capital employed.
- We remain committed to a strategy of alliances that reinforce co-operation in technology development as part of this we have joined the IBM Consortium. This allows us to move resources from process technology R&D to product and system R&D.
- We will intensify our efforts to develop our market share in Asia-Pacific in general, and Japan and China in particular.
- We will maintain our Corporate Responsibility efforts, developing responsible product applications (in eco-efficiency or health, for example) as an integral aspect of our strategy. We will continue to improve control of our supply chain and maintain our focus on environment, health and all other aspects of Sustainable Excellence.

## Stakeholders engagement

Working with and for our stakeholders is deeply rooted in our company culture of Sustainable Excellence and is an integral part of the normal course of our business. Global results of engagement are rather difficult to show as many initiatives are undertaken at a local level and are embedded in business projects and practice. We believe that the best way to demonstrate how we engage with

stakeholders is to illustrate examples of our commitment and activities and the positive impact that they can have.

This section gives a few specific examples of our stakeholder relationships, but our engagement with different stakeholders is also reflected throughout this report. An integral part of our daily operations involves interacting with employees, employee representatives,

customers, suppliers/subcontractors, local communities, local authorities, national and transnational government, the business community, shareholders, the academic community, civil society and the media.

More information on how we interact with stakeholders is also provided in our Readers' Guide on the inside front cover and page 1, in the materiality section

## How do we manage customer relationships?

INTERVIEW WITH ENRICO VILLA, EXECUTIVE VICE PRESIDENT, SALES & MARKETING



Customers are, of course, a key stakeholder for ST. We communicate with them on a regular basis in an interactive way, and top management is included in this process.

Enrico Villa, Executive Vice President Sales & Marketing, travels extensively to promote ST's sales and marketing strategy, generating potential market opportunities and partnerships with customers and distributors.

We caught up with him at United Kingdom Technology Day, a sustainability event held in Birmingham, in November 2007, and asked him a few questions.

#### How do you effectively reinforce customer relationships?

Customers determine the success or failure of any supplier: by selecting a given product or service or by limiting opportunities for business. Their choice is the real driver for innovation and market growth.

We like to examine with our customers what makes a proposal attractive for them – in other words, a winning solution for both sides. We have to focus together on partnerships and innovation, not solely on short-term consequences or benefits.

The TQM (Total Quality Management) culture we introduced at ST in the early 1990s has customer satisfaction as its main objective and focus

Today, at ST we work in a culture of Sustainable Excellence. I am confident that Corporate Responsibility will increasingly complement marketing issues to qualify the performance of our products.

The key things that set ST ahead of its competitors are innovation and performance to meet or exceed customers' expectations – including for sustainable products such as those showcased in Birmingham. This is in addition to the need for service, quality and price competitiveness.

I am convinced that, more and more, customers will also embed our culture of Sustainable Excellence in their expectations, including through close and innovative collaboration on key areas of activity.

An excellent example of this is the agreement reached with Nokia to cooperate in Research and Development on new platforms for the next generation of wireless cellular technology. Such a strategic partnership between us and a key customer is an excellent approach to pool technology and systems so that we can be competitive and first on the market.

We are working in many strategic areas at the moment that will improve our competitiveness and create new product opportunities, innovation, service, quality and business channels.

2007 has been the year of formalization of Vision 2012 for ST. We want to create a new ST and, of course, one of our major focus points will be to concentrate on advanced technology and innovation as well as responsible product applications and business practices.

For more on Vision 2012, see page 7



## UK Technology Day a sustainable event

Organized by Ollie Althorpe, Managing Director UK & Ireland, and his team, United Kingdom Tech-

section of this report. These include eco-efficient

# Engaging with our stakeholders in France

INTERVIEW WITH JEAN-CLAUDE NATAF, DIRECTOR OF THE SCS COMPETITIVENESS CLUSTER



The Secured Communicating Solutions (SCS) Competitiveness Cluster is formally recognized by the French government and is designed to bring together four areas of expertise considered to be important for the national economy: semiconductors, telecommunications, software and multimedia. Significant financial subsidies have been dedicated to this combination of human and technical resources involving many different stakeholders: large industrial companies, small and medium enterprises (SME), academia, researchers, local authorities and associations

This cooperation is even taking on an international dimension with the recent partnerships launched with a Tunisian ICT consortium and with an Italian cluster. Other European and Mediterranean countries may also be involved in the coming years.

The synergies resulting from this cluster have significant and diverse positive impacts.

#### **Economic impact**

• The development of SMEs, thanks to support of innovation and sustainable development strategies.

Since 2005, ST has been deeply involved in the Secured Communicating Solutions Competitiveness Cluster

- Sales opportunities for the SCS members thanks to innovation.
- Increased economic growth in the region.

#### **Social impact**

- The creation of jobs, now and in the future.
- Expertise, ideas and knowledge-sharing among all the actors involved.

#### **Societal impact**

- Innovation aimed at improving people's health, disabled people's quality of life, security of the identity of individuals, etc.
- Benefits for local inhabitants induced by economic growth for the region, departments and towns hosting the projects.
- · Projects linked to 'care at home' for the elderly.

#### **Environmental impact**

• Innovation aimed at preventing environmental risks, better monitoring of the quality of our environment, reducing the energy consumption of some products, etc.

For more information on the SCS Cluster, see pages 52 and 53

## The SCS pole represents

## Engaging with our stakeholders in India

ST develops partnerships with the two leading Indian **Technology Institutes** 

In February 2007, the Italian Prime Minister, Romano Prodi, was in India to meet the Minister of Commerce and Industry, Kamal Nath. On that occasion ST signed a Memorandum of Under-standing with two Indian Technology Institutes, BITS Pilani and IIT Delhi.

The two institutes are setting up joint state-ofthe-art research and innovation laboratories by combining ST's skills and expertise with the educational and research expertise of the respective institutes. ST will equip the labs at these institutes with the necessary hardware, software tools, reference boards and technology parameters. The students will benefit from working with advanced and challenging technology, which will help with their professional development. While ST continues to focus on value creation in its own domain, the academic stakeholders will work, within their own structures, on research projects jointly defined with ST



## A new appointment for Corporate Governance

INTERVIEW WITH ALISIA GRENVILLE, CORPORATE VICE PRESIDENT, CHIEF COMPLIANCE OFFICER, EXECUTIVE SECRETARY TO THE SUPERVISORY BOARD



#### You have recently been appointed Corporate Vice President. What is your vision of **Corporate Governance in general?**

First of all, thank you for recognizing my appointment. I think that corporate governance has different meanings for different companies, depending on the company's historical make-up and culture. The classical meaning of corporate governance and the one that I espouse is simply the way in which companies are governed. However, in big companies, corporate governance is also concerned with how the company is structured and controlled internally, and how power is exercised by different groups, for example the board of directors and the shareholders, to ensure that the objectives of the company are achieved, both lawfully and ethically.

#### Corporate Governance is a critical area of activity in most big companies today. How would you explain this?

Indeed, Corporate Governance has been more visible over the last decade as concerns about the way companies are organized and controlled have grown out of a myriad of high-profile cases both in Europe and in the US regarding financial reporting irregularities. And, of course, as shareholders become more assertive of their rights, they start to question and demand more of the custodians and guardians that they have entrusted with their investments.

### "My mission at ST is threefold, as I have a governance role, a compliance role and an internal audit role."

#### Please describe your new mission at ST.

Let's start with the audit role. Following my appointment, the Internal Audit team is now under the domain of the Compliance Organization. Ensuring the integrity of our financial reporting remains the principal focus of the group's mandate. That said, I am going to take this opportunity to 're-brand' the team, focusing on a client-service oriented, total customer value approach, whereby our internal business partners can rely on operational recommendations of the audit team to mitigate both known and unknown risks. A more proactive approach is going to be on offer.

The governance role incorporates the Executive Secretary role; in fact, this is a shared role. The Supervisory Board Secretariat comprises three parties: a Secretary and Assistant Secretary appointed by the Supervisory Board, upon the proposal of our main shareholder, ST Holding, and an Executive Secretary appointed upon the proposal of the Managing Board. The role of the Secretariat is to act as a liaison between the Managing and Supervisory Boards, to ensure smooth decision making and implementation processes. I see my role to ensure better coordination and transparency with the overall Secretariat so that management and Supervisory Board relations remain in good shape.

Finally, compliance: this is the area of my activity that, in my mind, is more straightforward. Over the last decade the role of the compliance office has evolved dramatically. Compliance is no longer a back-office function with little visibility. The role of compliance is to be the conscience of the company, promoting and encouraging an ethical culture with sustainable values and fundamental principles. My role in compliance is to ensure that ethics training and development continue to be deployed throughout the organization at all levels. As Chairwoman of the Ethics Committee, it is incumbent upon me and all of the members to set the tone regarding consistent disciplinary actions to be taken in the event of wrongdoing, and to provide guidance and instructions on different topics.

#### From what you have already seen deployed in ST, what will be your first actions and priorities?

Again, as corporate governance is simply about systems that control and run companies, I think that it is primarily important to understand thoroughly what systems are currently in place here at ST. That has been my task so far. In the short term, I can say that ST has many leading systems; however, as external pressures dictate, even leading systems need upgrades, and that is my focus - to be leading and not lagging. Employing best practice in the area of governance and compliance is my primary objective in keeping, of course, with the strategic objectives and directives defined by our company CEO. Carlo Bozotti.

#### What are the challenges that you feel you will have to face in this new task?

I think that in the context of Carlo Bozotti's emphasis on our culture for Sustainable Excellence, I would like to add another dimension, which I am calling sustainable change. I define this as requiring different kinds of people to come together to learn from one another and to embrace a common cause. As we all know, our industry is evolving and with evolution come opportunities to grow in new markets with new products and innovations. The challenge will be to help management and employees, in general, embrace that change.

It is also very important that we focus our customers on this internal phenomenon as we continue to build their trust and their business. Ultimately, companies must focus on customers, as only customers can buy a company's product. Without revenue there is no business and without revenue growth a business is lagging, not leading. And where and how does governance fit in? Well, investors do not invest in companies that customers do not buy from. So having the right systems in place to create value for all our stakeholders is key to maintaining a healthy sustainable business.

#### What are your objectives for 2008?

I believe that 2008 will be a busy year as I focus on putting together an organization that takes four factors into consideration to measure its success: finance, processes, people and customers. My objectives are based on ensuring that all these factors align with the overall strategic goals of the company and to work hard at making sure that they are all achieved.

# Taking a structured, cultural approach to embedding Corporate Responsibility

Deployment of Sustainable Excellence at a glance | SO2 | HR3 |



• Excellence • People • Integrity

Awareness

Principles for Sustainable Excellence

Assess

Sustain

Spread Awareness on CR to all employees

94% of all ST employees trained (over 48,000 people)

**Principles for Sustainable Excellence** 

Launched and communicated world wide

Assess: risk identification and plan actions

29 sites did the Principles gap analysis workshop 100% major sites completed the EICC Self Assessement Questionnaire

Sustain the mindset and actions

Principles Compliance training: 88% eligible population trained

(status at end 2007)

GOVERNANCE 'INFRASTRUCTURE' OF SE COMMITTEES

Following the launch of the Sustainable Excellence program in 2006, a four-step process has been used to re-define ST's approach to Corporate Responsibility and deepen the integration of responsible business practice in every aspect of the company's performance.

#### From TOM to Sustainable Excellence

Corporate Responsibility is not new for ST: Total Quality Management (TQM) was the approach that characterized the company's culture over the first 17 years of its existence and it serves today as the foundation of our cultural evolution to Sustainable Excellence. Having been through an entire cycle of designing and deploying a cultural framework to guide employee actions and behavior, the Company as a whole is familiar with and highly responsive to the process.

#### The four steps of deployment

As the chart above shows, we have taken a systematic approach to deploying Sustainable Excellence, starting with raising awareness

among all our employees about Corporate Responsibility in today's business world through an e-learning course that prepared employees for the Principles for Sustainable Excellence, our new code of conduct. This awareness training course was launched in 2006 and completed in 2007; this is the first time in ST's history that virtually all of the company's 50,000 employees have been trained by e-learning, a process completed in just over one year.

The Principles were then launched, in early 2007, and communicated to all employees through a variety of different communication channels and methods. This code of conduct is a key document for ST, as it serves as the overall reference framework for Corporate Responsibility.

In 2007, steps three and four were also initiated. The assessment phase took a risk-and-opportunities management approach to compliance with the Principles for Sustainable Excellence, involving a gap analysis workshop for local top management in all manufacturing sites and many medium and smaller sites across the world. In addition to this, management at all manufacturing sites completed the Electronic Industry Citizenship Coalition (EICC) Self Assessment Questionnaire, an industry tool that allows companies to identify areas for improvement in management systems for environment, health and safety, labor and ethics.

For more information on the Principles gap analysis workshops see page 12

For more information on our internal deployment of the EICC, see page 58

In order to sustain the mindset and actions initiated by the previous steps, a new e-learning course has been developed and launched for around 10,000 managers and employees in critical functions. This course takes a deeper look at the Principles for Sustainable Excellence and how to ensure compliance through decisionmaking and actions in daily business life.

For more information on the Principles Compliance training, see page 13

The entire deployment process is supported by our Sustainable Excellence governance structure, which consists of different committees with the roles of implementing Corporate Responsibility or overseeing its implementation within overall operational activity.

Sustainable Excellence is the evolution of our TQM approach. It is our culture for achieving excellence throughout the company. By responding to our stakeholders' needs in the short and long term and embedding Corporate company 'sustainable' – successful to contribute to sustainable

# Practicing risk management and continuous improvement

In 2007, 29 ST sites held a workshop on our code of conduct, the Principles for Sustainable Excellence, to understand how well we live our values and principles in practice, and to identify potential risks and opportunities for improvement.

Following the launch of the Principles for Sustainable Excellence across the company in early 2007, a workshop was designed to support local top management in understanding how well they and the company as a whole are adhering to its code of conduct. A half or full day session was facilitated by the Corporate Responsibility department or other relevant Sustainable Excellence (SE) sponsors, during which members of the local SE steering committees and other key managers and employees would focus on each chapter of the Principles – Integrity, People and Excellence - to identify areas of potential risk for the company and propose actions to address the risk and improve performance.

The risks identified were split into two categories: those that require company-level action and those that depend primarily on local site actions. Local sites were also asked to identify best practice solutions to challenges for crossfertilization purposes. A company 'risk grid' was compiled based on the results of all sites in order to view the most recurrent and prominent risks and prioritize actions. These results were shared with ST's CEO and other members of top management, and with all members of the SE Council and local committees.

Drawing on the results of this gap analysis exercise and other activities, a set of high-level directions for 2008 were defined and communicated to the SE Council. The members of this council are responsible for implementing Corporate Responsibility across the company. These directions will serve as the framework within which local sites and organizations will set their 2008 objectives.

#### High-level directions for ST sites and organizations in 2008:

#### **Integrity**

- · Complete the Principles Compliance training that was launched in 2007, for eligible mana gers and employees of critical functions.
- Worldwide use of our internal 'e-Signature' tool to record managers' signature of com pliance with our Business Conduct and Ethics
- · Completion of actions defined to address key gaps versus the Principles.

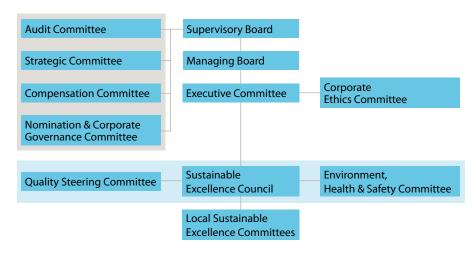
#### People

• Deployment of non-compliance reporting process and continuous improvement of labor/ethical management systems using EICC Self Assessment Questionnaire.

- · Employee empowerment and recognition of achievement.
- Equal opportunities programs.

- · Communication of environmental programs and results.
- Tracking and communication of responsible product applications.
- · Deployment of EICC to suppliers.

For more information on the Ethics Committee,



## Deploying the new Compliance Training course

INTERVIEW WITH JAMES E SANDERS, BUSINESS EXCELLENCE PROGRAM MANAGER, PHOENIX, US

Following the deployment of the Corporate Responsibility (CR) Awareness program in 2006 and 2007, employees around the world have deepened their understanding of ST's code of conduct, the Principles for Sustainable Excellence, through a compliance training course that focuses on how to put these values into practice in their everyday work.

We interviewed James Sanders, a member of the team responsible for the deployment of both training courses in the US region, to understand how this second training program was received.

#### After the CR Awareness program, what is your experience of the Compliance

The Compliance Training provides a practical follow-on to the CR Awareness training by building on the concepts of Sustainable Excellence and by illustrating our Principles with concrete real-world examples. The certification step required at the end of the course forced reflection on just what the Principles mean and what is expected of each of us as employees of ST.

#### What challenges did you face in the deployment of the program?

The main challenge was to maintain consistency with what had enabled our success in the past. We were aware that our employees here in the US needed to understand the link between our past and the present and future challenges of the company, and so we contributed to the clarification of these key messages in the development of both courses.

The two training sessions clearly demonstrate that we are not changing course, but merely evolving our company culture. The CR Awareness training made the link between our historical Total Quality Management (TQM) initiative and the evolution to Sustainable Excellence in order to meet the demands of our stakeholders today, who are affected by wider social, ethical and environmental considerations.

#### What were the main highlights of both programs?

The CR Awareness training introduced employees to the concepts of Corporate Responsibility and Sustainable Development (including how CR is critical to our short and long-term success), our different stakeholders' needs and perspectives and the kinds of challenges we can all face in applying these concepts to business practice. It also introduced our new code of conduct, helping employees understand why it is so important in today's business world.

The Compliance Training shows in more detail the codification of our values and business principles into a single document, the Principles for Sustainable Excellence, which is consistent with our original Shared Values and Guiding Principles.

The content of the Principles is illustrated with real-world examples to emphasize how they should govern our business interactions. The course also makes the link to key internal policies, which give detailed information about the rules and guidelines to be followed; and it

explains to employees how to communicate any concern they may have about the potential violation of the Principles, including whom to contact for guidance and support.

The certification by each individual that we all understand and will comply with both these Principles and the Business Conduct and Ethics Policy helps to solidify our teamwork and mutual commitment to the success of the company and its ability to create value for its different stakeholders.

#### What feedback did you get from managers and employees?

Many employees commented that they appreciate the leadership role ST is taking in the area of Sustainable Excellence. Many of our key customers are involved in the same activity, so it is useful to be able to demonstrate that we are also addressing these issues and supporting our employees in applying our code of conduct

The Principles Compliance Training Course was deployed to managers Audit, Finance, Human Resources, Logistics and some Back-end

By the end of 2007, 88% of the eligible population had been trained (8,691 employees). | S03 | C STS01 |







# Non-compliance reporting and the launch of our new Ethics Committee

When launching our Principles for Sustainable Excellence, the top-level reference for guiding our behavior and decision-making in 2006, we also launched an additional channel for reporting potential cases of non-compliance to the highest level of the company.

#### Non-compliance reporting channels

A third-party reporting channel for all cases linked to financial and auditing issues had already been in place for several years. This line is managed by an external ombudsman who was selected, with the approval of the ST Supervisory Board following the proposal of its Audit Committee, from among several qualified external providers of ethical services.

The ombudsman has been appointed to collect all complaints, whatever their source, regarding accounting, internal accounting controls or auditing matters, as well as the confidential, anonymous submission by ST employees of concerns regarding questionable accounting or auditing matters as required by the Exchange Act. Contact details – including fax, e-mail and a toll-free number – for the ombudsman are available on the ST intranet site under the Corporate Governance section.

In February 2007 an additional reporting channel was created allowing ST employees to alert top management directly of potential cases of non-compliance with the Principles for Sustainable Excellence that could not be solved at the level of their management, site or organization.

Employees can use this channel through a dedicated e-mail address that links directly to our new Ethics Committee, which was created in 2007. If reported issues are relative to auditing, accounting or financial matters, they are automatically communicated to the external ombudsman and the Audit Committee.

Details of these reporting channels were communicated to employees and managers through a mandatory e-learning course on the Principles for Sustainable Excellence launched in 2007.

### For more details see page 13

#### The new Ethics Commitee

In 2007, the Ethics Committee received four cases relating to harassment, security and human resources management: | SO4 | HR4 |

- · three have been dealt with, solved and closed; and
- one case is still ongoing, managed by our Security department.

We do not yet have data for cases managed at a local level, but we should be in a position to disclose this information in the next edition of this report.

In addition to managing complaints received through this new e-mail reporting line and through other reporting channels (e.g. from local sites), the mission of our new Ethics Committee is to:

- · provide advice to ST employees and managers about the Principles for Sustainable Excellence:
- approve customer requirements in the area of ethics: and
- provide advice to top management about the evolution of policies, procedures and the Principles for Sustainable Excellence, taking into consideration the evolving expectations of society and of our stakeholders.

In 2007, the Ethics Committee published three position papers, which were sent to Site Managers, Human Resources Managers and Sustainable Excellence Contacts and Champions, to provide more details about:

- · our position on gifts;
- our position on the non-inclusion of our products in weapons; and
- the classification of complaints coming from the reporting channels.

## Members of the new Ethics Committee

**Patrice Chastagner**, Corporate Vice

**Bob Krysiak**, Corporate Vice President,

**Giordano Zanetti**, Group Vice

**Alisia Grenville** as Corporate Vice



# Implementing the Corporate Social Policy locally

INTERVIEW WITH GIORGIO BETTOSCHI, COMPENSATION & HUMAN RESOURCES MANAGEMENT SYSTEMS DIRECTOR, ITALY



In 2006 we reported on the publication of our new Social Policy – Sustainable Excellence in Human Resources Management that covers human rights and topics relating to employee well-being and development. The Policy also covers the formalization of a company-wide process for the reporting of potential cases of non-compliance relating to the 'People' section of our Principles for Sustainable Excellence.

The Social Policy requires local organizations to have a Local Operating Procedure (LOP) covering the content of the policy, including non-compliance reporting. In 2007 we launched the process to ensure that all ST regions and countries have this LOP in place, starting with Italy as a pilot country.

In Italy, the LOP for managing reporting channels was prepared by the Human Resources (HR) department, involving staff from the Site Management function and assuring a final check by both Legal and Internal Auditing departments.

We spoke to Giorgio Bettoschi from the HR department to understand how they went about this project and what kind of challenges they faced.

At the same time as writing the new LOP, you also had to think about how the reporting process would work in practice from start to finish. How did you manage to define the relevant contacts, resources and investigation process?

We sat down and thought carefully about the implications of each stage of the process, from how the employees would know about the process to follow when reporting a case to how that case would be received, evaluated and, if necessary, investigated and resolved.

Of course, the HR department has dealt with this kind of issue in the past, but we understood that this was an opportunity to formalize the process within a company-wide framework and to ensure that our activities are as consistent and appropriate as they possibly can be. We worked closely with members of our local Sustainable Excellence Steering Committee during this reflection and design process to come up with the best solution for our local context.

According to our new procedure, to report on potential violations employees can use a dedicated e-mail address or, if they prefer, they can send a letter by standard mail, in both cases giving detailed and concrete information about the situation they have identified or experienced that they feel is in contradiction with our Principles.

In both cases, the communication is received directly by the Italian HR department, which is responsible for recording the details of the case and evaluating and proposing the action to be taken. This can include a formal investigation and consequent follow-up action.

However, we felt that to ensure the robustness and effectiveness of the process, we needed another layer of supervision and we were inspired by the recent creation of the Corporate Ethics Committee. We decided to create two local Ethics Committees for Italy, one for continental Italy sites – including our production site in Agrate, and other non-production sites in Castelletto, Naples, Aosta and Lecce – and one for our second production site in Catania.

Possible investigations resulting from the decisions made by these local Ethics Committees will be managed by site or HR representatives, with the involvement, when needed, of the top managers of the relevant organization and/or corporate functions.

To know more about the New Ethics Committee and the reporting for non-compliance, see page 14

#### What was the main challenge you faced in implementing this LOP?

A key element was to make it clear to all employees that the reporting of any possible violation of our Principles for Sustainable Excellence is to be considered an important duty of each individual and will obviously not have any negative impact from a professional point of view.

At the same time, we have to make sure that the system is not abused in any way and that employees understand that there must be no inappropriate use of the reporting channels. These are the messages that are clearly conveyed in the new Principles Compliance training course for managers launched in 2007, but we need to make sure they are fully understood locally.

To know more about the Compliance Training course, see page 13

In addition to this, we need to make sure that people understand the process when a case needs to be taken to a higher level. The Social Policy makes it clear that wherever possible, a case should be resolved at the lowest possible level, starting with the direct line manager and only escalating to the HR department/ site management level or company level if the problem could not be resolved.

To address these issues, we communicated directly on the new LOP to managers, who are in charge of its diffusion inside all organizations present in Italian sites. We will need to continue the process of raising their awareness and improving their understanding of how the procedure works in practice and what their responsibilities are. For employees generally, we are preparing an article that will be published in our local Italian newsletter, which is distributed to the entire population of ST Italy.

Another potentially challenging area is the recording of cases. As quite a few cases tend to be resolved informally and at lower levels, it is hard to know at what point a case should be formally documented, and by whom - especially if a case is identified and resolved by a line

We are still at an early stage of our implementation and so I can imagine that we will discover the need for additional communication and other kinds of activities to support the integration of this new procedure in our daily practices. We will learn as we go along and share our experiences with other ST organizations and sites around the world.

# Future opportunities and challenges in electronics

INTERVIEW WITH ANDREA CUOMO, EXECUTIVE VICE PRESIDENT, GENERAL MANAGER, SALES & MARKETING, EUROPE



# Semiconductor market cycles are quite unpredictable. With such complexity in play how can we plan a long-term strategy?

In fact, long-term trends are quite clear to us and they are always easier to plan for. That has always been the case. For example, we know that there will be a big boom in the mobile data market, and the use of wireless internet (BlackBerry first) is already a clear sign; the key issue is to know precisely when it will happen across the board.

So the difficulty is not to spot the trend, but to plan for the impact on the short and medium term. Too many variables come into the picture and we often make mistakes in evaluating time.

# In electronics, as in many sectors, companies are focusing increasingly on sustainability. Can you explain how the culture of Sustainable Excellence is integrated in ST's business strategy?

When I started working at ST we understood that the price of energy would increase dramatically. So with our design engineers we decided to work on the reduction of the power consumption of our motor drivers. One watt was already close to a cost tag of half a dollar for the customer, therefore saving three to four watts allowed us to increase our margins while reducing the overall cost of our customer's application.

There is a growing market for sustainable products. For the time being, I don't see the same trend in the purchasing behavior of the final consumer. With the exception of the automotive sector, until now I have not seen a brand communicating in a consistent and strong way on power consumption. The final consumer is more interested in the design or the price of the mobile phone or the LCD screen he wishes to buy than on its power consumption. This may change in future, but I do not yet see consumers (like each of us) factoring power consumption into their personal purchasing decisions.

Of course, our intention – embedded in our current strategy – is to position ourselves in the market in advance of this important mindset evolution.

# One of the 'megatrends' you see is 'the return to a better environmental balance'. How can ST contribute to such a worldwide priority?

Alternative energy represents a huge trend coming up with, for example, electric transportation solutions, anti-pollution devices, etc. ST can really contribute by creating innovative products in this area – and we are already doing so.

"I believe energy will be one of the largest markets for the semiconductor industry, including clean energy, together with the health sector."

# From your point of view, we have three challenges: 'consumerization', convergence and consolidation. Could you help us understand these better and explain how ST is preparing to face them?

First, on 'consumerization', the market is now driven by consumers, so it becomes harder to plan ahead. As an industrial company, we are making our future by providing devices with better prices and better performance, but in the end the consumer chooses which product he will buy. And often it is unpredictable.

Second, convergence means that people are more and more 'equipped' with electronic features and they want their appliances to communicate with each other and to access any data anywhere. Our technologies have to be able to do everything from one single device.

And concerning consolidation, the market is evolving and we feel that there will soon be only a few large platform providers; probably two to four major suppliers in each market segment. The main reason for this is that in our platform business we provide full system solutions and to be able to enjoy sustainable returns on our Research and Development effort, we need to win significant market share.

## What will be the new sustainable business opportunities coming up for ST?

As I mentioned earlier, I see two major market trends: energy and health applications.

In our market, everyone is looking for what we call the 'killer app', or 'killer application' that will completely change the market, such as the personal computer, the mobile phone or the game console to mention only the largest examples. Unfortunately, while it is easy to see the killer app after its market success, it is very difficult to guess it ahead of time.

# Award winning innovation in all spheres

INTERVIEW WITH LAURENT BOSSON, EXECUTIVE VICE PRESIDENT, FRONT-END TECHNOLOGY AND MANUFACTURING

In October, STMicroelectronics received the Best Innovator 2007 Award from the management and strategy consulting firm AT Kearney and the French newspaper Les Echos.

This award acknowledges companies that implement distinctly original and powerful strategies, management methods, organization and resources aimed at spearheading innovation in all areas of operation.

We spoke to Laurent Bosson, Executive Vice President for Front-end Technology and Manufacturing who led the ST team that received the award.

#### What does this award mean for ST?

To have been recognized as Best Innovator of the year by such a high-level panel and among a number of prestigious companies is a great honor for ST. We are particularly proud to receive this award as it endorses our ability to develop innovative solutions that improve people's everyday lives.

Research and Development expenditure represents between 16% and 18% of ST's turnover. This number alone would seem to indicate that innovation is important for ST. Actually, for a high tech company, whose future is based on new solutions and creativity, innovation in all its forms, from process to product to the approach to business, market, organization and culture is vital, so the R&D figure is just one aspect.

This award shows that we have succeeded in implementing a common work culture with all of the players throughout our value chain, from research laboratories to suppliers, manufacturers, customers, as well as competitors, which is essential when the challenges request a call for mobilization beyond the scope of a single

#### Why is innovation so important for a company like ST in the semiconductor market?

In our industry, where the technology race commands a very fast turnover of technology and products, it is vital to be the first on the market with new solutions in order to benefit from the highest price for the corresponding

#### Do you feel that, at ST, innovation is at the heart of all sites and organizations around the world?

Innovation should come from everyone, every day: this is the goal. In a large, multicultural organization like ST this is possible thanks to

the way our shared values are disseminated and our global targets are deployed throughout the whole company. This is the heart of our Sustainable Excellence approach, where a culture of innovation, excellence, continuous improvement and best practice is nurtured and has been recognized as a result through numerous awards and certifications.

A concrete example of innovation is the strategy of cooperation with customers to provide focused solutions to their needs while being guided by the principles of Corporate Responsibility to ensure ST is a good citizen in every country in which it operates. Another, in the area of logistics, is the 30% reduction of product shipment volumes transported, which reduces both cost and environmental impact. I could give many other examples of this kind.

#### How does R&D innovation fit into this picture?

Innovation from R&D takes many shapes and forms. R&D takes place at our silicon technology R&D centers in Crolles, Rousset and Tours in France, and Agrate and Catania in Italy, and at our Product Group Design centers across the world. R&D covers innovation:

- · in the field of manufacturing;
- to win new customers by setting up sales forces and design resources close to our customers; and
- in organization and cooperation: our R&D is organized to work with a very large panel of laboratories and other R&D partners in order to detect new ideas and bring them in-house when they fit with our business needs.

ST is also active in numerous collaborative research projects worldwide as well as playing a kev role in Europe's advanced technology research programs. These industrial partnerships are complemented by a wide range of research programs conducted with leading universities and research institutes around the world. By augmenting its rich portfolio of proprietary

technologies and core competencies with complementary expertise from a variety of carefully chosen strategic partners, ST has developed an unsurpassed capability to offer leading-edge solutions to customers in all segments of the electronics industry.



Since its creation, ST has exhibited an unwavering commitment to R&D. In 18% of its 2007 revenue, on R&D. That effort produced several hundred patent applications, maintaining ST's track record as one of the industry's most innovative and prolific inventors.

#### With this award ST has also been recognized for its excellence in corporate culture. Sustainable Excellence. How do you feel our culture is helping us to achieve such good results?

I believe our culture of Sustainable Excellence helps us succeed in many different ways. In a global organization like ST, a shared multicultural attitude is vital in helping employees to work harmoniously together. Our shared values ensure the unification of everyone within the company, while at the same time allowing the flexibility to act as cellular and highly empowered units. The quantifiable global targets that are actively deployed throughout the company are also key to our success.

Overall the implementation of our principles and cultural values has been highly effective in allowing ST to achieve greater consistency, engage with stakeholders in long-term partnerships that create value on all sides and provide improved quality and service to our customers around the world.

## Performance overview

#### HIGH LEVEL OBJECTIVE

Satisfy shareholders' expectations through financial and non-financial performance

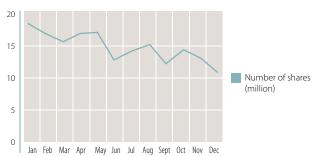
ST key figures   EC1		
	2006	2007
ST1 Net revenues	US\$ 9,854m	US\$ 10,001m
ST3 Net earnings	US\$ 782m	US\$ (477)m
ST2 Gross profit	US\$3,523m	US\$ 3,536m
ST4 Earnings per share	US\$ 0.83	US\$ (0.53)
ST5 Gross profit as a percentage of sales	35.80%	35.40%
ST6 Market share	4%	3.9%

Dividends paid   EC1				US\$m
	2004	2005	2006	2007
Dividends	107	107	107	269

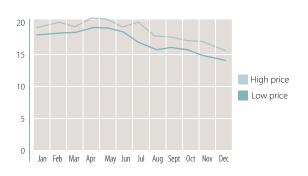
Operating income and cash flow   EC1				
	2004	2005	2006	2007
Operating income	683	244	677	(545)
Net operating cash flow	208	270	666	840

### Average daily trading volumes | STE8 |

Euronext Paris/Borsa Italiana Milan/NYSE



Share	price	2007,	NYSE	STE8	US\$
-------	-------	-------	------	------	------



ST sales   EC1				US\$m
	2004	2005	2006	2007
ST sales	8,760	8,882	9,854	10,001

ST sales by market segment   EC1   2.7   STE9				
	2004	2005	2006	2007
Automotive	15	16	15	15
Computer	16	17	17	16
Consumer	21	18	16	17
Industrial	16	14	14	15
Telecom	32	35	38	37

ST sales by region   EC1   2.7   STE7					
	2004	2005	2006	2007	
Europe	32.3	31.4	31.2	31.6	
North America	15.5	14.4	12.5	11.8	
Asia Pacific	21.2	20.9	21.1	18.7	
Greater China	21.2	24.8	25.9	27.5	
Japan	4.6	3.5	4.1	4.7	
Emerging market	5.2	5	5.2	5.7	

You can find the full disclosure on management approach in the html version of this report

For information on the indicators presented in this section, please refer to the Reader's Guide at the beginning of this report

## In 2007, our revenues increased approximately 1.5% to US\$10bn compared to US\$9.85bn in 2006

The semiconductor market was characterized by a solid increasing demand in units, supported by a strong economic environment, but with a significant decline in average selling prices. Our revenue growth was primarily driven by a double-digit increase in digital consumer applications, while our Flash Memory Group registered a double-digit revenue decrease. Our 2007 sales performance was below the growth rate of both the total available market (TAM) and the serviceable available market (SAM).

## Our financial results for 2007 compared to 2006 were favorably impacted by the following factors:

- continuous improvement of our manufacturing performances;
- the suspension of depreciation on the Flash Memory Group (FMG) assets held for sale;
- higher sales volume and a more favorable product mix; and
- benefit of increased funding to our research and development activities.

# But our operating income went down from a US\$677m profit in 2006 to a US\$545m loss in 2007, impacted by the following factors:

• The effective average US dollar exchange rate was  $\leq$ 1.00 to  $\leq$ 1.35 in 2007, reflecting the actual

exchange rate levels and the impact of certain hedging contracts, compared to our effective average exchange rate of €1.00 to \$1.24 in 2006.

- Our total impairment and restructuring charges of US\$1,228m in 2007 were significantly higher than the charges of US\$77m in 2006 due to the planned disposal of FMG assets held for sale, and the new manufacturing restructuring plan launched in 2007.
- Negative pricing trends offset the benefit of the higher sales volume and of the improved product mix.

While we continue to make significant improvements in a number of areas, such as our product portfolio competitiveness, capital intensity, manufacturing performance and cost structure, the financial benefits of our actions are difficult to see, as a rapidly weakening US dollar absorbs much of our progress. We will continue to take the necessary actions and portfolio efforts to further improve our operating leverage.

#### **Rewarding our shareholders**

We seek to use our available cash in order to develop and enhance our position in the very capital intensive semiconductor market, while at the same time managing our cash resources to reward our shareholders for their investment and trust in us.

Based on our annual results, projected capital requirements as well as business conditions and prospects, the Managing Board proposes each year to the Supervisory Board the allocation of our earnings involving, whenever deemed possible and desirable in line with our objectives and financial situation, the distribution of a cash dividend and/or a repurchase of our common shares.

#### Our sales by market segment

Telecommunications remains our primary market, with Nokia as our largest customer. We have formed alliances with customers including Alcatel-Lucent, Bosch, HP, Marelli, Nokia, Nortel, Pioneer, Seagate, Continental AG, Thomson and Western Digital. We are also developing major new key accounts, where we can leverage our position as a supplier of application-specific products with a broad range portfolio to address better the requirements of large users of semiconductor products, with whom our penetration has been lower. In 2006, our sales growth to these new key accounts increased by 48%, and in 2007 increased again by 41%.

In 2007 we maintained our focus on the mass market, which grew by 9% compared to 2006. ST continues to hold its position as the number one semiconductor supplier, based on revenues, in industrial applications, and number three in both automotive and wireless applications.

### Our inclusion in Socially Responsible Investment indices

Socially Responsible Investment (SRI) indices aim to highlight and evaluate the performance of the leading companies in Corporate Responsibility (CR) and Sustainable Development, allowing investors to make more informed decisions. Specialized agencies track and, in some cases, rate these best practices through annual questionnaires filled in by the companies or based on publicly-available information.

Being assessed by SRI analysts, especially when we receive feedback from them, provides us with the opportunity to understand to what extent external stakeholders perceive our approach to CR is integrated in our strategy, organization and management. It also

helps us evaluate where we stand compared to other companies and supports our continuous improvement in this field.

However we also need to make sure that our Sustainable Excellence strategy and its implementation are well understood by analysts and investors. From our experience, this annual report is a key tool to ensure good comprehension of our performance, but it is not enough. We also spend time with these stakeholders, at meetings, road shows and through other forms of regular contact, to explain the details of our approach and some of the complexities and challenges that we face in implementing our strategy.

In 2007 STMicroelectronics was included in the five

- Advanced Sustainable Performance Indices Eurozone (France):
- Dow Jones Sustainability Indices (United States)
- E Capital Partners Indices (Italy);
- Ethibel Sustainability Index (Belgium): and
- FTSE4Good (United Kingdom).
- (\*) Note: we have only counted the main SRI indices here; there are other best practice lists and indices to which we belong, which we have not referred to. This is a new indicator

#### ST inclusion in the main sustainability indices | STE11|

		ASPI (France)		<b>DJSI</b> (Switzerland))		Ethibe	l Sustainabili (Belgium)	ty Index	ECPI (Italy)		IGOOD Kingdom)	TOTAL
			DJSI World	DJSI STOXX	DJSI EURO STOXX	ESI Pioneer Global	ESI Excellence Global	ESI Excellence Europe	Ethical Index Euro	FTSE4 GOOD Europe Index	FTSE4 GOOD Global Index	
2	2007	<b>✓</b>	•	<b>~</b>	~	•	<b>~</b>	<b>~</b>	~	•	<b>~</b>	10

20 I Economic performance overview 07

#### HIGH LEVEL OBJECTIVE

### Create economic value for stakeholders

#### Economic impact on 4 key stakeholders | EC9 | STE10 |

#### Some key product achievements in partnership with our customers

Communication: Our Bluetooth devices are designed in 130 mobile phones, and in volume production in more than 70 phones; our WLAN (wireless LAN) solution is used in 20 mobile devices with a top tier Original Equipment Manufacturer (OEM), and we successfully manufactured the first devices using 45 nanometer (nm) RF-CMOS technology, which is essential for next generation WLAN applications.

Digital consumer: In 2007, we shipped 78 million MPEG decoders (an increase of 24% compared with 2006), and we are addressing the market with set top box 'plug-in' solutions. We also acquired Genesis to strengthen our digital TV product offering.

Data storage: We started shipments of our 90nm System-On-Chip and our 65nm device has been selected by a world-leading hard disk drive OEM. Both solutions are based on ST's proprietary intellectual property.

MEMS: We enjoyed a triple digit growth in 2007 and we have a solid position in gaming (supplying sensors to Nintendo's Wii).

Industrial: We won several important power conversion contracts, including a power supply solution for a major game console and power management for a major Chinese OEM for laptop computers.

Automotive: We inaugurated a joint Automotive Application Laboratory with Tianjin Faw Xiali, a leading Chinese OEM, to develop advanced automotive solutions.

#### **Creating value for our suppliers**

While the amount paid to suppliers of tangible assets is an official and audited figure

published in our 20-F report, the split of purchases between tangible assets, materials and others is based on different data sources and time frames. It aims to give a realistic visibility on the most important economic flows between ST and its main supplier categories, but it should not be considered as official and audited accounting information.

We do not publish the split of our purchases by region, because in many cases what we buy in a given country may in fact be imported from another country, and the resulting data is very difficult, if not impossible, to analyze.

#### Our economic contribution to society

Taxes are part of our normal economic contribution to society, but we operate in many jurisdictions with highly complex and varied tax regimes.

Our tax rate is variable and depends on changes in the level of operating profits within various local jurisdictions, on changes in the applicable taxation rates, and on changes in estimated tax provisions due to new events. We currently enjoy certain tax benefits in some countries, but these benefits may not be available in the future due to changes in local jurisdictions.

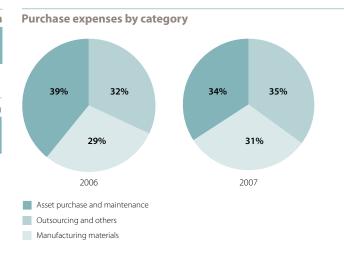
#### Other developments

• On May 22, 2007, we announced that we had entered into a definitive agreement with Intel Corporation and Francisco Partners LP to create a new independent semiconductor company from the key assets of our and Intel's memory businesses, which generated over US\$3bn in combined annual revenue in 2007. The new company's strategic focus will be on supplying Flash memory solutions for a variety of consumer and industrial devices, including cellular phones, MP3 players, digital cameras, computers and other high-tech equipment.

- On June 18, 2007, we committed to a new program to optimize our cost structure, which involves the closure of three manufacturing operations. Over the next two to three years we will wind down operations at our 200-mm wafer fabrication plant in Phoenix (Arizona), our 150-mm fabrication plant in Carrollton (Texas), and our Back-end packaging and test facility in Ain Sebâa (Morocco). We expect these measures to generate savings of approximately US\$150m per year in the cost of goods sold once the plan is completed.
- In July 2007 we announced an R&D agreement with IBM.
- On August 8, 2007, we announced our intention to deepen our collaboration with Nokia on the licensing and supply of integrated circuit designs and modem technologies for 3G and its evolution. As part of this agreement (announced on November 5, 2007) a part of Nokia's integrated circuit operations were transferred to ST, including 185 Nokia employees based in Finland and in the UK. Nokia has awarded us a design win of an advanced chipset supporting high data rates, which represents our first win of a complete 3G chipset.
- On December 11, 2007, we announced a tender for the effective control of Genesis Microchip Inc. This acquisition confirms ST as a leading System-On-Chip technology provider to the rapidly growing digital TV and display market.

All taxes paid   EC1				US\$n
	2004	2005	2006	2007
Taxes paid in the year	168	122	98	64

Payments for purchases of tangible assets   © STE1					
	2004	2005	2006	2007	
Purchases of tangible assets	2,050	1,441	1,553	1,140	



#### HIGH LEVEL OBJECTIVE



#### Creating the conditions for Sustainable Innovation

#### **R&D**, critical to our success

We believe that Research and Development (R&D) is vital to our success. The main R&D challenge we face is to continually increase the functionality, speed and cost-effectiveness of our semiconductor devices, while ensuring that technological developments translate into profitable commercial products as quickly as possible.

Our R&D centers are strategically located around the world, primarily in France (Crolles, Grenoble, Tours and Rousset), Italy (Agrate and Catania), as well as in the United States (Phoenix, Carrollton, and San Diego), Canada (Ottawa), the United Kingdom (Bristol and Edinburgh), Switzerland (Geneva), India (Noida and Bangalore), China (Beijing, Shenzhen and Shanghai) and Singapore.

From 2002 to December 31, 2007, we cooperated with NXP Semiconductors and Freescale Semiconductor as part of the Crolles2 Alliance to jointly develop sub-micron CMOS logic processes on 300-mm wafers and to operate an advanced 300-mm wafer pilot line in Crolles, France. Following the termination of this cooperation, we will begin working with IBM and its partners on January 1, 2008 under an agreement to co-develop 32 nm and 22 nm core CMOS at IBM's East Fishkill (United States) facility as well as to continue to develop with IBM state-of-the-art derivative technologies at Crolles2.

In addition, our manufacturing facility in Crolles, France houses a R&D center that is operated in the legal form of a French Groupement d'Intérêt Economique called 'Centre Commun de Microelectronique de Crolles'. Laboratoire d'Electronique de Technologie d'Instrumentation ('LETI'), a research laboratory of Commissariat de l'Energie Atomique ('CEA'), an affiliate of Areva Group (one of our indirect shareholders), is our partner.

The Agrate R2 activity encompasses prototyping, pilot and volume production of the newly developed technologies with the objective to accelerate process industrialization and timeto-market for Smart Power (BCD) technology and MEMS, in addition to certain memory products.

Our various design centers are focusing on a wide variety of areas that offer opportunities to harness our deep understanding of microelectronics and our ability to synthesize knowledge from around the world in order to prepare our future. These include:

Soft Computing, in which a variety of problemsolving techniques such as fuzzy logic, neural networks and genetic algorithms are applied to situations where the knowledge is inexact or the computational resources required to obtain a complete solution would be excessive using traditional computing architectures. Potential applications include more effective automotive engine control, emerging fuel-cell technology and future quantum-computing techniques

that will offer much greater computational speeds than are currently achievable;

Nano-Organics, which encompasses a variety of emerging technologies that deal with structures smaller than the deep sub-micron scale containing as little as a few hundred or thousand atoms. Examples include carbon nanotubes, which have potential applications in displays and memories, and all applications that involve electronic properties of large molecules such as proteins; and

Micro-Machining, in which the ability to precisely control the mechanical attributes of silicon structures is exploited. There are many potential applications, including highly sensitive pressure and acceleration sensors, miniature microphones, microfluidic devices and optical devices.

Furthermore, an array of important strategic customer alliances ensures that our R&D activities closely track the changing needs of the industry, while a network of partnerships with universities and research institutes around the world ensures that we have access to leadingedge knowledge from all corners of the world. We also play leadership roles in numerous projects running under the European Union's IST (Information Society Technologies) programs. We actively participate in these programs and continue collaborative R&D efforts within the MEDEA+ research program.

#### Partnerships with the academic community | SO1 | STE3 | C STS44 |

	2005	2006	2007
Partnerships with universities, colleges, schools	217	236	335

R&D expenditures   🔾 STE4				US\$m
	2004	2005	2006	2007
Expenditures	1,532	1,630	1,668	1,802

R&D headcount evolution   STE5				
	2004	2005	2006	2007
Overall R&D headcount	9,800	9,700	10,300	10,570
R&D engineers and technicians	6,003	6,570	7,195	9,366*

<sup>(\*)</sup> The significant increase of R&D engineers and technicians between 2006 and 2007 (7195 to 9366) is due to the update of our job referential.

R&D engineers and technicians by region   STE5			
	2006	2007	
Europe	4,857	6,186	
Americas	352	395	
Asia/Pacific	1,730	2,372	
Others	256	413	
Total	7,195	9,366	

ST patent applications filed by region   STE6				
	2004	2005	2006	2007
Italy	239	253	212	152
France	245	310	233	204
Rest of Europe	75	69	59	49
Americas	69	39	41	33
Asia-Pacific	86	49	62	59
Total	714	720	607	497

## Following the US closure announcement

INTERVIEW WITH KIMBERLY PETERS, VICE PRESIDENT, HUMAN RESOURCES, NORTH AMERICA



To improve its competitiveness, ST's top management has reviewed its industrial strategy and announced, in July 2007, several new restructuring activities to come.

The most significant part of ST's new restructuring activity will take place in the United States where ST's management has decided to close two Front-end manufacturing sites: Phoenix (Arizona) and Carrollton (Texas).

## How is the decision to close being implemented in the US?

Following the decision made by ST's top management, the information was cascaded to the Carrollton and Phoenix site management teams for implementation. Our first action was immediately to propose a retention plan to slow the departure of employees and communicate important information.

The communication and information process has been a key part of our approach:

- We sent letters to all of the affected employees regarding the elements of the retention package.
- As required by law, all employees received a letter stating the estimated timing of the manufacturing shutdown (approximately two to three years after the announcement).
- We organized preparatory meetings and information and communication sessions for all employees, during which site management communicated the details of the restructuring activity and of the retention plan.
- A questions and answers document was distributed to all employees.

• A dedicated website was created for employees to post all of their questions regarding the closure. These questions were answered by site management and/or by Human Resources.

We have started workforce reductions in Carrollton but not yet in Phoenix. Employees are provided with 60 days advance notice of their last day of employment, which can occur at any point between the announcement and the closure.

## What additional support have you been providing to affected employees?

The Carrollton site has been approved for the Trade Adjustment Assistance Program due to the fact that these jobs will be moving overseas. This is a program administered by the US Department of Labor for each state and allows employees to be re-trained for occupations that are in demand, while at the same time collecting unemployment insurance benefits. The Phoenix site will also apply for this program when it begins the reduction of its workforce.

We also decided to provide several training sessions - for example on stress management, résumé writing and entrepreneurial skills – to provide the affected employees with the appropriate tools and support throughout this transition period.

## What have been the main challenges so far and how have you addressed them?

Approximately 2,000 employees are affected by this decision, from all fields. Retaining and mo-

tivating our employees is the main challenge we have to face.

We have had to identify the key employees to manage our activity until the actual closure and we have offered a fair retention package to the affected employees.

For the others, we have put in place outplacement services to assist them in their future job search. Federal and state government agencies have also been contacted to help us in this process. In line with our Principles for Sustainable Excellence and our company Social Policy, we respect and value our employees. We are maintaining open and honest communication during this difficult time.

For details on the results of the restructuring activities see page 32



# Closure of our design office in Sophia Antipolis

In September 2007, ST announced the reorganization of its Communication Infrastructure Division (CID) and the decision to cease wireless infrastructure activity leading to the closure of ST's design office in Sophia Antipolis, France.

67 ST employees from different sites in India, Malta, France, Italy and the United States were affected by this reorganization, and with the exception of those employees in Sophia Antipolis, all have been transferred to different positions within their existing sites.

In order to reduce the social impact of this closure as much as possible, the Human Resources department signed a Gestion de l'Emploi (GER) agreement with the relevant unions regarding the reorganization of CID.

The 28 employees based in Sophia Antipolis were affected by this agreement and all were

offered the possibility of internal mobility in different product groups in France or other countries.

Those employees who preferred to seek solutions outside ST were granted 'mobility leave', a new form of support introduced in France as part of the agreement with the unions. This mobility leave allows employees to receive ST financial support for an eight-month period, during which they are supported in finding a job or creating a new company.

The status of the social plan for Sophia Antipolis at the end of 2007 is shown in the table on page 32. Of the 20 employees who chose to benefit from the new mobility leave, 18 have already embarked on a new project, such as a new job or the creation of a new company.

INTERVIEW WITH JOSEPH DE FOMBELLE, GENERAL MANAGER AT THE BOUSKOURA SITE, AND ABDENNASSER AMANA, GENERAL MANAGER AT THE AIN SEBÂA SITE, MOROCCO

Following the restructuring activities carried out in 2006, in 2007 ST top management announced further restructuring that will involve additional streamlining of ST's Back-end activity in Morocco.

18 months ago, ST had three factories in Morocco, all located near Casablanca: Ain Sebâa, created more than 50 years ago; Bouskoura 1, dedicated to Subsystems Product Group (SPG) modules; and Bouskoura 2, a large facility created in 2000.

ST top management's decision to concentrate all remaining Back-end activity in a single site aims to benefit from the growth potential of the largest and newest site in Bouskoura and the synergies that will result from having all activities at one location.

## What do these new restructuring plans mean for ST Morocco in practice?

The first step of the plan was successfully completed in 2006, with the transfer of approximately 500 employees from the SPG activity to the new Bouskoura 2 site within a period of six months. The old site was then sold.

See our 2006 report, page 24, for more information

The second step of the plan, announced in July 2007, involves the closure of our Ain Sebâa site. This operation will be completed within two years of the announcement. One third of the Ain Sebâa production will be moved to Bouskoura 2, while the rest will be transferred to Asia. The transfer of the first lines from Ain Sebâa began towards the end of 2007, but the main part of the transfer will take place during 2008. Over 350 of the 2,154 employees at Ain Sebâa have been transferred to Bouskoura since July 2007. The transfer of employees will continue gradually in 2008 and 2009.

## What kind of challenges does such a major transfer pose?

The challenge we have is to ensure a perfect synchronization of Ain Sebâa's phase down and Bouskoura's ramp up. To achieve this, a very detailed plan has been drawn up and is being followed carefully, covering investments, inventory policies, equipment qualification, and certification and the management of the social aspects of the transfer, which includes competency matching of employees, training, and strong support for employees on an individual basis.



Of course, we are very aware of the fact that any change always needs to be carefully explained and so we have regular communications with all employees and we are working closely with employee representatives, as we did last year, within the context of the restructuring plan. Each of us here has a key role to play and everyone is involved in ensuring the success of this plan. Our main challenge is to conduct and manage these changes effectively and quickly, while at the same time accelerating the continuous improvement of our performance in terms of competitiveness, quality and service and ensuring the well-being of our employees.

For details on the results of the restructuring activities see page 32

# An update on our restructuring activities in Rennes

In 2000, ST's activities were severely impacted by the bursting of the so-called internet bubble and its effect on all electronic market segments. This crisis, linked to an excess of production capacity and exacerbated by a stronger euro, put severe pressure on the price of electronic components.

To maintain its competitiveness, in 2003 ST was forced to launch a global manufacturing restructuring plan aimed at replacing the mature 6-inch Integrated Circuits wafer technology by more advanced 8- and 12-inch wafer technology. The 6-inch wafer production site based in Rennes, France, was the smallest among the ST sites and was located in the town itself, both factors making it impossible to introduce the new technology. As a result, Front-end production activities were transferred to our

Ang Mo Kio site in Singapore. The Back-end activity dedicated to the Space Satellite market remained in Rennes due to its technological complexity and high added value for our key customers in this area.

The social impact of the restructuring plan was addressed by a range of actions including internal mobility, personal training, outplacement, support for company creation and early retirement. The objective was to propose a personal solution to each individual employee affected and to reduce the social impact of the company restructuring as far as possible.

Over the last three years, a dedicated ST team and a company specialized in outplacement have followed the results of the plan.

Following the implementation of the restructuring plan, there were 39 employees involved in Space Satellite Back-end activity, and by the end of 2007 this had increased to 72 employees. This workforce increase is the result of a growth in this activity, mainly due to the current boom in the communication satellite market and the recent introduction of new ST products. Some of the additional employees are former ST Rennes Front-end operators.

The eight employees for whom a solution has not been found can still benefit from the services of the outplacement company at any time if they wish.

<u></u>	or full details on the 2007 status of the Rennes rest	ru
turin	activity see the table in the html version of this rep	100

## Managing the **creation** of **Numonyx**

Creating a new joint venture between ST, Intel and Francisco Partners to focus on the Flash memory activity was a key project in 2007. ST had to manage the transfer of 4,100 employees, core competencies and expertise and production capacities.

#### The Flash memory joint venture

To better face increasingly stiff competition in the Flash memory market, characterized by many players and high volumes, ST and Intel decided to combine their Flash activities to gain economies of scale and form a much stronger global competitor.

In May 2007, with the private equity firm Francisco Partners, they reached an agreement on the creation of an independent company specialized in non-volatile memories. Named Numonyx in July 2007, this venture will target new technology markets including cellular phones, MP3 players, digital cameras and computers. The new company will be headquartered in Rolle, Switzerland, with nine main research and manufacturing locations around the world and approximately 7,600 employees.

In this joint venture, ST will contribute approximately US\$2.4bn in assets with the transfer of production lines from sites in Italy, Singapore,

Malaysia and China. This will involve the transfer of 4,100 employees from ST to Numonyx.

### Managing the social side of the joint venture

After signing the definitive agreement in May 2007, the real work began. An integration team was established and multiple work streams were set up to build the new company. The industrial plan was shared with governmental representatives and workers' councils in Europe and Asia.

Compensation and benefits plans were designed, taking into consideration the current existing employee contracts and agreements and recognizing past service for seniority purposes. During the entire start-up period, employees aligned with the new company were kept informed on our progress through management-hosted audio conferences and internal newsletters.

The Numonyx management team staffed the new company with the right number of employees from both parents to run the new operation efficiently.

All of the work carried out in 2007 to support the creation of Numonyx, including facilitating the social transition, is planned to culminate in the first quarter of 2008 when autonomous activity of the joint venture will begin and all employees will be officially transferred from both parent companies.

See more on page 25



# A new collaboration between Nokia and ST

Nearly 200 employees from Nokia have become ST employees

On August 8, 2007 ST reached an agreement with Nokia, our largest customer by revenues to strengthen its wireless business. Through a deeper collaboration with Nokia, ST will design, license and supply semiconductor and modem technologies for the third generation of mobile telephony (3G) and its further developments. Based on Nokia's modem technology, energy management and radio frequency technology, ST will deliver these electronic components to its partner and the open market.

This collaboration includes the transfer of 185 engineers and other Nokia personnel. This step has been subject to a personnel consultation process required by local regulations in Finland and the UK, where they are based.

Following the announcement of this new partnership, the ST Mobile Multimedia and Communication product group facilitated the integration of their new colleagues. The objective of the integration program was to give newcomers all the information and support necessary to help them understand their new environment and move smoothly into their jobs. It included:

- welcome days;
- training of Nokia ambassadors to help create synergies; and

• a "Getting Together" workshop to help identify the image employees had of each others' companies, evaluate gaps and find paths for improvement.

The final integration step will be a large seminar organized by ST University called "Discovering ST".

See more on page 25





# ST University accompanying ST in all its strategic decisions



As the internal university of the company, ST University is involved in all of the major challenges ST has to face and has the role of fostering the development of our management and employees with existing learning solutions, but also new ones to respond to very specific strategic needs.

In 2007, several strategic projects fell into the scope of STU.

#### **Supporting Numonyx**

Following the announcement in 2007 of a joint venture in Flash memories with Intel and Francisco Partners, the ST University (STU) team was consulted at an early stage of the project to help the new company, Numonyx, define its employee induction and integration roadmap, and to identify the training program portfolio that could be transferred to the new company for their immediate benefit.

STU also contributed, in partnership with the new company's learning and development team, to design paths related to:

- · developing new company values;
- identifying a network of learning partners and consultants; and
- preparation of employee induction days. Part of the ST University training catalogue will be offered to the employees of the new company, with the goal of ensuring that Numonyx and its employees benefit from both STU's experience and programs.

#### **Integrating Nokia employees**

Following the announcement of a new partnership between ST and Nokia, ST University

was commissioned to design and organize a seminar called "Discovering ST", which had the objective of supporting the 185 new employees from Nokia who have joined ST in 2007 and enlarging their vision and understanding of the company (values, jobs, activities, technologies, markets, main processes, etc).

See page 24 for more details

## Accompanying the US sites in their announced closure

Once the decision had been made by ST top management to close two manufacturing sites in the United States over the next two to three years, the information was cascaded to the Carrollton (Texas) and Phoenix (Arizona) site management teams for concrete implementation

The work of the Human Resources department to support affected employees was complemented by additional support from ST University, which was represented on the Phoenix site task force created to manage the restructuring activities. STU provided external certification courses, including Six Sigma Black Belt training for Quality, to help employees be better qualified when leaving ST.

See page 22 for more details

#### **Looking forward**

ST University has defined six strategic goals for the next few years.

- Enhance focus on business impact to train and develop people on strategic ST topics, strengthen the link to business goals and performance and be fast and responsive.
- Boost people development to integrate action-based learning with Human Resources processes, be focused on individual development, and work as a 'consultant' with ST organizations.
- Shape and share ST's culture of Sustainable Excellence by driving and deploying ST's cultural evolution and enhancing the benefits of ST's diversity through common values and ways of working.
- Provide and deploy a learning infrastructure for ST to develop learning solutions that allow rapid creation of training courses and virtual collaboration tools as well as accelerate information and knowledge sharing.
- Propose the best solution for any internal request for training, which involves collaboration with ST experts and managers across the company to identify needs and to design, develop and deploy tailored programs to improve performance, increase competencies and change behavior.
- Detect and respond to new trends by learning from the world outside ST to bring in valuable competences, and sharing and selling ST's knowledge and expertise to external partners in our value chain, thus supporting the company's external brand image.

## STU learning solutions cover five major categories

- Management representing 46.1% of total STU training hours
- Job-specific 25.1% (excludes all technical training)
- Personal development 16.2%
- Masters in microelectronics 8.1%
- Tools and methodologies 4 5%

#### 2007 indicators

STU activity versus ST training activity 4.83% STU training hours 87,013 ST training hours 1,802,736

# Implementing human rights through a multi-faceted approach



In 2007 ST launched an internal human rights working group with the dual role of supporting ST's participation in the Francophone initiative, Entreprises pour les Droits de l'Homme (EDH) and proposing and initiating internal programs and activities to drive a deeper implementation of human rights.

As a signatory of the United Nations Global Compact and a member of the Electronic Industry Citizenship Coalition (EICC), ST commits to respect and promote human rights within its sphere of influence, abiding by the UN Declaration of Human Rights and the core conventions of the International Labor Organization (ILO).

One of the challenges any company faces is to understand how to translate these high-level commitments into action. In order to achieve this, we take a multi-faceted approach invol-

ving a number of different internal and external activities that provide us with useful perspectives, tools and insights. Our internal working group on human rights has been created to support these different activities, learning from each of them and proposing ways to channel them into specific actions that will help us in our continuous improvement process.

#### Participation in Entreprises pour les Droits de l'Homme

EDH is a group of eight multi-national Francophone companies, including ST, created in 2005 to find practical ways of applying the aspirations of the Universal Declaration of Human Rights within a business context, and to inspire other companies to do the same. The group has been inspired by the Business Leaders Initiative on Human Rights (BLIHR), and is facilitated by the same organization.

EDH's regular meetings and shared activities are organized to serve the group's high-level objectives, which include: exchanging good practices and exploring how to resolve shared challenges; working with stakeholders to find solutions to challenges; contributing to the international framework for human rights and business; and promoting human rights through our activities, including direct action with stakeholders within our sphere of influence.

The group's core activities involve key stakeholders and advisors with expertise in the area of human rights, including the French government and Amnesty International France.

In 2007 the group met four times and worked to establish concrete objectives and work groups. Some of the activities carried out during the year included mapping our key human rights issues in the context of our respective spheres of influence, identifying transversal challenges common to all our companies (e.g. freedom of association) and other sector-specific challenges (e.g. security activities), and a focus on the need for human rights training. Amnesty International France will participate in work groups dedicated to these topics in 2008.

#### ST's Human Rights Working Group

The internal group set up to spearhead ST's human rights implementation consists of a core group of specialists from the Corporate Responsibility (CR) and Human Resources departments of different sites and regions, some of whom also participate in the external EDH group. This core group also includes a few business managers, whose experience in the field and strong interest in human rights help align the proposals and activities of the group with the reality of daily business life.

In 2007 the internal group met twice a quarter and its activities included: the mapping of human rights issues using the BLIHR Matrix and the EICC Self Assessment Questionnaire (SAQ); identifying our strengths, weaknesses, opportunities and threats relating to human rights implementation; identifying areas in which ST requires global collective action to continuously improve human rights performance; and gathering human rights dilemmas or challenges and best practice solutions for a 'marketplace' approach to benchmarking and sharing inside and outside ST.

In addition to these activities, the working group has formed three sub-groups on different aspects of human rights to support their integration into our business management and tools.

- 1. Performance management: This group focuses on proposing and initiating actions to ensure our management systems for labor (and some aspects relating to ethics) are robust and consistent across the company. These include objectives, policies and processes, indicators to track and measure performance, internal and external audits, and reporting.
- 2. Equal opportunities: This group is the continuation and evolution of an earlier working group on gender equality, which is working to turn proposed strategies on this

issue into concrete action. The starting point is to share France's successful approach with Italy, Morocco and other ST sites around the world in a way that sets a common company framework while at the same time respecting local cultural differences. The focus covers gender and disability

3. Training and communication: With the objective to develop awareness and build competences in human rights inside and outside the company, this group focuses on developing presentations, innovative communication campaigns and to support the development of training material for Human Resources managers specifically and also for managers in general across the company. I HR3 I

## Using gap analysis tools to evaluate areas for improvement

Our internal human rights group has also taken advantage of other ongoing activities in the area of CR to understand how the company can improve. The group includes several members of the corporate Sustainable Excellence Council, who represent different ST sites and organizations and are responsible for imple-

menting CR. These members, together with the CR department, were able to begin drawing on the results of the EICC SAQ to understand which aspects of ST's labor management systems could be made more robust through specific actions at company and local level.

For more information on our internal deployment of the EICC SAQ see page 58

In addition to this, the work carried out by many sites in 2007 to identify gaps between our Code of Conduct, the Principles for Sustainable Excellence, and real-life business practice clarified the need for improvement in some sub-sections of the "People" chapter, for example empowerment, equal opportunities and fair treatment. We were able to match some of these gaps with those identified in our management systems through the completion of the EICC SAQ, which facilitates the task of defining appropriate corrective actions. A number of the gaps identified are being addressed by work ongoing to make our process for noncompliance reporting more formalized and consistent across the company.

## Focus for 2008

In 2008 the ST human rights working group will continue to work in close collaboration with the CR and Human Resources departments to support the company in deepening its implementation of human rights and contributing to external initiatives such as EDH and the EICC. The group will focus in particular on training and on documenting solutions to challenges that will facilitate learning between different parts of ST and within the business networks we participate in.

For more details on the gap analysis workshops on the Principles, see page 12

For more details on the process for non-compliance reporting, see page 14



## Employee Opinion Survey becomes Employee Engagement Survey

In the last employee opinion survey held in 2005, many employees expressed their wish to be more closely involved in the company's orientations and in the choices that will lead to improved performance. In response to this expectation, we are changing our original Employee Opinion Survey into a new Employee Engagement Survey, which will be launched at the end of March 2008.

The world of semiconductors is evolving and as a result we are undergoing fundamental changes in our business model that will require a greater focus on excellence and innovation. To achieve this, everyone's commitment is vital.

The results of our previous employee surveys indicate that employee commitment has declined slightly at ST in recent years. Since 2001 the cyclical model that characterizes our industry along with general market conditions have led to a challenging operating environment. Employees and management as well as external observers have found themselves confused and disconcerted by sudden, abrupt changes and the influence of new players in the sector. All of

this has fundamentally affected our way of working and organizing ourselves. In this context, a high level of individual and collective commitment is crucial to successfully achieve the next stages of our development as a company.

One of the most important factors influencing employee commitment at work is their direct manager. Other factors also affect commitment levels, such as company culture, training, remuneration, and a shared vision or a well-communicated strategic framework.

The new engagement survey aims to evaluate these elements using targeted questions with a focus on the assessment of operational management, which was less visible in previous surveys. By identifying their strong points and opportunities for development, operational managers will be able, with the help of their own management and of Human Resources staff, to draw up realistic and rapid action plans based on best practice in the world of international business.

The new survey will enable us to focus more deeply on evaluating commitment levels

among employees. The international consultancy company we have chosen to work with us is considered to set the benchmark in this area by a wide range of global businesses that have had their employee commitment evaluated by the consultants over more than five years. As has always been the case, complete confidentiality of employee responses is guaranteed. The survey responses will reside on the consultants' system and they administer the questionnaires.

In 2008 the survey will be 100% online – an improvement compared to previous surveys. This will produce a shorter lead-time in analyzing and publishing the results. Our consulting partners will facilitate debriefing sessions, which will be set up at worldwide, geographic and organization level. We will benefit from their expertise to draw up realistic and effective follow-up plans.

The participation of all employees in this Engagement Survey process will provide a unique opportunity to contribute to shaping ST culture and build the future of our company as a great place to work.

# Our approach to equal opportunities for the disabled



Diversity, non-discrimination and equal opportunities are important parts of our Sustainable Excellence culture. Ensuring the integration of disabled employees has been a major focus in France during 2007, formalized by the signature of agreements with unions at local and national levels.

For several years, French sites have led initiatives to improve ST employees' level of awareness about the challenges disabled people have to face on a daily basis and to find solutions for better integration.

Disability is a very general term that includes physical handicaps as well as psychological ones. Globally, in France, we recognized that we had a very low employment rate of disabled people and very few disabled applicants for ST's job openings. There was also a major gap with respect to the legal obligation of having 6% of disabled employees in our total headcount: the reality, in 2006, was 1.3%.

This issue is also a societal issue at the country level, where we know that we have a high level of unemployment among disabled people.

At the same time, we wanted to strengthen our social dialogue and implement new processes to protect our employees better from any risk of disability by anticipating any potential cases that could cause more serious problems later on.

In the evaluation phase, we involved employees from all organizations, functions and

responsibility levels, including disabled people, to ensure the most complete approach and overview of the real situation. The objective was to define concrete proposals and ensure strong support when deploying our program.

We signed three-year local collective agreements with unions, approved by state employment authorities, at four major French sites – Grenoble, Rousset, Crolles and Tours – together employing 80% of our workforce in France.

In the deployment phase, we created local steering committees including employees and top management, but also representatives from departments that may be critical in this process: Human Resources, Medical Service, Purchasing, Financial Control and union representatives.

From now on, in order to follow closely the progress of our implementation, we will send an annual report validated by the state employment local authority to ST sites' executive committees and unions. Our next objective is to deploy the same process at two other French sites by mid-2008.

# A summary of concrete results in 2007

- We have made significant progress in recruitment: 12 disabled employees have been integrated, increasing the percentage of disabled employees in France to 1.9%.
- We have carried out specific actions to adapt 151 jobs so they can be effectively undertaken by disabled employees.
- We have created a training course to support and coach Human Resources teams and managers.
- We have signed new subcontracting contracts with severely disabled people working in protected workshops, such as reprographics, printing and landscaping.
- We have launched several local campaigns to raise awareness of employees and managers about disability.
- New 'alternate' education contracts have been created in partnership with training companies and state bodies for disability. These contracts are specifically designed for disabled students to achieve technical or administrative diplomas in line with our job requirements. People learn part time at school and work part time for ST at Rousset, Grenoble or Crolles.
- We participated in a variety of local external events (recruitment forums, conferences, etc.).
- We have initiated technical programs dedicated to disability – for example, we are working on a project aimed at developing high technology products to improve the autonomy of disabled people, in partnership with other companies.
- We have shared details of our approach with other ST sites through ST's company-level working group on human rights;
- We have explored the possibility of a formal partnership with Handicap International, an NGO.

## Bridging the digital divide, a main focus for ST Foundation

For several years now, the STMicroelectronics Foundation has been spearheading a worldwide computer literacy program called Digital Unify, aiming at reducing the digital divide in both developing and developed countries.

#### ST Foundation's 2007 commitment

ST Foundation continues to be deeply involved in its major Digital Unify (DU) program. This involves ST sharing its competencies in Information and Communication Technology (ICT) with people who lack knowledge about how to use a personal computer and access the internet. In the 13 countries where DU is present. ST Foundation successfully spreads computer literacy by providing free of charge both the technology and the basic training.

The Foundation also supports the United Nations Global Alliance for ICT and Development (GAID). It actively participates in conferences, events and activities, including the creation of an inclusive global forum and platform to bring together all the stakeholders involved. The objective is to enhance the achievement of internationally-agreed development goals, notably the reduction of poverty.

ST Foundation continues to contribute to deserving NGOs, among them the Swiss Red Cross for its relief effort in Bangladesh, following the tremendous cyclone that struck the country in November 2007.

#### A focus on Digital Unify in Morocco: a history of success

In the midst of the Atlas mountains, in Morocco's remote hinterland, a female doctor in her 60s manages patients' case histories using a computer. The inventory of a grocery store is being handled through an electronic spreadsheet and soon merchandise may be sold online. Mothers keep in touch with their sons living downtown by e-mail, to avoid expensive bus rides on long and dusty roads. In Casablanca's slums, orphans with behavioral difficulties have the chance to learn how to use computers. And illiterate women from country villages learn how to read and, only shortly after, how to type as well.

These are just a few of more than 10,000 success stories from Morocco in 2007 alone, a testimony to the outstanding performance of this country among those where ST's Digital Unify program is present.

The ingredients for this great success include a thoughtful blend of motivation, dedication and enthusiasm demonstrated by everyone involved. Teachers work extra hours for what they feel is an important mission in the most deprived areas of big cities, or in remote country settlements. Participants attending computer classes are curious and shy at first, but soon become enthusiastic. Partner organizations and local governmental bodies are extremely helpful and deeply grateful for the support. Last but not least, supportive and highly dedicated ST volunteers and management make the program possible.

Such a fruitful cooperation will be formalized at the beginning of 2008 with the signing of an important convention agreement with the Moroccan Ministry of the Interior for further expansion of DU.

#### **Looking forward to 2008**

In 2008 the Digital Unify program will expand significantly in Bolivia, Rwanda, and Senegal - the latter including a three-year partnership with a government agency. These new projects will go hand in hand with a reinforcement of ST Foundation's existing initiatives: increasing and improving its presence in India and Morocco; strengthening activities in Italy, Malaysia, Tunisia, Malta, Thailand, Congo, Ethiopia, Nepal, Sierra Leone and Uganda; and supporting motivated ST volunteers, with the ambition of giving all of them a framework at every ST site to support their local engagement with ST Foundation.

Digital Unify's success stories reward each of us. The support of ST and ST volunteers to local communities through ST Foundation reflects our company's longstanding commitment to social responsibility.

www.stfoundation.org

# numbers

See page 37 for more training-related figures



## Our Youth, our Future

Since 2003, ST's Toa Payoh site in Singapore has dedicated a project team to enhancing the site's contribution to Social Responsibility and the well-being of ST employees and members of the local community.

In 2007, this program focused on projects involving two local Singapore primary schools.

#### **Building the leaders of tomorrow**

ST Toa Payoh has partnered with Pei Chun Public School to sponsor some of its pupils that come from families with financial difficulties. The students are given financial assistance to support their learning and development program. These 'adopted' pupils have gone through a series of tuition programs that have helped them perform better academically and in their personal development.

Established in 1933, Pei Chun Public School is one of the Special Assistance Plan schools in Singapore, located in the local community close to the Toa Payoh site.

Fund-raising in October 2007 was organized in conjunction with ST's 20th anniversary celebrations. US\$3,500 (S\$5,120) was raised from company and employee donations to support the program.



#### **Hydroponics at school**

ST Toa Payoh also has a greenhouse located on the rooftop of the site thanks to the members of the Facilities team, who applied their expertise to build it from scratch. This inspired First Toa Payoh Primary School to ask ST to build them a greenhouse for cultivating hydroponic vegetables – which means growing them without using any soil.

The project aims to create awareness among pupils about green issues and environmental protection as well as providing real-life educational sessions to learn about hydroponic agriculture.



## STMicroelectronics Campus ChangeMakers

STMicroelectronics Campus ChangeMakers is a Singaporean youth competition aimed at empowering young people from various backgrounds to implement creative projects that provide innovative and sustainable solutions to improve the community. This project embodies the belief that young people and students today are important stakeholders who can make a difference by initiating positive change within the community.

As the presenting sponsor of this project, STMicroelectronics played several roles in support of this initiative, including mentorship of the youth teams by ST employees, sponsorship for the piloting of social improvement projects and prize sponsorship. It supported this project in partnership with the Singapore Compact (a regional arm of the United Nations Global Compact) and the National Youth Council. The finals took place in July 2007.

The winner of the 1st prize was CLASP (Come Learn A New Sport - Pool). This project involved revamping a storeroom into a lounge and providing a pool table for the Handicapped Welfare Association so that members can learn the game. This project has a double objective, as not only are there social and recreational benefits, but also therapeutic ones, because playing pool helps develop muscular coordination for the disabled.

The 2<sup>nd</sup> prize was awarded to Life Avenue. This team created a new board game that addresses key social issues. It incorporates an array of real-life situations that might occur during a lifetime, including marriage, payment of bills and specific challenges that might be faced. It also helps develop an understanding about the needs of an ageing population. ST is now exploring various ways of helping this team to expand the reach of their innovative idea. This project is particularly relevant to present-day Singapore, which faces specific challenges due to its growing ageing population. The team is looking at ways to distribute the game in schools and offices as well as a possible partnership with a toy company.



ocial performance overview 0

## Performance overview

#### HIGH LEVEL OBJECTIVE

Support the company in adapting to its surrounding dynamic context

#### Disclosure on management approach

96% of our employees are covered by the performance indicators disclosed in this report. We took into account all our locations worldwide – manufacturing and non-manufacturing – to compile the 2007 results.

In 2007 a worldwide Human Resources Council was created. The Council meets on a quarterly basis, and brings together regional HR Directors, corporate HR Directors reporting to the Corporate Vice President for Human Resources as well as HR representatives from Manufacturing and Product Groups. It has proved to be successful in ensuring major HR programs are effective and consistently implemented and that they have a positive long-term strategic impact on the company as a whole.

— You can find the full disclosure on management approach in the html version of this report

#### **Accompanying company strategy**

The HR community is continuously involved in the development and support of the company's strategic planning process, which provides support for ST organizations that helps them manage day-to-day issues as well as future needs in terms of internal and external competencies. As part of this process, HR works in close collaboration with the organizations to review the challenges and opportunities observed locally, to identify corporate, organizational and regional development trends and to support appropriate actions at all levels.

Four ongoing keynote programs aim at offering close support for ST's strategic business programs and to ensure efficiency and flexibility of our organizations:

• The necessary transformation of organizations and the management of transitions, notably those brought about by changes in technology and the consolidation/deconsolidation of business segments through merger and acquisition

activities designed to reinforce our product portfolios;

- Developing expertise and leadership, focusing on an improved ability to identify and develop skills through greater competence and stronger involvement of managers;
- A competitive remuneration strategy, focused on recognizing the value of individual performance;
- Planning for and making available the key competencies necessary to achieve our business objectives. This is achieved through internal mobility, functional or geographic, by recruitment programs, and overall by bringing new blood into our team, including management positions.

#### **Employees by region and turnover**

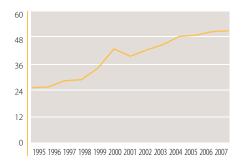
The overall company headcount has remained virtually stable in 2007. Our headcount in Asia continues to grow and now makes up more than 37% of total ST staff.

Most of our recruitment remains centered in Asia with all types of job profiles to support the ever-growing business needs. In Europe, where most of our R&D and competencies centers are located, skills in R&D and Product Development remain in high demand. Overall we have recruited a highly skilled workforce, with professionals (engineers and managers, exempt from overtime compensation) representing 30% of the total hires.

Company turnover has also remained virtually stable in 2007 (8.81% in 2007 compared to 8.79% in 2006). Our efforts to reduce or control the turnover in countries where this is traditionally high were successful in 2007, in particular in India and China where the rates dropped.

ST is still engaged in geographical adjustment activities to continuously adapt to, and support, the ongoing globalization of the market, including China's continuing economic expansion, the development of our industrial hub in Singapore, and the growth of our R&D activities.

#### Total headcount evolution | LA1 | ST12 |



Headcount	evolution	by region	LA1   ST12
-----------	-----------	-----------	------------

	2004	2005	2006	2007
Europe	22,593	22,405	22,527	22,341
Americas	3,180	3,120	3,277	3,122
Mediterranean	7,224	6,906	7,336	6,995
Asia-Pacific	16,532	17,602	18,596	19,685
Total	49,529	50,033	51,736	52,143

Hires by job type   O LA1				
	2004	2005	2006	2007
Engineers and managers	2,593	1,605	2,312	1,775
Technicians and administrators	1,167	749	1,154	774
Operators	4,446	3,189	4,088	3,663
Total	8 206	5 543	7 554	6 212

#### Average career length and turnover rate | O LA2 | STS6 |

	2004	2005	2006	2007
LA2 Average turnover rat	e (%) 6.6	7.8	8.79	8.81
STS6 Average career lengt (years)*	h 12	15	13	

(\*) Career length is the average length of employment of people leaving ST.

Thus the calculation of the career length is based on the average turnover of the last 3-5 years.

For information on the indicators presented in this section, please refer to the Reader's Guide at the beginning of this report

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#### Objectives 08

- Support local creation of operational action plans based on the Employee Engagement Survey results
- Create a set of high-level social objectives and targets to guide local activities
- Encourage all ST regions and sites to have a formal program for equal opportunities
- Document ST best practices in equal opportunities
- Document ST best practices in the implementation of human rights
- Support local sites in enhancing management systems for labor
- Create a quarterly dashboard of key indicators for human rights
- Create a methodology for evaluating the effectiveness of local community programs and initiatives

#### **Social Policy**

In 2006 we introduced a new Social Policy to support our code of conduct, the Principles for Sustainable Excellence. In 2007, work continued to align local operating procedures with the Social Policy, with a specific focus on the procedure for non-compliance reporting. This procedure aims to ensure that the appropriate organization, practices and resources are in place so that all employees are aware of and able to use different reporting channels to communicate potential cases of non-compliance relating to the Social Policy and the Principles for Sustainable Excellence.

For more information, see page 14

Several initiatives have also been launched at regional, national and site level to ensure that Human Resources staff are trained on key aspects of the Social Policy. For example, the regional Human Resources team in Asia Pacific worked in 2007 to prepare training modules designed to familiarize Human Resources staff with the Principles for Sustainable Excellence and the Social Policy and help them understand the implications of these key documents for HR management practices. The Human Resources team in France also worked on training courses in this context, focusing in particular on human rights. I **HR3** I

#### **Restructuring activities**

As shown in the table below, following the restructuring activities about which we reported in 2006, a new phase of restructuring activities in Morocco has been launched, which will involve over 2,000 employees. In line with the company asset lighter strategy, in 2007 we also announced the closure of our wafer manufacturing activities in the United States. This activity involves two manufacturing sites and over 2,000 employees. The table also shows the results of the closure in 2007 of our design office in Sophia Antipolis, France.

For more details on all of these initiatives see pages 22 and 23

# Restructuring plan results – US region Total number of people involved 2,049 2007 results (employees who have left ST during the year): • Voluntary resignation • Departure with retention package\*, severance\*\*, etc. • Termination for cause\*\*\* 22

#### Restructuring plan results - Morocco

Total number of people involved	2,154
2007 results (employees who have left ST during the year):	
• Transfer to another site (Bouskoura 2)	352
Departures due to natural turnover and termination of temporary contracts	77

#### Restructuring plan results – France (Sophia Antipolis)

Total number of people involved	28
2007 results (employees who have left ST during the year):	
• Internal mobility (in France and abroad)	8
• Employees who opted for 'mobility leave'	20
• Employees under 'Mobility leave' for whom an effective solution has been found by the end of 2007	18

- (\*) Retention package: this is meant to encourage employees to remain with ST and receive their salary while looking for a new job.
- \*\*) Severance: this is defined by ST's US policy. An employee gets one week of pay for every year with ST. After ten years in the company, this changes to 1.5 weeks of pay for every year.
- (\*\*\*) Terminations for cause: several reasons may lead to this situation, including lack of attendance, poor performance, etc. These employees do not get the retention or severance package.

#### HIGH LEVEL OBJECTIVE

## Ensure dynamic career progression, life-long learning and employability to meet employee and company needs

#### **Internal mobility**

In order to respond to our business challenges, we strongly encourage internal mobility across the company in general but also within specific regions. Today, there is fast and significant growth in this type of mobility, notably within Asia.

Our target is to fill 70% of our jobs internally. In 2007, 78% of jobs requiring experience were filled internally, compared to 61% in 2006. Experienced positions were mostly sourced internally since external recruitment was strongly controlled.

It is our policy to post all our jobs requiring experience internally to advertise internal career opportunities available to our employees and enable them to apply.

#### **Training hours**

In 2007 the average annual training hours per employee increased for professionals (engineers and managers, exempt from overtime compensation), returning to the target level of 35 hours per employee per year after the decrease in 2006, which was due to strong financial controls that affected training hours. Training hours for operators and non-professionals remained largely stable. However, the percentage of employees who benefited from training increased in 2007 to 48%, compared to 37% in 2006.

In 2007 our newcomer seminar training was adapted into local versions to make it more accessible for new employees, who are expected to attend this training within six months of joining the company.

In 2007, we have also been focusing on the quality of our training, taking into account employees' comments through the training industry standard Kirkpatrick assessment model.

For more information on training see page 25

#### **Promotion and people reviews**

In 2007, 62% of our professionals were assessed in a collective people review, compared to 60% in 2006. The collective people review goes one step beyond the regular annual performance appraisal, which all professionals perform with their direct manager each year to evaluate their performance and define the employee's career path accordingly. The people review involves a detailed review of each employee in a given organization, thus supporting career evolution and company effectiveness. Its implementation across the company is now well advanced.

We feel that the data for 2007 relating to the promotion rate is not reliable enough to publish. We will investigate this and reinstate the indicator next year if appropriate.

#### **Contribution matrix tool**

2007 saw the first significant results of this project. The job referential (the list of job functions and job families in ST) was entirely reviewed by managers and HR professionals and was updated according to the results of the review. This allowed us to make good progress with the second phase toward one of the goals of the project: worldwide job title harmonization.

The contribution matrix tool helps produce generic job descriptions by job function and by level, showing a clear career path for all key job functions. Career paths provide visibility on the future career moves that can be considered from a given position. The harmonization of job titles and job descriptions that results from this process also ensures a common language between the employee, the manager and the Human Resources department.

#### **Objectives 07**



Foster internal mobility: corporate target is to fill 70% of jobs requiring experience internally



Identification of key talents through people reviews



Harmonization of the job evaluation process through the contribution matrix tool

Internal mobility - jobs filled internally   STS14			%	
	2004	2005	2006	2007
Jobs requiring experience filled internally	61	85	61	

2006	2007
37	48
	37

 This indicator is particularly important as it shows how training is distributed among employees.

Average training hours   LA10				
	2004	2005	2006	2007
STS15 Professionals*	38	37	30	
STS16 Operators	67	80	91**	
STS17 Others (non professionals)	36	30	30	29
Total***	49	53	43	44

- (\*) Engineers and managers, exempt from overtime compensation.
- (\*\*) This higher figure is linked to the regular certification/re-certification of operators at least every 18 months.
- (\*\*\*) Including training on equipment and outside training

People reviews   LA12   STS21			%
	2005	2006	2007
STS21b Percentage of exempts assessed during collective people review (in the last 2 years)	43	59	62

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#### HIGH LEVEL OBJECTIVE

#### Ensure employee empowerment and engagement

#### Objectives 07



Ensure employee opinion survey actions are integrated in local action plans



Propose alternative employee opinion survey focusing on employee engagement



Design and implement new employee recognition process focusing on benefits to all stakeholders

#### **Unvested stock awards**

Since 2005, we have offered restricted Stock Award Plans, 'Unvested Stock Awards', which are designed to incentivize, attract and retain our executives and employees who contribute to our success, by aligning compensation with the evolution of our share price.

In 2007, we have maintained the focus on a selective panel of employees (35% compared to 34% in 2006).

#### Recognition

#### Corporate level

Every year ST top management recognizes collective and individual local achievements through its corporate recognition program, STAR: ST Annual Recognition. 2007 marks a major evolution in this process.

In previous years the achievements recognized were mainly focused on general creativity and technical innovation through teamwork. Now our value creation for stakeholders has become the foundation of the evaluation criteria. The examples of teamwork or projects submitted for evaluation need to show not only their alignment to overall company objectives, but also their response to stakeholder expectations. Applicants have to demonstrate the positive impact of their project on one or more stakeholders in order to get the highest company recognition: the CEO Award. This evolution reflects the essence of our company culture for Sustainable Excellence, which seeks to create value for all stakeholders.

After a three-step selection process involving the evaluation of over 80 applications by 23 managers from different organizations and geographical locations, and the review of 21 applications by the Corporate Vice Presidents and the CEO, 21 teams from different parts of the company received Bronze, Silver, Gold or CEO Awards. Individual employees received ABCD (Above and Beyond the Call of Duty) Awards.

#### Local level

Various programs exist at local site and organization level to recognize our employees' success in terms of results and process. They are implemented independently from the corporate STAR process but some organizations are adapting their programs to better take into account our stakeholders as well.

In 2007, fewer employees have been recognized but the budget was doubled to better reward the winning projects.

#### **Employee suggestion scheme**

We encourage our employees across the world to be aware of how they can contribute to the company's continuous improvement through the Employee Suggestion Scheme (ESS), which is managed at site and organization level using dedicated online tools or traditional suggestion boxes. Suggestions were traditionally encouraged to support technical manufacturing needs, but have evolved to cover many other areas of company performance.

In 2007, 77,402 suggestions were made showing a high level of involvement and engagement from our employees in the company's continuous improvement process. More than 21,000 suggestions were implemented.

#### **Employee engagement survey**

This survey will replace our former Employee Opinion Survey, which has been ongoing for several years and was last carried out in 2005. The survey is usually performed on an 18-month basis but has been delayed until early 2008 to respond to one of the results of the 2005 survey. Employees indicated that they expected to be more involved in the company's decision-making processes and it was on the basis of this finding that the survey has been transformed to reflect and ensure employee engagement.

For more details of the new Employee Engagement Survey, see page 27

Unvested stock awards   STS47			
	2005	2006	2007
Number of employees rewarded	7,189	6,000	6,300
Percentage of eligible population (%)	41	34	

Employee opinion survey   O STS28a				
	2003	2005	2006	2007
Overall participation rate	87	80	NA	
Overall satisfaction rate	65	61	NA	

Recognition   O STS26   STS28   O STS34				
	2004	2005	2006	2007
STS26 People recognized	49,553*	41,676*	77,390*	50,171*
STS28 Overall company recognition budget (Usk\$)	1,000	1,613	1,031	2,684
STS34 Accepted suggestions which were implemented (%)	54	57	39	62

Percentage of unplanned absenteeism*	3	3.05	
(*) As opposed to vacations and holidays which are typically unplanned absenteeism is the result of absence due to la and therefore cannot be planned and managed.			

2005

2006

%

Unplanned absenteeism | STS28b |

<sup>(\*)</sup> Can include multiple recognition for one employee over the year.

#### Ensure diversity and equal opportunities

#### **Diversity and equal opportunities**

Our code of conduct, the Principles for Sustainable Excellence, states that "recruitment, remuneration, opportunities for development and promotion must be based entirely on a fair assessment of ability and performance at every level". Our recruitment procedure specifies that race, color, age, political opinion, religion, gender, sexual orientation or national origin cannot be used as selection criteria.

Equal opportunities have featured in both of the recent training courses on Corporate Responsibility. The most recent of these, Principles Compliance training, provides detailed information on what is and is not appropriate behavior in this context and ensures that employees are aware of the communication channels available to them should they wish to report any potential non-compliance on this or any other topic.

The Principles for Sustainable Excellence also state that "ST organizations are expected to seek opportunities to enable disadvantaged individuals to achieve excellence in their roles" and ST "will enforce a zero-tolerance approach to incidents of discrimination or harassment of any kind".

Results in 2007 show a stable split in gender across the company, with a slight increase in the percentage of women at senior management levels and a stable percentage of disabled employees.

In 2007 ST also welcomed a new female member of the corporate staff reporting to the CEO. As Corporate Vice President, she is both Chief Compliance Officer and Executive Secretary to the Supervisory Board.



#### **Cultural diversity**

ST's competitiveness in a global context is built on respect for and encouragement of cultural differences. This is reflected in the fact that there are 87 nationalities represented in ST's workforce around the world and eight different nationalities in the corporate staff reporting to the CEO.

## Company strategy for gender equality and opportunities for the disabled

Following the decision to take a soft, cultural approach to developing a company-wide strategy for gender equality in 2006, ST's working group on human rights has continued the work of transferring good practices in France to other sites and regions.

In 2007, Italy was the first country after France to build on these good practices and develop a formal approach to equal opportunities at national level, starting with the creation of an Equal Opportunities Committee. The mission of this committee is to develop a strategy to achieve and maintain equal opportunities for women and men. It has two sub-committees: a core group with 12 members and an extended group, composed of a representative from each of the major ST organizations present in Italy, with a role to review and validate the activity carried out by the core committee.

The core committee's first objective is the analysis of relevant Italian data (site by site) in line with the Italian legal and social context. Practical actions will be defined in 2008 based on this analysis. ST Italy, like France, is also addressing the integration of disabled employees as part of its approach to equal opportunities.

With France and Italy formally engaged in equal opportunities programs, over 40% of ST's employees benefit from such

Equal opportunities, and notably gender equality, was identified as a key area for improvement by the sites that participated in the local top management gap-analysis workshops on the Principles for Sustainable Excellence. As a result, the area of equal opportunities was included as one of the top highlevel directions for all ST sites and organizations.

For more information on the workshops and objectives, see page 12

For information on ST's human rights activity, see pages 26 and 27

#### Objective 07

Share gender equality best practices among our regions

Nationalities in corporate staff   LA13   STS8		
	2006	2007
Different nationalities represented in the corporate staff	7	8

Gender split for professionals   LA13   ○ STS10				%
	2004	2005	2006	2007
Men-professional	81	80	80	
Women-professional	19	20	20	

Wome	en in management   LA1	3			%
		2004	2005	2006	2007
STS11	In senior management (Job grade 17 and above)	6.30	6.60	7.04	
STS12	In executive management (Job grade 19 and above)	3.80	4.10	5.65	5.92
STS12a	a In staff management reporting directly to site/senior organization manager	NA	9	11.75	

Gender breakdown	LA13   STS9			%
	2004	2005	2006	2007
Men	60	60	61	
Women	40	40	39	

Disabled employees   LA13   STS12b			%
	2005	2006	2007
Percentage of disabled employees	0.48	0.62	0.61

#### Proceed to deeper integration of human rights issues in and beyond ST

#### Objective 07



Support local sites to enhance management systems for labour

#### European Works Council

In accordance with European legislation, an agreement was 2003 between ST **Central Management** and the members of the European Work Council (EWC). This agreement, covering France, Italy, Spain, Germany, Scandinavia, Benelux, the UK and Malta, implements the EWC and rules governing how employees' representatives are informed on transnational subjects, which considerably affect the workers' interests (financial matters, company restructuring, etc).

## ST's commitment to and implementation of human rights

As a signatory of the United Nations Global Compact and a member of the Electronic Industry Citizenship Coalition (EICC), ST commits to respect and promote human rights within its sphere of influence, abiding by the United Nations Declaration of Human Rights and the core conventions of the International Labour Organization (ILO).

Our participation in the EICC and in Entreprises pour les Droits de l'Homme (EDH) gives us access to active business networks that provide tools and opportunities for good practice sharing and stakeholder engagement activities that support our implementation of human rights.

For more information on our implementation of the EICC, see page 58

For more on our participation in EDH and internal work on human rights, see pages 26-27

#### Freedom of association and employee-management dialogue | LA4 | STHR5 |

Considering that all of our European sites are covered by the European Works Council and a number of sites outside Europe (e.g. Morocco and Singapore) also have formal systems for collective labor negotiations, we calculate that in 2007, as in previous years, over 75% of our employees were represented by independent trade unions or other officially recognized representatives, or covered by collective bargaining agreements.

In 2007, the working time lost to strikes remained stable at 0.04%. The rate for 2005 was higher than usual due to countrywide strikes in Italy in the context of the renewal of the National Labor Contract

#### **Working time and overtime**

As in 2006, all of our regions and sites continue to work within the standard of 48 hours per week as regular work time. Overtime varies according to local legislation and culture, but always remains within the limit of a 60-hour week. Overtime leading to this 60-hour week is an exceptional, not a regular, occurrence and it is always freely chosen.

Compared to 2006, there has been an overall decrease of the average overtime per employee from 4.17 hours to 3.12 hours. Changes in individual countries or sites can depend on a variety of factors, including how work shifts are organized and agreements with unions and employee representatives.

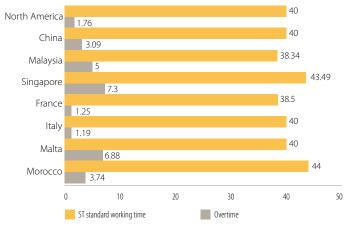
#### **Communication meetings**

ST continues to ensure healthy dialogue and interactions between management and employees, notably by the existence at every site of regular communication meetings. During these meetings employees are informed about ST's strategy and results and there are opportunities for employees to raise any questions with management and have an open discussion.

As an example of how this works in practice, at our site in Rousset, France, communications meetings follow a three-step process during which firstly senior site managers and then secondly all managers on site meet to discuss communication needs. These two stages prior to the third, site-wide, meeting are important, since much information now reaches employees very quickly and managers need to be prepared and equipped to answer questions and help employees understand news in its proper context.

The average number of communication meetings for all employees held at each site has increased from nine in 2006 to ten in 2007, reflecting the fact that this practice has been deeply rooted in ST's culture since the early 1990s.

#### Working time in selected countries | STHR4 | STHR6 |



#### Working time and overtime hours | O STS36 | STHR7 |

	2004	2005	2006	2007
STS36 Employees with regular work time less than 48 hours per week (%)	100	100	100	
STHR7 Average overtime per week (hours per employees)	1.79	1.24	4.17	

Communication meetings   STS34a			%
	2005	2006	2007
Average number of meetings per year in each organization or site during which management presents company/ organization/site results to all employees allowing time for open questions	10	9	

Working time lost to strikes	STS38			%
	2004	2005	2006	2007
Ratio time lost to strikes / time worked	0.04	0.15	0.04	0.04

#### Engage proactively with local community and society to create mutual value

#### ST's commitment to the local community

Engaging with the local community at each of our sites around the world has been a strong aspect of our culture since the 1990s. Many site-based initiatives and activities have a charitable aim, either social or environmental. Many of our sites also participate heavily in ST's Digital Unify program, led by the ST Foundation (see below).

For more information on the Digital Unify program, see page 29 For more examples of local community initiatives, see page 30

However, many other initiatives involving the academic community are closely connected to our core activities (e.g. research and development). Engaging with the local community in a variety of different ways is considered a vital activity by all of our sites in order to make business sustainable in every sense.

For more information on stakeholder engagement for R&D purposes, see pages 9 and 53-56

#### Partnerships with the academic community

As mentioned above, our stakeholder engagement in the local community includes strong, strategic partnerships with academic institutions, including for joint research and hiring purposes. In 2007, the number of partnerships in this area increased for the second consecutive year, reflecting the importance of this kind of activity for ST's success.

#### **Charitable donations**

In 2007 our charitable donations increased from US\$271,000 to US\$444,000. Our in-kind donations dropped from an estimated equivalent of US\$772,000 to US\$250,000. Donations are made directly by ST sites and both their amount and nature depend on the site's annual priorities and resources.

We feel that the data for the average number of hours donated per employee per year to non-business related activities is not reliable enough to publish.

#### **Corporate Responsibility awards**

In 2007, the number of recognitions or awards for excellence in areas related to Corporate Responsibility increased to 76 from 68 in 2006. This reflects our company-wide commitment to Corporate Responsibility through our culture of

Sustainable Excellence, which is translated into practice by the activities and initiatives of all of our sites around the world

This year these awards include the Sodalitas Social Award and the Singaporean Company Commendation, May Day Model Workers' Award. ST's production site in Ang Mo Kio, Singapore, was one of only two companies to receive this award in April 2007 for enhancing workers' employability.

For more details on awards linked to innovation, see pages 17 and 54

#### Some examples of local initiatives implemented in 2007

#### In Phoenix, Lexington, Livonia, Longmont and San Jose, **United States**

A fund-raising walk was organized by ST offices in these cities to benefit research into breast cancer. Employees raised thousands of dollars in donations based on the number of miles they walked, ran or swam.

Also at these same offices, every Christmas employees collect and donate new toys for homeless and poor children. Hundreds of toys and gifts have been given over the years to support this program.

#### In Agrate, Italy

A dedicated team at ST's production site in Agrate, Italy, organizes the collection of obsolete ST computers. In 2007, 250 (170 in 2006) used but functional computers were delivered to the local community, mainly for the benefit of schools and non-profit organizations.

#### In Toa Payoh, Singapore

In collaboration with the Handicapped Welfare Association (HWA), volunteers from ST's Information and Communication Technologies (ICT) department gave IT courses to 15 HWA members to help them upgrade their skills and prepare themselves for employment.

#### **STMicroelectronics Foundation**

As part of the Digital Unify program, aimed at bridging the digital divide, in 2007 645 trainers have been taught how to give computer courses and over 15,000 people in local communities have been trained, taking the total since the beginning of the program to over 40,000.

For more information, see page 29

#### Partnerships with the academic community | S01 | EC1 | O STS44 |

	2005	2006	2007
Partnerships with universities, colleges, schools	217	236	335

STMicroelectronics Foundation   S01   EC1			
	2005	2006	2007
Total new trainers	112	171	645
Total trainers from beginning of program	393	564	
Total trainees	7,945	12,915	15,118
Total trainees from beginning of program	12,060	24,975	40,093

#### STMicroelectronics donations | S01 | EC1 | 2005 2006 STS39 Total cash donated to charitable 1,645 271 associations (Usk\$) STS39a Estimated value of in-kind dona-

tions to community and society

772

655

Corporate Responsibility awards   2.1	STS43		
	2005	2006	2007
Number of recognitions or awards received for excellence in CR	85	68	

## Crolles'amazing progress in safety

INTERVIEW WITH ANDRÉ BOIS, SAFETY & SECURITY DIRECTOR, SITE DEPUTY DIRECTOR, CROLLES, FRANCE

The top management of our Crolles site, in France, decided to make safety a top priority for 2007. At the end of the year, close cooperation between Operations, Human Resources, Medical and Safety Teams has resulted in an outstanding improvement of their key safety indicators.





#### What has been the status of safety at Crolles over the last few years?

Until 2007, the Crolles site had never been exemplary in terms of safety results. Although industrial risks were correctly managed, there were a lot of 'domestic' accidents such as people falling, slipping or bumping against objects.

At the end of 2006, the Crolles safety results showed 1.40 for recordable cases (RC) - compared to ST's overall RC rate of 0.59. While ST's severity rate (SR) was 8.8, ours was 28.1, corresponding to 55 accidents and 1,102 days away from work for the Crolles site!

A strong course of action was clearly required at the site to improve our safety results and reach the goals defined by the Corporate Safety Target, which are 0.55 for RC and 7.5 for SR.

#### What challenges did you face in implementing your improvement program?

We did not encounter any major difficulties in improving our safety prevention program. However, the main challenge was to deploy an authentic and sustainable safety culture at the Crolles site involving the relevant functions and departments, including staff from Operations, Human Resources, the Medical Department and the CHSCT (Comité d'Hygiène, Sécurité et Conditions de Travail). Some adjustments of the safety system had to be made in order to involve the Operations managers more directly.

When there is an accident, Human Resources, the Medical Department and line managers are responsible for assisting the employee and, if necessary, formally logging the accident.

#### How did you achieve such good results over a one-year period?

At the end of February 2007, the Crolles safety results were already rather critical. So improving them was identified by local top management as a key program for 2007.

Previously, only the internal safety team was involved in this area of activity and we understood that we would not be able to reach the fixed objectives without working with other internal stakeholders (those mentioned above).

Our first step was to perform a benchmark - on ST sites and with other companies - to compare safety organization and working style. The program was then deployed through the following action plan:

- A key program of improvement by the site and safety management teams to involve operational managers who now have relevant individual performance objectives.
- · Increased communication through an awareness program for Operations employees, periodical information on safety results and the publication of Safety Best Practice Guidelines.
- Active participation of safety teams in several technical/operational meetings.
- · Reinforcement of risk assessments as a preventive measure to avoid intervention and the interruption of activity in the case of safety non-conformities.
- · Improvement of the analysis of accidents.
- · Review of procedures:
  - verifying whether some work-related accidents are genuine and the necessity of non-working days following an accident: and

- proposing to victims of accidents a temporary alternative position – often office-based – in order to reduce workday losses.

#### How has the situation improved?

At the end of 2007, we achieved 0.69 in our recordable cases rate and 11.44 for our severity rate, which represents an improvement of 51% and 59% respectively compared to 2006.

This outstanding improvement has been recognized by ST top management and has contributed to improving the company's overall safety performance. It has also been recognized by our customers, who pay close attention to these results.

The results have been achieved without any additional budget, and have actually contributed to obtaining significant cost savings.

#### How do you plan to make these good results sustainable?

Now our main challenge is to continue this improvement in order to reach our objective of zero accidents. We will go on conducting awareness and empowerment campaigns designed to remind all employees and on-site subcontractors that safety is a priority, and that the success of Crolles requires safety success.

In our experience, cooperation, involvement and healthy relationships are the key to success. Most of the actions we implemented in 2007 come from the good practices of our colleagues in other ST sites. We now call on all our colleagues to come and share our experiences and actions.

## Health plan deployment in Greater Noida

INTERVIEW WITH MANISHA PIYUSH, HUMAN RESOURCES ADMINISTRATOR FOR EMPLOYEE WELLNESS, GREATER NOIDA, INDIA

The Health Plan was announced to all ST employees in India in the first quarter of 2007. In order to get the highest participation from employees, as the available tests are based on voluntary participation, we decided to hold the check-up activities onsite at a check-up 'camp'.

Leading hospitals from Noida and Delhi were invited to submit proposals and after careful analysis, the Fortis Hospital in Noida was selected to undertake the check-up activities.

Employees were invited to register for the check-up camp through an e-survey. As some of the tests concerned were age- and gender-specific, all the registered employees were divided into relevant categories and subgroups. Each camp was spread over a period of four days.

Following the check-up camp, consultations with specialists - a cardiologist, gynecologist and general physician - were held onsite.

Three health talks were also conducted on the following topics: lifestyle management, cardiac risk factors and stress management.

See page 41 for a detailed list of tests offered within this program

#### Key figures

A total of five camps have been organized — three in Greater Noida and two in Bangalore Total ST staff covered by the Health Plan in India so far: 1,028 employees

Total ST staff in Greater Noida and Bangalore: 1,800 employees

#### Next steps for 2008

A series of at least three camps is being planne for 2008 to cover all other staff

## Maintaining a **Safe working culture** in Muar

INTERVIEW WITH HAMSAN KATIMON, SAFETY & HEALTH OFFICER, MUAR, MALAYSIA



At ST's PTM manufacturing site in Muar, Malaysia, 'Safe Working Culture' is the required attitude for each employee, which will in turn ensure safe work practices. In ST Muar's experience, the design and deployment of active, participatory programs at the plant level is the most effective way to create and maintain this crucial employee mind-set.

Some concrete examples of this local activity include the employees' requirement to sign a Safety Declaration and make sure they are aware of and understand the contents. This theoretical knowledge and understanding is complemented by practical machine safety checks, which put strong emphasis on personal responsibility. Safety awareness and training

for employees, another mandatory program, ensures that employees have the appropriate knowledge, skills and attitude.

At Muar the message is made very clear: safety is everyone's business. This also includes line managers being responsible for managing safety as well as their operational duties. In the event of an accident, the line manager must visit the scene of the accident immediately, along with the safety engineer and the duty manager, and he or she will also need to visit the medical services and interact with the doctors to define a Return to Work program.

Over time, ST's Muar site has progressed from a prescriptive approach – including engineering controls, rules and enforced discipline – to a participative and integrative approach, including, for example, the signing of the Safety Declaration, the Employee Suggestion Scheme, and a dedicated Safety Week.

Safety culture is about people and their acceptance and implementation of all of these activities. We strongly believe that a safe working culture is an important element that will help us achieve a zero accident rate.



In 2001, ST launched the process to certify all of its manufacturing sites around the world to the internationally recognized Health & Safety standard, OHSAS 18001. Within two years, all manufacturing sites were successfully certified. In 2004, four non-manufacturing sites were also certified to OHSAS 18001 on a voluntary basis.

In 2007, ST decided to go further by launching the certification process on its Greater Noida site, in India, one of our two major non-manufacturing sites specialized in R&D and Design activity, together with Grenoble, France (which was certified in 2004).

The journey for ST Greater Noida operations began with a gap assessment carried out by the Corporate Safety & Loss Prevention Manager in June 2007. Based on this evaluation we established a roadmap defining the key activities we needed to carry out before the certification audit

With the OHSAS certification audit planned for December 2007 the big challenge was to ensure that all these activities were carried out within an aggressive six-month timeline. Numerous initiatives were taken to ensure the awareness and involvement not just of all employees at the site, but of the onsite subcontractors and daily visitors as well.

The audit conducted by Bureau Veritas Certification (BVC), was concluded with the successful recommendation of ST's Greater Noida site for OHSAS 18001 certification. Three minor non-conformities were reported by BVC, which have since been successfully resolved to the satisfaction of the external auditors. The formal certificate will be issued in January 2008.

Reviewing the process, we believe we were very successful because of existing good practices relating to Health & Safety at the site and thanks to ST's company-wide experience and expertise in setting up and maintaining world class Health & Safety management systems.

40 I Health & Safety performance overview

## Performance overview

#### HIGH LEVEL OBJECTIVES

Ensure a safe and healthy workplace Contribute to employee health beyond the workplace

#### Objectives 07

Reduce recordable cases rate by 10%

Reduce severity rate by 10%

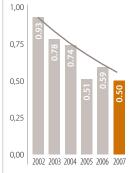
Eliminate 120 remaining cases of 'significant' chemical workstation risk



Deploy our Health Plan to cover all employees

**Certify our Greater** Noida design site to OHSAS 18001

#### Recordable cases rate | LA7 | O STHS1 | 9.1 |

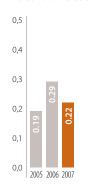


ST's recordable cases rate for work-related injuries and illnesses decreased by 16% in 2007 compared with 2006.

2007 recordable cases rate = 0.5 recordable cases per 100 employees.

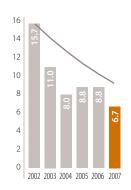
— 10% reduction per year using 2002 as baseline. (Decalogue target)

#### Recordable cases rate (domestic) | LA7 | STHS12 |



RC domestic rate decreased by 25% in 2007 compared to 2006.

#### Severity rate | LA7 | STHS2 | 9.3 |



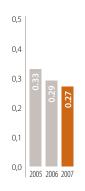
ST's severity rate for work-related injuries and illnesses decreased by 24% in 2007 compared with 2006

2007 severity rate = 6.7 days lost\* per 100 employees.

— 10% reduction per year using 2002 as baseline. (Decalogue target)

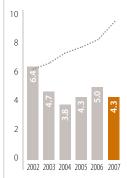
(\*) In 2002, OSHA rules changed so that the days away category now includes both work and non-work days lost due to injury or illness.

#### Recordable cases rate (industrial) | LA7 | STHS11 |



RC industrial rate decreased by 7% in 2007 compared to 2006

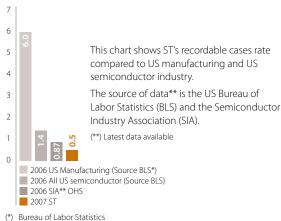
#### Injuries/Illnesses cost | LA7 | STHS6 |



ST's work-related injuries and illnesses cost decreased by 15% in 2007 compared with 2006.

Results without action Savings over five years =

#### Recordable cases rate benchmarks



(\*\*) Semiconductor Industry Association

#### Lost work day case rate for ST subcontractors | LA7 | STHS13 |

2007 Lost work day case rate 0.99

For information on the indicators presented in this section, please refer to the Reader's Guide at the beginning of this report

#### Disclosure on management approach

We manage our Health & Safety performance using OHSAS 18001, which is widely seen as the most rigorous international standard for occupational Health & Safety. All of our 14 major manufacturing sites and 6 non-manufacturing sites have been certified to OHSAS 18001 in the period since 2003.

Question and the full disclosure on management approach in the html version of this report

Our performance data presented in this section covers 89% of our employees. The remaining 11% work in functions and locations unrelated to manufacturing.

#### 2007 Health & Safety results

We are pleased to report that since we began keeping company-wide records in 2002, there have been no work-related fatalities within ST, and there were also no Health & Safety fines or penalties. | LA7 |

In comparison with results in 2006, 2007 showed a strong improvement of our performance with a 16% decrease in our recordable case (RC) rate for work-related injury and illness, better than our 10% target. The overall improvement trend since 2002 is close to 50%, or more than 10% per year.

Our severity rate decreased by 24% in 2007, better than our 10% target. The overall improvement since 2002 is an impressive 57%. | LA7 | > STHS2 |

The impact of these results can be seen in the decrease in the estimated cost to the company by 15% in 2007 compared with 2006, while the improvement since 2002 has resulted in a US\$5.3m saving this year and a total of US\$18.2m savings over five years. The dotted line on the graph represents the performance we would have achieved without any action, taking 2002 as a baseline. This estimate includes the following costs: wage, medical, indirect wage, administrative, material losses/damage, production and other hidden costs. I LA7 | STHS6 |

#### So what explains the decrease in our recordable cases rate in 2007?

Our reporting results show that there has been a 7% decrease in the rate of 'industrial' recordable cases, that is, cases involving chemicals, mechanical apparatus, machines or machine parts, or electrical current, etc. The overall decrease in recordable cases rate is also due to a 25% decrease in 'domestic' cases, that is cases involving a fall or slip or being struck by or against a door, chair or building, etc. In 2007 we continued actions and programs that were launched in 2006, in particular in the area of communication and training to help raise employee awareness, prevent such 'domestic' cases and also prevent other injuries.

We have also improved our accidents analysis and management. We have launched two additional Behavioral Risk Improvement programs, in which both managers and unions are involved, and we have also launched specific audits and working team activities. Each year we continue to improve our management systems by improving our hazard identification, risk assessments and risk control, and with other actions like the promotion of safety suggestions from all employees and internal or external benchmarks.

#### Contractors' safety indicator | LA7 | STHS13 |

In 2007, for the first time we implemented a worldwide safety indicator for our on-site subcontractors (covering

about 5,200 people). We tracked injuries with lost time that occurred within the perimeter of our manufacturing sites and of our three main non-manufacturing sites. Our first reference value is 0.99, and our target is to decrease this rate by 10% in 2008.

#### Chemical workstation risk | STEV67 | STEV68 |

In 2005 over 20,000 workstations were assessed and 1,400 (7%) were identified as falling into the 'significant risk' category. In 2007 we reached our goal to have zero cases of 'significant' risk related to chemicals in our workstations (our internal standards are more stringent than any local legislation) by successfully eliminating the 120 remaining cases that had not been finalized in 2006.

For new chemicals, we have adopted an approach based on precautionary principles when assessing the Environment, Health & Safety (EHS) risk. Any new chemicals are screened and evaluated and must obtain the approval of the site chemical committee before being used onsite. In this evaluation, strict engineering controls, hazard identification, collective protective equipments and personal protective equipments are taken into consideration. This approach will ensure the prevention of significant risk in the future.

### ST Health Plan: Contributing to employees' health beyond the workplace | LA8 |

Launched in 2006, our company-wide Health Plan is designed to go beyond the traditional concept of safety, working to protect the health of our employees inside and outside their workplace. Programs include early diagnosis and disease prevention efforts, such as clinical screenings and immunizations but also education and information. The plan ensures that a variety of tests and services are available to 100% of ST employees on an entirely voluntary basis. Every country in which an ST site is present – including a site with just one person – has a tailored selection of procedures so that employees have access to tests that are not automatically available to them through national health services.

In 2007, all remaining local site plans were validated by the Corporate EHS department in order to ensure that they are in line with the overall ST Health Plan. The budget and support to bridge the gap between local practices and the ST Health Plan objectives was ensured. We are proud to publish the following results regarding the deployment of this plan in all of our sites and locations worldwide.

## The following tests have been done in 2007

- 23,700 check-ups;
- 17.000 blood analyses:
- 1,700 mammograms;
- 2,800 pap smear tests;
- 6,300 electrocardiograms;
- 8,500 chest x-rays;
- 1,100 prostate cancer screenings;
- 1.400 colorectal cancer screenings.

#### **Awards**

We won a Health & Safety Award in Shenzhen, China from the FFTZ (Futian Free Trade Zone) Safety Committee Office for Health & Safety Management.

## Objectives for 2008

- Reduce recordable cases and severity rates by 10%.
- Reduce the rate of injuries with days lost for our contractors by 10%.
- Health Plan: ensure 35,000 employees benefit from available tests and services.
- Deploy a new tool to record, share and investigate work-related injuries and illnesses.

For more information
on our Health & Safety
performance and more details
on the indicators
| LA6 | LA7 | LA9 |
STHS7 | STHS8 | STHS9
| STHS10 | STHS12 |
see the html version of this
report

## How do we manage our hazardous waste? Waste



Waste management is a key area of concern for each ST site, as improper activities, from collection to final disposal, could lead to a negative impact on human health and the environment. For this reason a very strict control is maintained over the whole process and ST's Environment and Health & Safety Decalogue has ambitious targets to increase reuse and recycling ratios, and to identify the most appropriate solution for final disposal, thus avoiding sending waste to landfill.

The two concrete examples here illustrate our approach to hazardous waste management at our production sites: in Rousset (France) for Front-end activity and in Kirkop (Malta) for Back-end activity.

## Waste management in Kirkop

INTERVIEW WITH RITIANNE SCHEMBRI, ENVIRONMENTAL CHAMPION, KIRKOP SITE, MALTA



The waste management practices adopted at ST's production site in Malta aim to meet the ST Decalogue objectives and at the same time minimize the impact of our production on the Maltese islands. The processes followed are in accordance with strict waste management principles including our objective of sending zero waste to landfill.

The first important step is waste separation. We have an onsite team dedicated to the separation and recording of the different kinds of waste generated. This ensures effective subsequent waste management.

During 2007, various milestones were achieved in waste management. Of particular interest are our practices for resin cull waste and hazardous

Resin culls result from molding activity (semiconductor device encapsulation with epoxy resin). After some investigation, it was found that resin can be mixed with concrete to make a useful flooring material and with gravel for filling. Apart from the benefit of recycling the resin, this also helps to minimize the use of a natural source of gravel.

The hazardous waste generated on site includes batteries, used toners, cartridges, oils, solvents and sludge resulting from the production process:

- Sludge results from the treatment of electroplating wastewater. Water is cleaned and separated from a mixture of metal compounds. The first step is to reduce the volume of sludge by drying. After drying, the sludge is sent to another EU country as a powder in order to extract metals. This is done following the strict EU regulations that cover the movement of such materials. This recycling process turns the metal-bearing waste into a valuable metal concentrate and is given to smelters. The smelters use this metal concentrate in their daily production.
- Used oils and solvents are collected by an authorized local company. Oils are treated by centrifugation, and the resulting clean used oil is mixed with virgin oil and used as a
- Batteries are collected through a scheme organized by a company in Malta.

Toner and ink cartridges are returned to the supplier to be recycled.

## management in Rousset

ENVIRONMENTAL ENGINEER, ROUSSET SITE, FRANCE



Our installations have been designed to optimize waste treatment. The production tools are connected to dedicated drains in order to collect specific exhaust liquid chemicals. Solid waste is collected as close as possible to where it is generated – for example, we have used battery and ink cartridge collection points throughout

Our main focus in waste management is to separate hazardous and non-hazardous waste and to reach our Decalogue targets.

The final disposal of waste can be achieved in the following ways, in order of preference:

- · recycling or reuse of the generated waste;
- · burning with energy recovery; or
- · incineration without energy recovery.

For each type of hazardous waste (liquid and solid), we try to find the best solution from among the available opportunities.

An example of hazardous liquid waste is exhaust solvents. These are recycled in cement factories in the place of fuel to produce heat for their ovens. The cement factory thus consumes less fuel by using the burning capability of our solvent waste, which is thus recycled as a raw material.

Solid hazardous waste includes batteries, ink cartridges and light bulbs. At ST's Rousset site, our ink cartridges are refilled and resold on the market under a new brand. Light bulbs are completely recycled, as are all metals from batteries.

We are responsible for the waste we generate until its final disposal so we are very selective when choosing suppliers and we impose very strict rules on their waste management. We have a process for the complete assessment of suppliers including site audits, permit validation and certification follow-up to ensure real recycling of

ST Decalogue: www.st.com/stonline/company/cr/2006/ environmental/dec\_ing.pdf

## An ST employee at the Nobel Prize ceremony

INTERVIEW WITH FRANCESCA ILLUZZI, MATERIAL CONTROL AND QUALITY AND ENVIRONMENTAL PROJECT MANAGER, AGRATE, ITALY

Involved in various European and worldwide Environment and Health & Safety groups, in 2007 Francesca Illuzzi attended the awarding of the Nobel Peace Prize to the IPCC for her participation in the research of this organization.



#### How did you get involved in the **Intergovernmental Panel on Climate** Change (IPCC)?

Since 1997 I have been involved in a European committee forming part of the European Semiconductor Industry Association (ESIA), and I have been working on a team for the reduction of perfluorinated compound (PFC) emissions. I am still currently the chairwoman of this group. In addition, I was also involved in an Environment, Health & Safety task force created within the World Semiconductor Council. All of the regional associations from Europe, Japan, the United States and Taiwan were contributing and we had set up the target of reducing PFC emissions in the semiconductor industry by 10% by 2010, based on the 1995 values. I joined the IPCC in 2000 and collaborated on writing guidelines on PFC emissions for the semiconductor industry.

Each national government nominated someone for this collaboration; this is why I received, together with other scientists, the invitation from the Italian Environment Minister to the Nobel Prize ceremony.

#### How did ST benefit from your involvement in the IPCC?

It really is a win-win experience. I started my career in ST as a process engineer focusing on the production process and more specifically the use of chemicals and gases. This experience gave me the opportunity to be involved in international activity and I was able to propose some practices directly from the field I work in, which could be adopted at a wider level. Within these international groups, I could really share

experience and benefit - on behalf of ST - from benchmarking with other major companies. So as I see it, ST has both benefited itself from these activities and been able to contribute to creating environmental solutions at a global

Working in a large industrial company like ST, I really feel we can contribute to improve global environmental protection. We have several ways of doing this, such as reducing the use of chemicals and gases, using gases that have a lower greenhouse impact and developing abatement tools. We can set up very concrete actions and get results.

#### What does participating in the Nobel Peace Prize mean to you, and what's next?

I felt very pleased and proud to see my work recognized and appreciated at a global level. I now hope that it will help change things and that it will contribute to improve environmental protection.

For the future, I would like to stay involved in these kind of activities as I am also working with other external stakeholders. I also hope we will be able to enlarge the scope of our work to include Health & Safety issues.

As I will be moving soon to Numonyx, the new Flash memory joint venture between ST, Intel and Francisco Partners in Flash memory activity, to work in a similar field, I hope that they will take advantage of this experience and my areas of competence. Recently I have had the chance to be involved in the due diligence activity preceding the creation of the new company and I really enjoyed this experience. We will see what comes next!



Wafers, which are thin slices of silicon crystal, are the basic material used in the production of semiconductors, otherwise known as integrated circuits or 'chips'. In our daily activity, some wafers must be discarded if they don't meet high standards of quality control, to avoid quality problems in the final product.

In our determination to reduce waste, ST has identified some companies that can recycle these silicon scraps to produce solar panels. All discarded wafers are collected and sent to these solar panel producers, who put the scraps through a treatment process to remove any remaining resin production process.

The recycling of silicon scrap wafers for solar panel production consistently reduces the energy consumption required for the production of solar panels, thereby supporting the achievement of two environmental objectives: the reduction of waste in the semiconductor industry and the reduction of energy use and resulting  $CO_2$  emissions in the solar panel industry.

## A life-cycle view of ST's efforts to

Since the early 1990s, ST has integrated the issue of climate change as a key element of its environmental policy and objectives. Constant efforts have been made to limit our impact through a focused and multi-faceted strategy that takes all aspects of the value chain into consideration and seeks to gain results through collaboration with our stakeholders.

Like every company, ST functions as an open eco-system. It needs external inputs, like energy and raw materials to operate its manufacturing processes, but its production of components, which are used in a wide variety of electronic applications, also generates less desirable outputs, such as waste, CO<sub>2</sub> and other emissions.

These inputs and outputs have environmental impacts, one of them being a contribution to climate change, which we consider a major global challenge requiring the focused, consistent efforts of all social actors to alleviate its alarming impact on our planet.

ST integrated a formal, structured approach to climate change into its environmental policy in the early 1990s. Working with the World Business Council for Sustainable Development (WBCSD) at that time helped us to define the areas for action and improvement relating to CO<sub>2</sub> emissions and other greenhouse gases (GHG). We have been measuring these impacts with our own indicators since 1995, when we published our first Environmental Decalogue. Our reporting on performance has also consistently evolved in line with the Global Reporting Initiative (GRI) guidelines since 2002.

This illustration aims to provide an overview of the impact of our activities on climate change and of the life-cycle approach we take to reducing our greenhouse gas emissions. More details of our performance can be found in the following pages of our environmental performance overview section.

#### Acting on the supply chain

Since 1999 we have strongly encouraged our suppliers to become ISO 14001 certified and EMAS validated, and we have supported them with training courses on environmental awareness. In 2007, 80% of our suppliers and 93.5 % of our subcontractors were ISO 14001 certified.

More recently we have adopted the EICC Code of Conduct – which includes a focus on air emissions – as our official supplier code of conduct and we are progressively deploying it to our suppliers and subcontractors.

Our participation in the EICC and our routine engagement with our customers allows us to monitor and understand the environmental needs of our business partners, who are increasingly concerned about climate change

Our Environmental Decalogue includes an objective to progressively increase our purchase of green or CO<sub>2</sub>-free energy and to increase our use of renewable and alternative energy. In 2007, 28.6% of our purchased energy was CO<sub>2</sub>-free, including nuclear energy, and 3% was green (nuclear energy excluded). Our wind farm in the South of France and photovoltaic and solar thermic panels at several of our sites contribute to help us achieve this objective.

For information about the EICC, see pages 58 and 59

#### **Acting in our manufacturing operations**

Approximately 70.3% of our global energy consumption comes from primary energy (fossil fuels), so the reduction of consumption of energy used plays an important role in limiting the impact on climate change. To meet our Decalogue target and annual roadmaps, we have been consistently reducing our energy consumption per production unit. Today, thanks to clear targets, strong efforts and the spreading of good practices among our sites around the world we have decreased consumption by 47.7% since 1994, on average over 5% per year.

Perfluorinated Compounds (PFCs) are chemicals used in our manufacturing activities that have a very long atmospheric lifetime and high Global Warming Potential (GWP). Consequently, even if our consumption of PFCs is relatively low, their impact is significant and requires action to reduce the CO<sub>2</sub>-equivalent emissions that they produce. Through our ambitious Decalogue target to reduce net PFC emissions and our annual roadmap we have made significant progress in this area, notably through point-of-use abatement systems and using alternative substances where possible. In 2007 our emissions due to PFCs decreased by 34% compared to 2006.

#### **Acting on logistics and transportation**

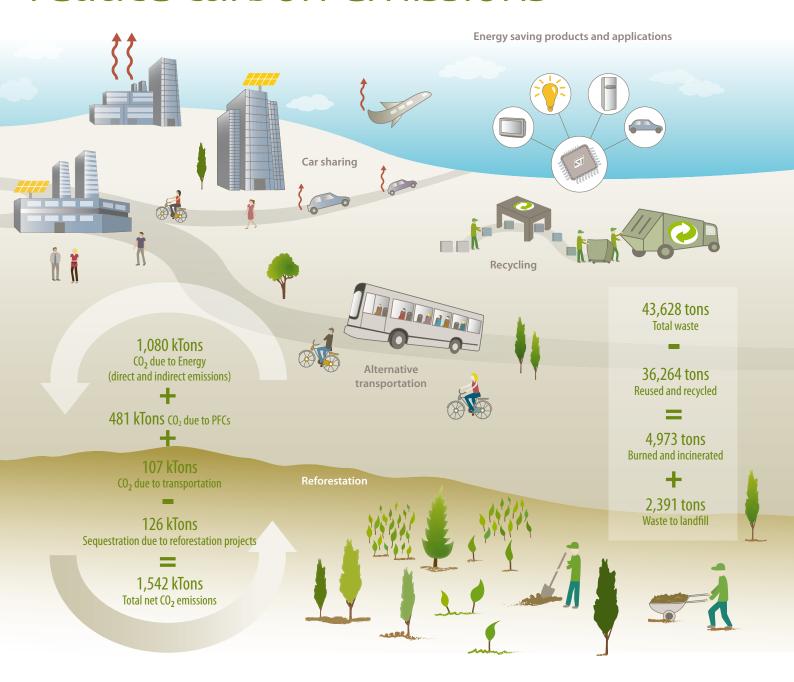
The semiconductor market is highly dynamic and requires fast delivery to market, which often means using planes to get our components



to their destination. However, our products are quite light, so overall CO2 emissions linked to transportation remain rather low. We estimate that all transportation linked to our activities (including employees on business trips and traveling from home to work) represents only 6.4% of our total CO<sub>2</sub> emissions.

As part of our culture of Sustainable Excellence in everything we do, several local initiatives have been launched over the years to reduce the impact of employee travel to work (for example, through car sharing, bicycle services and innovative public transport schemes), notably in Grenoble and Rousset, France, and Agrate and Catania in Italy. | EN7 |

## reduce carbon emissions



#### **Acting on our products**

Design for low energy consumption is a routine feature of our product design and development process, both in terms of the energy used by the ST component and the energy-saving characteristics that the ST component brings to the final electronic appliance.

Many of our products are dedicated to power management – from components in domestic electronic appliances like refrigerators, televisions and washing machines to industrial power management, lighting and automotive applications – and ST is recognized as a world leader in this domain. While our components are sold to be used in products that consume

energy, very often ST technology makes the difference by ensuring considerable reductions in overall energy consumption. As an example, if all the refrigerators in Europe used ST technology in their motors, the world would save 9,000 GWh and 5 millions tons of CO<sub>2</sub> per year (the equivalent of a medium-sized power plant or 1 million cars each traveling 30,000 km per year).

#### Acting on our waste | EN22 |

ST is committed to recycle and reuse its waste: in 2007 83% of all waste was recycled or reused. The benefit of this action is two-fold: it reduces the waste incinerated and sent to landfill (only 5.5% of ST's waste was sent to landfill in 2007),

translating into lower CO<sub>2</sub> and CH<sub>4</sub> emissions. The new products and materials obtained thanks to recycling and reuse also require less energy consumption during their creation and therefore emit fewer greenhouse gases during the recovery process.

#### Reforestation to offset our CO<sub>2</sub> emissions

Over the past 12 years, STMicroelectronics has planted 10 million trees in different reforestation programs in Morocco, Australia, USA, France and Italy. The forests planted sequester carbon emissions, resulting in an overall reduction of 126,000 tons of CO<sub>2</sub>, the equivalent of driving around the world 29,000 times with a gasoline-powered car!

## Performance overview

#### HIGH LEVEL OBJECTIVE

Maintain top class management systems for environment

#### Objectives 07



Maintain all sites' certification to ISO 14001



Maintain all sites' **FMAS** validation

For information on the indicators presented in this section, please refer to the Reader's Guide at the beginning of this report

#### Disclosure on management approach

We have a corporate Environment Health & Safety Steering Committee and each manufacturing site has an EHS Steering Committee responsible for implementing the Corporate EHS Policy. Performance indicators for Environment cover 100% of manufacturing sites.

You can find the full disclosure on management approach in the html version of this report

#### Environmental burden methodology | EN16 | EN20 |

Since 2001, net emissions to air and water are reported using the Environmental Burden methodology, to give a complete overview of the environmental impact of ST's activities, independently from the growth in production capacity. The last three years are reported in the table below. Some pollutants, such as fine powder and ashes are excluded because they are not produced as a result of our activities. In 2007 we succeeded in reducing our impact on eight out of ten parameters.

#### Emissions to air | EN16 | EN17 | EN19 | EN20 |

Our global warming indicator for 2007 shows a significant decrease (-15%) due to a sharp reduction in direct emissions related to manufacturing activities – thanks to considerable investments in point-of-use abatement systems for Perfluorinated Compounds (PFCs) – and a consistent reduction of indirect emissions due to energy-saving activities.

See page 51 for details of the reduction in greenhouse gas emissions In 2007 the indicators for Volatile Organic Compounds impact, Photochemical Oxidant Creation and Atmospheric Acidification decreased as a result of some new abatement systems, solvent recovery and improved process efficiencies. However, because of process changes, such as new sub-micron processes, which consume more chemicals (including ammonia), our Air Emission Toxicity increased slightly.

#### Emissions to water | EN21 |

In 2007 our emissions to water decreased slightly across all four parameters.

#### Environmental certification | 10.3 | 10.4 |

All 14 major manufacturing sites maintained ISO 14001 certification and EMAS validation in 2007, reflecting the robustness of our environmental management systems. All of our sites have been fully certified for over ten years.

#### Compliance with environmental laws and regulation | EN28 |

In 2007, as in 2006, there were no fines or non-monetary penalties imposed on any of our locations or sites world-

#### Environmental incidents 2007 | EN23 |

A minor case of soil contamination by solvents occurred in Tours, France, in 2006. Investigations were completed in 2007 and remediation is ongoing.

The groundwater organic contamination identified at our site in Rennes, France, in 2006 has been investigated in collaboration with local authorities. A remediation plan will be launched in early 2008.

None of these incidents has generated any fines or penalties.

#### **Environmental burden: net values**

**Emissions to air indicators** Units 2005 2006 2007 563,363 Global warming\* MTCE 478,884 626 420 Ozone depletion Kg R11 Eq 78 135 171 VOCs Tons 311 290 262 72,951 Atmospheric acidification\*\* Kg SO<sub>2</sub> Eq 81,509 58,178 Photochemical Oxidant Creation Kg ethylene Eg 46,767 65,974 15,761 Air emission toxicity\*\*\* Kg PH₃ Eq 7,532 3,737 4,881 Emissions to water\*\*\*\* Eutrophication Kg [P+N] 387.051 385 031 381.889 Ka COD\*\*\*\*\* 443.870 354.965 351,967 Aquatic oxygen demand 13,279 Heavy metals to water Kg heavy metals 17,522 13,277 Aquatic ecotoxicity Kg Cu Eq 11,490 13,964 10,398

- Includes direct greenhouse gas (GHG) emissions from our manufacturing plants and indirect emissions from energy consumption and transport, reported in Metrics Tons of Carbon Equivalence (MTCE). Does not include GHG emissions from controlled manufacturing sites, subcontractors and foundries.
- From 2006, we have included in our indicator the emissions linked to ammonia and we have recalculated the result for 2004 and 2005 accordingly.
- Emissions of substances are considered only if they exceed the minimum threshold of 3ppm, expressed in phosphine equivalent. For Volatile Organic Compounds, Atmospheric Acidification, Photochemical Oxidant Creation and Air Emission Toxicity the Particulate Matter is not covered.
- (\*\*\*\*) Domestic waste water is included.
- (\*\*\*\*\*) Total Chemical Oxygen Demand (COD).

#### **Environmental awards 2007 | STEV19 |**

In 2007, ST won 23 environmental awards. 15 of our sites received the Sony Green Partner Certificate (including 13 of our 14 major manufacturing sites) for the quality of their environmental management.

#### Phoenix, United States:

- Blue Sky Award: for outstanding environmental excellence to promote clean air manufacturing; and
- Environmental Stewards Award for Outstanding Support, for our contribution to environmental education, awareness, support and performance.

#### Longmont, United States:

- Tom Brock Award, for recycling 100% of our waste and getting 100% of our power from wind generation; and
- · Certificate of Environmental Accomplishment, for our participation in a recycling program to save trees.

#### Agrate, Italy:

- One ST colleague shared the 2007 Nobel Peace Prize as a member of the IPCC (see page 43 for more details); and
- Sodalitas Award (see page 54 for more details).

#### Carrollton, United States:

• The Environmental Distinction Award for outstanding environmental practices.

#### Grenoble, France:

• The Mobility Trophy, recognizing the significant increase in public transport users among the site's employees.

US\$290m saved

in 2007

#### HIGH LEVEL OBJECTIVE

#### O Contribute to company efficiency and financial performance

#### **Environmental accounting**

The table below presents the total costs versus savings for the three key resources used in our industrial processes (energy, water, chemicals). The consistent year-on-year increase in savings is due in part to our constant efforts to reach our Decalogue objectives (in particular to save natural resources), and in part to the increased production activity, which leads to improved eco-efficiency. In 2007 our total savings increased to US\$318m from US\$237m in 2006, leading to net savings of US\$290m in 2007 once costs are deducted, well above our 2007 objective.

The costs referred to here include all environmental expenses for water, waste water and air treatment, recycling of water and chemicals, waste transportation and disposal, as well as costs relating to environmental management systems, audits, permits and remediation. They also include sampling and analysis of water, waste water, recycled chemicals, ground, air and external noise as well as the depreciation of equipment and investment in the upgrading of environmental facilities.

#### **Environmental investments**

Despite the strict control of capital expenditures in 2007, environmental investments have been increased compared to 2006 in order to reach our objectives for the reduction in carbon emissions due to Perfluorinated Compounds (PFCs) and for improved energy conservation. A total of about US\$8m was invested in equipment upgrades and improvements to reach these goals. These investments only cover expenses incurred at the company level for upgrades of specific environment-related equipment, installations and processes. Some additional investments of this kind are forecast for the coming years to continue reducing our impact on the environment by installing PFC abatement systems in Agrate and Catania, Italy, and in Ang Mo Kio, Singapore, and by installing waste water treatment plants in Rousset, France, Ain Sebâa, Morocco, and Muar, Malaysia.

Additional investments are made by manufacturing sites in state-of-the-art manufacturing equipment that will both reduce the impact on the environment (e.g. reducing energy

consumption) and increase monetary savings over a period of several years. These investments are not included in the US\$8m reported here.

#### 

ST's programs to reduce the use of energy, water and chemicals in all sites are the foundation of our longstanding ecoefficiency approach to environmental stewardship and they have allowed ST to save around US\$1,200m over seven years. Once established and identified in any given site, environmental best practices are deployed in other manufacturing plants and building installations across the company. Most of the projects have a pay-back threshold below three years, meaning that the money invested to increase equipment-related and other kinds of efficiency is retrieved, usually within a three-year period.

As part of our culture of spreading best practice across the company, many of the resource-efficient projects described in our 2006 and earlier reports have been implemented in other sites in 2007:

- Free cooling systems were installed in our Agrate and Catania sites in Italy.
- Water recovery was put in place to reduce water draw down in Agrate.
- A second counter current air water exchanger (radiator) was installed in Kirkop, Malta. It will lead to reductions in water consumption, chemical consumption for equipment efficiency and energy consumption.
- The recovery of used water (from sawing and cooling) was put in place to reduce the water draw down in Ain Sebâa, Morocco.
- At our Shenzhen site in China, the molding shape of semi-finished products was modified in order to reduce the quantity of molding resin and scrap parts.
- And our Muar site in Malaysia modified its waste water treatment plant process to increase the quality of discharged water so that it can be recycled.

reduce the impact on the environment (e.g. reducing energy	

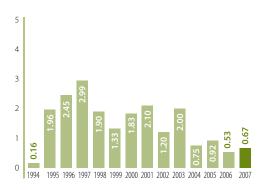
Environmental costs versus savings   EN30   STEV8   STEV35   STEV58							US\$m
Indicators	2001	2002	2003	2004	2005	2006	2007
Total costs	30	32	35	35	34	35	28
Energy savings	26	48	69	91	107	129	201
Water savings	7	11	15	19	22	26	27
Chemical savings	21	35	48	64	74	82	90
Total saving	54	94	132	174	203	237	318
Balance (cost savings)	24	62	97	139	179	202	290

The method used to calculate the savings shown in this table is the following:

- 1) we set a baseline using the 1994 model with the assumption that there are no installation enhancements:
- $2) \ \ this \ baseline \ is \ projected \ each \ year \ (in \ relation \ to \ the \ quantities \ produced);$
- 3) each year, the actual value is compared to this projection; and
- 4) the result shows the theoretical benefits due to installation improvements concerning the savings of energy, water and use of chemicals.

Total costs cover expenditure of environmental management areas (including waste and remediation) and yearly net investment and equipment depreciation.

#### Environmental investments | EN30 | STEV6 |



% of total company investments

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#### HIGH LEVEL OBJECTIVE

Continuously improve our eco-footprint according to Decalogue target

#### Objectives 07



Reduce energy consumption by 5%\*



Reduce water consumption by 5%\*



Reduce chemical consumption by 5%\*



Reduce pollution from VOCs by 10%\*



Reduce pollution from acidification by 5%\*



Reduce pollution from eutrophication by 5%\*



Reduce pollution from heavy metals by 10%\*

(\*) Per unit of production / year

#### Overall reduction in consumption of resources

In 2007, absolute consumption of all ST manufacturing sites has increased for electricity by 0.5%, while water consumption and chemical consumption have both decreased by 2.2% and 4.1% respectively. These trends should be compared to a production growth equivalent to 4%.

#### **Consumption of electricity**

In 2007 the overall trend since 1994 for electricity consumption reduction, based on our Environment, Health and Safety Decalogue target to achieve a cumulative reduction of 5% per year (per unit of production), has been maintained even if the global reduction in 2007 versus 2006 was smaller than expected at 3.5%. This is due to upgrades to manufacturing processes, which require new technologies and higher levels of complexity. Even with the introduction of these new technologies, investment has been made to save energy at our sites (see previous page) to maintain our improvement pace in spite of these increased difficulties.

#### **Consumption of natural gas**

Natural gas is mainly used for air heating purposes and for cooking at on-site canteens, representing only approximately 10% of our total energy use. We are focusing on reducing natural gas consumption as part of our commitment to reduce  $CO_2$  emissions.

#### **Energy saved**

The graph on page 49 summarizes the results achieved over four years through energy savings programs, including both electricity and natural gas. These savings are calculated as follows: a baseline is set every year and the expected consumption for the following year is determined with the assumption that there are no improvement actions taken, which means that the expected consumption will be strictly proportional to the variation of manufacturing volumes. Every year the real consumption is measured against the expected consumption to show actual savings. Savings include global energy efficiency improvements in manufacturing processes as well as facilities management within our manufacturing sites.

#### Consumption of chemicals | 5.1 |

Our manufacturing processes require significant amounts of chemicals, especially in Front-end activities. Since some chemicals have a potential impact on the environment and also carry health and safety risks, we work hard to keep their use to a minimum.

In 2007 the positive decreasing trend has been maintained, with a 5% reduction in the consumption of chemicals compared to 2006. On average, since 2000, the reduction has been over 7.3% per year, compared to the annual target of 5% reduction per unit of production. This improvement has been achieved despite the new manufacturing processes and their increasing complexity, and is mainly due to positive actions and the efforts of our sites' chemicals committees.

#### **Consumption of water**

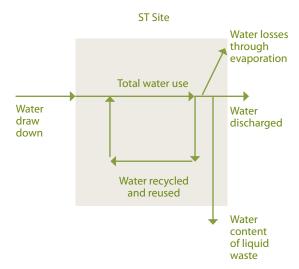
This is an area where we continue to make good progress. We have consistently exceeded our Environment, Health and Safety Decalogue target (5% reduction per year), reducing water consumption per unit of production by an average of 9% per year since 1994. The graph on page 49 plots our performance against the Decalogue target of 5% reduction and shows that the reduction of water consumption per unit produced has been much faster than planned.

The reduction in water consumption is achieved through continuous improvements to our processes and through a reduction in water draw down, but also thanks to recycling practices that are shared between different sites. Our water recycling and reuse rate is 26.5% at the overall company level, but reaches 40 to 50% in some Front-end plants (Rousset and Catania) and 75% in some Back-end plants (Malta).

In 2007, as part of our policy to control our use of water and reduce water consumption, we introduced a new indicator to track total water discharged in wastewater sewage systems.

We will be able to evaluate our performance in this area more effectively in the coming years. We intend to monitor our complete water cycle, which consists of a number of stages. Water is drawn from relevant sources and is used, reused and recycled for our manufacturing processes and services at our sites. During these processes some water is lost through evaporation, and the remaining water is discharged in wastewater sewage systems or as part of liquid waste (for example, salt water solutions, solvent solutions or sludge).

None of our manufacturing sites is located in sensitive biological areas, or in any special wetland environments, but every care is taken to limit the impact of our activities to a minimum on the environment surrounding our sites.



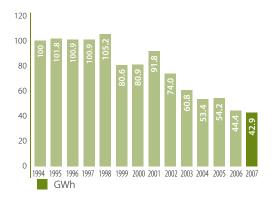
#### 

	2004	2005	2006	2007
Electricity (GWh)	2,148	2,341	2,469	2,482
Water (1,000m³)	20,550	21,834	22,215	21,729
Chemicals (tons)	16,938	18,669	21,378	20,498
Natural gas (GWh)	268	307	277	279

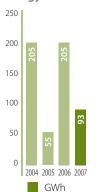
## Consumption of electricity (per unit of production): normalized values | EN4 | STEV31 | $\widehat{\parallel}$ 3.1 |



## Consumption of natural gas (per unit of production): normalized values | **3.1** |

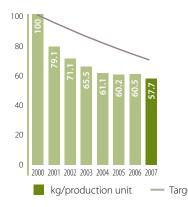


#### Energy saved\*: | EN5 | 2.1 |



<sup>\*</sup> Includes electricity and natural gas

#### 



## Consumption of water (per unit of production): normalized values | EN8 | STEV56 | 2.2 |



#### Recycled and reused total water | EN10 |

	2007
Total water used (1,000m³)	29,567
Water recycled and reused rate (%)	26.51
(70)	

#### Total water discharge | EN21 |

	Unit	2007
Water discharge	1,000m <sup>3</sup>	17,934

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#### Objectives 07

0

80% of waste to be reused or recycled



<5% waste to landfill versus total waste



Reduce our eco-footprint below 1.05

#### Waste

In 2007 only 5.5% of total waste produced by ST went to landfill. All other waste was reused, recycled or burned to produce energy. The overall downward trend over time continues to be very positive, with an impressive decrease of landfill waste of 79% over the last seven years. The reduction of landfill waste has been achieved by selecting the appropriate waste recycle and reuse activities.

As a result of our program to reduce landfill waste, reused and recycled waste (measured as a percentage of total waste) has increased steadily over the years. In 2007 we reused or recycled about 83% of waste generated. Recycled and reused waste at our sites varies between 42% and 96% according to the local technologies available and specific waste characteristics.

Hazardous waste, in very general terms, is the waste resulting from the production process, which can include chemical substances, some plastics, lightbulbs, etc. Our EHS Decalogue states that hazardous materials should be kept to a minimum or safely eliminated wherever possible.

Most hazardous waste is recycled or reused and the remaining waste is disposed of safely by specially authorized companies to avoid environmental contamination. Most of our hazardous waste is treated in the same country in which it was produced, unless there is no authorized treatment

plant. The safe transportation of hazardous waste to a location where it can be treated occurs for two of our sites, in full accordance with the Basel Convention.

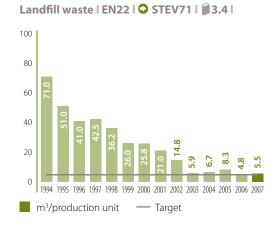
2007 is the first year in which we have been able to report on the total amount of hazardous waste produced. This data shows a reduction of more than 2,000 tons between 2006 and 2007.

#### **ST Eco-footprint 2007**

The 'Eco-footprint' is an environmental composite indicator that allows ST to monitor a number of key aspects of the environmental performance of our manufacturing plants. The ten parameters that compose this indicator and the corresponding GRI G3 indicators we use to report our progress in detail are shown in the chart below.

In 2001, we defined the value of 1 as our target for each parameter, generally based on the best performance achieved by an ST site at some point, or based on the best projected performance for the coming years.

In 2007 we achieved our objective of reducing our ecofootprint below our 2007 target of 1.05, with a global result of 0.97 compared to 1.16 in 2006. The steadily decreasing trend is thanks to a continuous focus from all sites on the reduction of consumption of our key resources and careful attention to the evolution of all ten parameters throughout the year.



	2006	2007
Total hazardous waste (tons)	15,647	13,205
Total waste (tons)	44,364	43,628
Waste under Basel Convention   EN24		
Name and a constant at the constant of 0/ of total languages, and a constant		2007
Hazardous waste transported % of total hazardous waste		0.09
Recycled waste   EN22   STEV72   🗑 6.1		9/

2004

80

2005

78

2006

80

1994

Waste recycling and reuse

25

Eco-footpri	Eco-footprint   STEV23					
		2005	2006	2007		
	EN4   Electricity	1.15	1.10	1.01		
	I EN8   Water	1.12	1.02	0.95		
	EN1   Chemicals	1.08	1.13	1.03		
	EN16   Global warming	1.64	1.29	1.07		
Front-end	I EN22   Waste R+R	1.29	1.25	1.21		
Front-end	EN1   Material intensity	1.18	1.17	1.08		
	I EN20 I VOC	0.88	0.75	0.65		
	EN20   Acidification	2.2	1.44	1.17		
	EN21   Fluoride	2.21	3.05	2.72		
	EN21   Eutrophication	1.97	1.84	1.76		
	Total	1.424	1.353	1.226		
	EN4   Electricity	0.96	0.86	0.74		
	I EN8   Water	1.00	1.05	1.00		
	EN1   Chemicals	0.61	0.51	0.36		
	EN16   Global warming	1.00	0.89	0.80		
Back-end	EN22   Waste R+R	1.06	1.11	1.01		
Dack-enu	EN1   Material intensity	1.33	1.20	1.06		
	I EN20 I VOC	1.04	0.53	0.43		
	EN20   Acidification	1.20	1.78	0.46		
	EN21   Heavy Metals	0.98	1.28	0.46		
	EN21   Eutrophication	0.88	0.50	0.45		
	Total	0.992	0.960	0.706		
	Total Eco-footprint	1.21	1.16	0.97		
	Target			1.05		

#### Progressively achieve carbon neutrality

#### 

We consider global warming to be one of the most critical issues to be treated and we work hard to decrease the level of greenhouse gases (GHG) released into the atmosphere during our manufacturing activities. Our 'Carbon Roadmap' supports us in working towards our ambitious target of becoming  $CO_2$  neutral by 2010. This roadmap consists of our energy management program to reduce consumption; the use of alternative and renewable energy; our Perfluorinated Compounds (PFC) management program to reduce  $CO_2$  emissions from PFCs; and our carbon offset program and emission reduction trading program.

2007 has been a record-breaking year, as we have been able to reduce our net greenhouse gas emissions by 20%. Our direct net emissions due to the use of PFCs have decreased significantly (-33%) as a result of both investment in point-of-use abatement systems and a change in the rules for calculating and reporting emissions defined in 2007 by the Intergovernmental Panel on Climate Change (IPPC). Our indirect  $\text{CO}_2$  emissions have increased slightly due to the increase in energy use explained on page 48.

For more information on our initiatives to reduce greenhouse gases (EN18) see the html version of the report

 $\rm CO_2$  emissions relating to transportation decreased in 2007 as a result of a reduction of business travel to control expenses. Efforts to reduce emissions due to transportation include close control of goods logistics and schemes to support employees in using public transport or other alternatives to their own car. The sequestration of  $\rm CO_2$  through reforestation projects has shown a net increase this year, thanks to the growth of trees planted in Australia, Morocco, Texas and Italy (approximately 9,000ha in total).

#### **Green energy**

Our wind farm located in the south of France had a good year in 2007 and produced 30GWh compared to 23.7GWh in 2006, contributing to the overall reduction of CO<sub>2</sub> emissions.

The total green energy used by ST consists of the electricity that is either purchased or generated by renewable sources and accounts for about 3% of total energy consumption. The electricity produced by ST's wind farm accounts for about 1% of total energy consumption, while the small contribution of photovoltaic and solar thermal energy accounts for about 0.01%. In addition to this, the electricity purchased from nuclear sources is about 25%, making the total energy used without  $\mathrm{CO}_2$  emissions 30 % in 2007.

#### Objectives 07



Reduce net PFC emissions to 10% versus 1995 by 2008 (net reduction in 2007 versus 2006: 33.9%)



Increase use of renewable energy to 15% of total energy use by 2010: (3% in 2007)

#### Objectives 08\*

Reduce our eco-footprint indicator below 0.95

Reduce PFC emissions by 50,000 MTCE

Reduce our overall energy consumption below the normalized value 49.7 kWh/production unit

(\*) in addition to Decalogue targets.

Summary of net CO₂ emissions   EN16   EN17   EN18   EN29				
	2004	2005	2006	2007
STEV27 CO <sub>2</sub> due to energy (direct and indirect emissions)	1,046	1,157	1,039	1,080
STEV46 Direct emissions due to PFCs	718	747	728	481
STEV48 Transportation emissions*	231	242	242	107
STEV47 Total emissions**	1,995	2,146	2,009	1,668
STEV52 Sequestration due to the implementation of reforestation projects	3	40	81	126
<b>STEV47</b> Total net CO <sub>2</sub> emissions	1,992	2,105	1,927	1,542

- (\*) The transportation emissions value is a global estimate of employees' transportation and transport of goods.
- (\*\*) Transportation emissions are integrated in the total emissions.

#### CO<sub>2</sub> emissions: normalized values | EN16 |



#### 

Breakdown of energy consumption (GWh)	2006	2007
Electricity consumption	2,462	2,482
Natural gas consumption	274	279
Others sources	41	1
Total energy consumption	2,777	2,762
Electricity as a percentage of overall consumption %	88.66	89.86
Breakdown of energy sources as a percentage of		

#### Breakdown of energy sources as a percentage of overall energy use

Green electricity purchased	9.51	3.01
Electricity produced by ST's windfarm	0.96	1.10
Photovoltaic and thermal solar electricity produced by ST	0.004	0.01
Electricity purchased from nuclear	29.84	25.60
Electricity purchased from oil or coal sources	48.346	60.18
Electricity purchased from natural gas	9.87	10.10
Other fuels %	1.47	0
Total	100	100

Electricity produced by ST's windfarm	GWh
EN3   STEV40   <b> </b>	

	2003	2004	2005	2006	2007
Electricity	18.6	30.5	33.1	23.7	30.0

Transportation emissions   EN17					
Units	2003	2004	2005	2006	2007
Transportation	220	231	242	242	107

## The MISTRALS project helps Cancer and pharmaceutical research

INTERVIEW WITH CHRISTOPHE PRIOR, MARKETING MANAGER MMY RF MEMORIES, ROUSSET, FRANCE



ST is the project leader of a new development program to evaluate the effectiveness of radio-frequency identification (RFID) technology in cancer research and pharmaceutical product security.



In January 2007, MISTRALS, a three-year multistakeholder R&D project was launched within the Secured Communicating Solutions (SCS) Competitiveness Cluster. SCS is one of the six international clusters formally recognized by the French government and currently led by ST's Jean-Claude Nataf.

#### See page 9 for more details

MISTRALS aims to evaluate the contribution of RFID technology to 'track and trace' applications in two specific areas:

- Biobanks: Biopsy samples are collected and stored in banks to be used as a research resource for testing new molecules against cancer. The new RFID smart identification will ensure more effective management of biopsy
- Pharmaceuticals: The technology improves the safety and security of drugs throughout their product life cycle, especially within hospital distribution systems.

The aim of MISTRALS is to develop 'end-to-end' solutions combining electronic labels based on RF EEPROM chips and computer-based open platforms to be used by pharmaceutical researchers and practitioners. In the short term, bar codes will be replaced by intelligent electronic tags that overcome shortcomings in current systems. These include the limited amount of information available, the difficulty of updating information, the fact that bar codes can only be read at short distances and limited confidentiality.

We interviewed Christophe Prior, MISTRALS's first project facilitator, to find out more.

#### What is the role of the different partners involved in this project?

ST took the initiative and became the leader of this project because it was felt that the new standard of RFID technology we are promoting fits perfectly with the future needs of the health sector.

It took us more than a year to bring the right partners into MISTRALS. These include:

- key health institutions: a hospital in Nice and the Institut Paoli Calmettes in Marseille;
- · industrial companies, each bringing complementary know-how and expertise: ST, IBM, PSION, SPS and Tagsys;

- the academic community: Ecole des Mines de Saint-Etienne, Centre Microélectronique de Provence (EMSE-CMP); and
- Government and local authorities: the French Ministry of Health, the French Ministry of Industry and local authorities.

The health community helped us identify the functional specifications of the final applications and will be piloting their implementation. The public authorities and the large companies financed the project.

ST is working on the RFID technology and IBM on the service platform aimed at collecting. screening and making the data accessible. Tagsys and SPS are designing the electronic tags, while PSION and Tagsys are designing the RFID reader.

EMSE-CMP is partnering with SPS on the hardening of the tags since they need to withstand unusually hostile environments, such as the presence of aggressive chemicals and very low temperatures.

#### What challenges did you face in launching this project?

The main challenge here – and this is the first time ST has done this – is to lead a multi-stakeholder project from A to Z in order to satisfy the final customers. We had to convince these partners to follow us and find a solution together to adapt RFID technology to the medical and pharmaceutical industries.

The two main technological challenges we face here are the large number of tags to be read simultaneously and the amount of data to capture and process in real time.

The final challenge is for the customers in the medical and pharmaceutical sectors. They will have to adapt their business processes and initiate a cultural evolution for their employees who are not yet used to working with ICT on a large scale.

#### To what extent can we consider these products 'responsible'?

The Biobank application of the RFID technology will accelerate cancer research. The carcinogenic cells collected in the hospitals will be better recorded and made available to researchers thanks to data centralization on a single

On the pharmaceutical application side, the main objectives are to reduce medicine prescription errors, better respect the strict manipulation and handling conditions and avoid medicine counterfeiting (which represents 20% of the market in developing countries and 8% in developed ones).

In short, MISTRALS is a response to the need for superior tracing and tracking of health care products (including biological samples, blood pouches and medicines). It also facilitates data access and exchange between health professionals - medicine manufacturers, biologists, pharmacists and doctors.

This technology also addresses societal concerns resulting from the implementation of such technologies, including health care process improvement, better medical risk management and improved assistance for patients, especially the elderly and disabled.

MISTRALS will also benefit students, giving them thesis and job opportunities, and the ability to benefit from the companies' expertise. Manufacturers will benefit too: from the investment in R&D coming from government subsidies, from the competitive advantage gained from technological advances, and from the final products, including the positive image these provide.

#### Do you have any other projects underway?

Yes! MISTRALS is only one among an array of projects going on in the SCS Competitiveness Cluster. This specific cluster's program is dedicated to 'track and trace' and includes four application sectors: health, aeronautics, trade and agribusiness. RFID technology is used in every project launched in these sectors.

Within the SCS cluster, we are also working on the creation of a research institute specifically dedicated to health on the basis of a privatepublic partnership.

## ST technology contributes to water distribution solutions in Morocco

The Moroccan government has decided to tackle a vital issue concerning sustainable development: water resources. In the poorest areas of the country, people cannot afford to have water piped to their homes, so it is supplied to common fountains. This situation creates two main problems: wastage of water and poor sanitary conditions.

ST technology has been chosen by Electro-Contact, the producer of a new device aimed at addressing these questions. Electro-Contact has created a control system to organize the distribution of free and pre-paid water. This electronic equipment has been placed in collective fountains, in several villages, and people are provided with an electronic key to manage their water use and pay electronically according to their consumption. The key registers the amount of free water allocated to each family for its basic needs and the amount of additional water it has pre-paid.

Several components contain ST technology: microcontrollers in the control system, in the hand-held terminal used for key pre-payment management and in the infra-red remote-control; and power management in the battery charger. In the next generation of control systems, the key and reader will be equipped with ST Radio-Frequency Identification (RFID) technology.

In November 2007, four fountains were functioning with this technology and the results were very encouraging:

• excellent acceptance by the population; and



• more than 50% water savings.

The market for this application of ST technology is significant since Morocco wants 92% of its population to have access to clean safe water by 2009.

For more information on Electro Contact and its products, see www.electrocontact.com

## ST Italy shares best practice at the CSR Europe Marketplace



In November, ST Italy participated in the third annual Marketplace event held by CSR Europe, a major European business network for Corporate Responsibility.

The Marketplace is designed to give member companies the opportunity to submit and share their best solutions to key Corporate Responsibility challenges. The event, held in Brussels, was supported and introduced by European commissioners Guenter Verheugen and Vladimir Spidla.

The Marketplace enables CR professionals within companies to come together, network and share their experience, commitment and results. This year ST Italy represented the company and participated in the event sharing three solutions based on their 'laboratory' activities within the Italian CSR Europe network:

- · a laboratory on innovation networking;
- · a laboratory on eco-efficiency; and
- an energy-saving microchip that won the innovation category of the annual award by Sodalitas, CSR Europe's Italian national partner (see below for more details).

Both solutions contributed by the laboratories were focused on small and medium-sized enterprises (SMEs). One of the many ways in which large companies like ST can contribute to Corporate Responsibility is by sharing their experience and expertise with smaller companies, thereby contributing to their sustainable development and reinforcing important social links within the local and regional community.

#### **Innovation Network Laboratory**

This laboratory, led by Luisa Fracassini (ST Continental Italy Sustainable Excellence Manager) together with Livio Baldi (ST Catania M6 External Research and Funding Director), has benefited from the participation of other Italian companies Pirelli, Bracco and Indesit. Its aim is to provide guidelines and suggestions for

SMEs to improve their processes for innovation and to support them in self-assessment and measurement of their innovation capacity. This laboratory also designed and implemented a national award to promote responsible companies and spread best practice, together with Confindustria (the national association of entrepreneurs). This activity fell within the scope of the campaign aimed at promoting innovation in companies led by Pasquale Pistorio, ST's former CEO and Vice-President of the Confindustria.

#### **Eco-efficiency Laboratory**

This laboratory, led by Renato Di Stefano (Continental Italy Energy Manager) and presented at the Marketplace by Claudia Sterlini (Plant Facilities Manager) has aimed to show SMEs the advantages of energy efficiency, sharing with them some technical solutions that help achieve this. The other companies participating in the laboratory were Enel, ABB, Indesit and Telecom Italia.

The objective is to support SMEs' sustainable growth through saving energy, natural resources and money. The suggestions presented to SMEs addressed three main areas:

- efficient technical solutions:
- · renewable energy sources and self-generation; and
- · awareness about and negotiations within the energy market.

## ST Italy wins the 2007 Sodalitas Social Award for Innovation

The Sodalitas Social Award is a national prize, supported by the Italian President, to reward and promote the most effective Corporate Responsibility initiatives led by Italian companies.

In 2007, ST Italy participated in the category dedicated to socially responsible projects for innovation. This rewards companies for a highly innovative product or service demonstrating a positive social, environmental and financial impact, including the improvement of quality of life for local communities.

#### The winning product: an innovative energy-saving microchip

ST Italy won the award for the introduction of an energy-saving microchip that is integrated into a large number of ST products destined for appliances such as televisions, computers and battery chargers for mobile phones and video games. These products are developed by the Off-line Power Supply Business Unit in the Industrial & Power Conversion Division within ST's Analog, Power & MEMS Group.

The Sodalitas judges appreciated the innovative technology in the microchip, which allows the improvement of energy conversion efficiency and a significant reduction in electrical consumption of appliances during stand-by. In concrete terms, the results of these microchips can be quantified in an electricity consumption reduction of 1,250 GWh/year, equal to a reduction of CO<sub>2</sub> emissions of 750,000 tons.

The Sodalitas Social Award is another prestigious recognition for ST that encourages us to move forward along the path of Sustainable Excellence

## ITS and a coming revolution in our road environment

INTERVIEW WITH FERNANDO VENTURA, AUTOMOTIVE PRODUCT GROUP (APG) CAR RADIO AND MULTIMEDIA DIVISION BUSINESS DEVELOPMENT MANAGER, AGRATE, ITALY

ST is involved in a major program for Intelligent Transportation aimed at improving road safety and traffic efficiency.



#### What are the objectives of this Intelligent **Transportation project?**

ITS is a global initiative involving a large number of players. Its aim is to create systems that sense the driving environment and provide information, communication and services to the driver and to transportation providers in order to achieve optimal vehicle operation and a safe and reliable traffic flow.

The initiative covers a range of applications including:

- traffic information and dynamic route guidance navigation systems;
- · electronic fee collection;
- telematics (emergency call and tracking
- · vehicle to infrastructure and infrastructure to vehicle communication;
- · vehicle to vehicle communication; and
- digital broadcasting (satellite/terrestrial) for traffic and weather information, etc.

The key objectives are essentially safety and efficiency in transportation, mainly by offering potential solutions to address traffic accidents and congestion.

#### Who are your partners in this program and what role do they each have?

Actually many of the initiatives within this program involve multiple stakeholders such as industry, public authorities, infrastructure providers and ITS organizations in Europe, the US and Japan. There are a variety of local ITS organizations in most European countries, which coordinate domestic activities. The actions that take place in Europe, the United States and Japan are not necessarily coordinated at an international level.

All of the partners contribute to the same goal: to equip vehicles with devices that make transportation safer and more efficient through two-directional connectivity to an infrastructure or to other vehicles

ST's role is of course to provide technology to make the program effective. The current ITSenabling technologies we provide include:

- GPS-based GNSS (Global Navigation Satellite System), which is an innovative combination of satellite positioning (GPS) and mobile communication (GSM);
- DSRC (Dedicated Short Range Communication);
- · broadcasting (either terrestrial or satellite);
- · radar- and camera-based technologies for Advanced Driver Assistance Systems (ADAS) aimed at avoiding collisions.

These enable a new class of vehicle features that can improve traffic safety, driver convenience, road efficiency and facilitate many types of in-vehicle services. ST has a long and successful track record in this sort of technology.

ST's APG, APM and AST product groups at sites in Agrate, Castelletto, Catania and Naples in Italy, Greater Noida in India and Bristol in the UK are all involved in designing the key building blocks of ITS

#### What are the expected benefits of the program?

There should be a positive impact for all parties:

- for the driver: greater safety and a reduction in travel time and fuel consumption;
- for society: lower energy consumption and less pollution, lower associated cost for public health services, and a reduced impact of economic activity (logistics and transport);and

• for industry: new and responsible market opportunities.

#### What are the main challenges in the implementation of ITS?

The first challenge will be to get legislative support. A good example from the past is the car airbag that was originally just an innovative feature but is now mandatory by law. The private sector and infrastructure providers will have to accelerate the integration of these new technologies into cars and the road environment.

It will also be important to ensure effective cross-border collaboration on the various technologies (e.g. GPS and Galileo).

Another challenge will be to raise the awareness of consumers and society in general to accept the benefits of the new system, and to reassure them that the associated costs will be acceptable and that personal privacy will not be infringed.

#### When will the first applications be launched?

Emergency call services are already in place. e-Call is an EU program that will lead to a rollout of a pan-European emergency service that can be used by all vehicles in Europe. It will be the first large-scale initiative. When an accident takes place, the e-Call On Board Unit transmits an emergency call that automatically goes to the nearest emergency service.

The European Commission is cooperating with industry, emergency services and member countries to ensure the roll-out of this technology across Europe by 2010. This EU program could help improve safety and reduce road fatalities by 50% – in 2005 more than 40,000 people were killed and 1.2 million injured in road traffic accidents in the FU.



## ST's support to Customers in creating energy-efficient products

INTERVIEW WITH PETER ROBERTSON, MANAGING DIRECTOR, AND IAN BROWNE, TECHNICAL DIRECTOR, OF ONECLICK TECHNOLOGIES, NOTTINGHAMSHIRE, UK



In the world's most developed nations, it is estimated that some 5%-10% of total electricity consumption is wasted by devices left on stand-by. OneClick Technologies has decided to focus its strategy on energy-efficient products.\*

> Twenty years ago, Peter Robertson came up with the idea of developing technology that saves the energy wasted by electrical devices left on standby. But it was ten years later, after completing a MBA, that he decided to seriously tackle the problem and devise a business plan. This is how OneClick Technologies was created

The company's strategy is based on the idea that energy prices will rise sharply and that at the same time the number of peripherals connected to electronic appliances will keep on growing.

ST contacted OneClick to assist in the development of a new USB version of the IntelliPlug. This product is designed to 'power down' peripheral devices such as printers, scanners and speakers automatically when a laptop PC is switched off. This simple yet innovative concept delivers a significant reduction in electrical power use.

OneClick discussed their requirements with several potential partners, and ST emerged as one of those with the potential to provide OneClick with the solution it was looking for:

- respond to OneClick's technical needs;
- propose a competitive pricing strategy;
- provide a wide range of products suitable for extensive future development and innovation; and
- have a robust supply chain process allowing minimum lead-times and on-time delivery.

Peter Robertson and Ian Browne say: "We have had great support from ST engineers to help us generate code for our products and train our team of engineers to become more familiar with ST development tools and USB devices"

"But we also talked with ST about their Sustainable Excellence culture and their strong involvement in environmental protection. It was important for us to know that ST views these issues as we do, and that we both intend to produce environmentally-friendly products."

(\*) For OECD countries. Source: Lebot, B, Meier, A & Anglade, A 'Global Implications of Standby Power Use' Proceedings of the 2000 ACEEE Summer Study on Energy Efficiency in Buildings (August 2000)

For more information on OneClick and its products, see www.oneclickpower.com

Product responsibility performance overview 07

## Performance overview

#### Quality

For us, product responsibility also includes product and process quality, which is one of the most fundamental responsibilities we have to our customers. ST as a company, including all of its sites and organizations, is fully certified to the ISO/TS 16949 standard for quality management, covering all of our processes and management systems.

The chart on the right shows data for three of our key performance indicators for quality over the last three years. These results show a good improvement both in the number of customer complaints, down 36% in three years, and customer returns, which are down 60% in the same period.

#### **Product stewardship**

Our product stewardship focuses on three main categories: responsible environmental and social applications of our products, including in particular energy-saving products and health; the chemical content of our products; and responsible military use of our products.

### Products for energy saving | EN26 | EC2 | | STPR1 |

ST is a world leader in power management, and we are number one, based on revenues, in the industrial market segment. Using electronic techniques instead of electromechanical ones helps reduce operating power, and this is applicable to anything that contains an electric motor, and to lighting and sensors (and other applications).

Many of our products help reduce residential energy consumption, which represents 36% of overall energy consumption worldwide, as well as industrial energy consumption, which accounts for 38%. We also take advantage of our strong position in the automotive market segment – we are the number three company worldwide based on revenues – to develop applications for lower fuel consumption.\*

(\*) As we are currently working on a more accurate method to identify energy-saving features, this year we have decided not to publish the amount of our sales related to energy-saving devices. This indicator will be reported again next year, based on 2008 sales.

#### Some concrete examples

**Refrigerators:** Replacing a traditional thermostat with an ST electronic sensor, and driving the compressor with ST's intelligent power management device, can reduce energy consumption by 40%, which is equivalent (on average) to 250 kWh/year. If all refrigerators in Europe were to use this technology, there would be a saving of over 8,000 GWh, equivalent to five million tons of  $CO_2$  or one million cars each driving 30,000 km/year.

Electric power steering: ST has solutions to replace hydraulic pumps in car steering systems that will result in energy savings with zero consumption when no force is applied to the steering wheel. The fuel saving impact is about 0.17 liters of fuel per 100km.

#### Quality (baseline 100 in 2004) | PR5 | STPR2 | STPR3 | STPR4 |

	Q4′04	Q4′05	Q4′06	Q4′07
Customer complaints (per million units shipped)	100	86.2	71.6	64.2
Cycle time to process failures analysis (in days)	100	72.7	62.6	71.9
Customer returns (as a percentage of billings)	100	41.1	38.3	40.0

**Electrical heating:** Here, again, intelligent power management devices provided by ST can help reduce consumption by 30%, resulting in savings of 500 to 600 kWh/year for each electrical heater.

Start and stop: ST has developed a solution in a new combined starter and alternator that will start and stop a car engine and save fuel when driving in an urban environment. The impact on consumption is quite high, with fuel savings of up to 15% in some cases.

#### **Products for health**

ST is capitalizing on its broad technology portfolio to develop innovative solutions for the health market. This improves the efficiency of medical diagnosis and treatment, but also – thanks to the lower cost of these new technologies – will help bring state-of-the-art medical equipment to less-developed countries.

Lab-on-Chip platform: The In-CheckTM Lab-on-Chip platform has been developed by ST based on microfluidic technologies, and is being used by developers of molecular biology diagnostic applications. The resulting applications include kits to detect a wide range of harmful agents from sepsis bacteria to avian flu viruses, and can also detect genetic predispositions, perform cancer profiling and much more.

For more information, see our 2006 report, page 52

Insulin nanopump: ST and a Swiss medical device developer are working to jointly develop and bring to market a miniaturized insulin pump. This breakthrough is based on the application of microfluidic MEMS to medical needs, and has the potential to deliver huge advantages to diabetic patients in terms of performance, convenience and cost. The ultimate goal is to develop a system that acts as an artificial pancreas, in other words a closed loop system that self-regulates the sugar level in blood.

For more information, see our 2006 report, page 53

#### Military use of our products

Our Principles for Sustainable Excellence make it clear that "we will not sell products that we know are to be included in weapons".

In 2007 the Corporate Ethics Committee has further clarified this statement in a widely distributed position paper, and has defined a weapon as "any instrument or application whose primary purpose is to kill human beings: missiles, bombs, landmines etc. are clearly weapons; associated launch devices or guiding

systems are also considered weapons. On the other hand, systems for communication, navigation, detection and transportation should not be considered weapons."

As situations may sometimes be quite complex, ST employees are advised to refer to the Corporate Ethics Committee, in case of doubt, for specific guidance before finalizing any sales agreement or development contract.

#### Material declaration | PR1 | STEV78 | STEV79 |

As a consequence of the RoHS directive, more and more customers are now requesting ST to provide a detailed material content of our products. We understand and support this precautionary approach to avoid health or environmental problems due to the uncontrolled use of chemicals, but the implementation of a robust system to communicate reliable and permanently updated information to our customers is not trivial.

In 2007, we set up a task force to define the process and develop the appropriate tools, and we have started to provide material declarations to our customers. We are basing our declarations on the IPC1752 standard, and we expect to have a fool-proof system in place by mid-2008.

Principles for Sustainable Excellence: www.st.com/stonline/company/cr/2006/social/pdf/principles.pdf

## WEEE | EN27 |

As a supplier of components to the electronics industry (not manufacturers of electronic equipment), we are not directly affected by the European Directive 2002/96/EC Waste of Electrical and Electronic Equipment (WEEE).

You can find the full disclosure on management approach in the html version of this report

For information on the indicators presented in this section, please refer to the Reader's Guide at the beginning of this report

## Our continuing involvement in the EICC

By the end of 2007, all of ST's major manufacturing sites had performed the common industry Self Assessment Questionnaire (SAQ) using the new online tool E-TASC, and launched corrective action plans to formalize continuous improvement processes.



As a member of the Electronic Industry Citizenship Coalition (EICC) since 2005, ST is committed to comply with the EICC Code of Conduct within our own operations and to promote and implement the standard in our supply chain, in collaboration with our suppliers and subcontractors.

In 2007 our objective for implementation in our own operations was to continue formalizing our internal compliance process by completing the SAQ on E-TASC. Through this common industry portal any company subscribing to the service may manage its own sites' completion of the questionnaire and, in addition, use the tool to invite its suppliers to do the same, following their progress with a performance scorecard

#### ST's internal deployment process

In order to make the deployment of the SAQ more effective, we decided to embed it in the process we had already put in place to deploy our Sustainable Excellence program. One of these phases involves assessing how our 'reallife' actions correspond to the values and principles embodied in our code of conduct. We did this in two ways: through a local management workshop and by using the SAQ as a gap analysis tool for our CR management systems. Our personalized code of conduct, the Principles for Sustainable Excellence, includes all aspects of the EICC Code of Conduct.

For more information on our deployment of Sustainable Excellence, see pages 11 to 13

By taking this approach we were able to benefit from existing organizational synergies. For example, each site's Sustainable Excellence committee was responsible for the task of performing the SAQ, requiring the focused efforts of a team of managers – from Human Resources, Environment, Health & Safety and Finance or Legal departments – to answer questions covering the main sections of the industry questionnaire: labor, ethics, environment, health and safety and management systems.

It was then the responsibility of each local committee to review the results, with the support of the corporate CR department, and develop a corrective action plan to progressively improve the site's score. The fact that customers who had requested access to the results of our sites' SAQs could view the improvement provided strong additional motivation, together with the fact that by filling in the SAQ once, each site team would be able to avoid responding to many different customer questionnaires.

#### SAQ results and review process in 2007

The overall average score of our 14 major manufacturing sites for the first round of the SAQ was 86.5 %, with individual scores ranging from 82% to 90%.

We were quite satisfied with this first result, and the breakdown of the scorecard by individual section of the SAQ enabled us to pinpoint the areas for improvement. However, we faced several more steps before we could draw reliable conclusions from the results.

First, we had to distinguish between areas where the score was low because the questionnaire was designed to identify risk relating to the nature of the sites' operations. For example, if a site uses hazardous chemicals (which our manufacturing sites do), the score is automatically decreased, without any implication of inappropriate management. The fact that all of our manufacturing sites are fully certified to ISO 14001 for environmental issues and OHSAS 18001 for health and safety meant that on the whole our performance in these areas was

Then we had to distinguish between those areas for improvement that depended on a corporate level action, and those that depended primarily on local site actions. As a result, we

developed a company action plan, which includes, for example, setting annual company-wide performance objectives for labor and ethics; reviewing the labor and ethics performance of sites each quarter; and the periodical review of the status of labor and ethics management

In January 2007 our Shenzhen site in China had the opportunity to go one step beyond the SAQ by participating in a joint audit pilot performed by EICC-validated auditing firm Bureau Veritas Certification. This was a very positive learning exercise for us, as we were able to identify a few areas for improvement at the site, which were addressed through a corrective action plan over the following months.

#### Objectives for 2008 and beyond

Our next step was to link these projected improvements – mainly to our labor and ethics management systems – to the medium-long term objectives defined in 2007 as part of our Vision 2012 process. As a result, we were able to formalize these directions for the coming years and identify some short-term objectives to be implemented in 2008.

For more information, see page 12

Our plan for 2008 is to continue the improvement progress at all of our major sites using the SAQ as preparation for future third-party audits performed by EICC-validated third party

For more information about EICC, see www.eicc.info/index.html

For more information about E-TASC, see http://e-tasc.achilles.com/default.aspx



#### EICC news

In October 2007, our CR Director, Kate Rigge, was elected to the new board of the Electronic Industry Citizenship Coalition. This election reflects ST's active participation in the initiative and allows us to support the evolution of the EICC in a more formal way.

## Deploying the **EICC** approach to suppliers and Subcontractors

As a member of the **Electronic Industry** Citizenship Coalition (EICC), ST has adopted the EICC Code of Conduct as its official supplier and subcontractor code of conduct and we are progressively implementing the standard in our supply chain following the EICC supplier engagement model and by integrating EICC- related criteria into key internal processes.

For a large multinational company like ST, effectively managing suppliers and subcontractors is a major challenge on a daily basis. Our Purchasing and Sourcing departments have to deal with more than 9,000 suppliers and 100 subcontractors of all sizes around the world, and at all levels, from central organizations to local sites. The volume of activity involved and the nature of the relationship with each business partner is different. These challenges and constraints mean that we need to rely on a robust management system designed to address the different requirements we make of our suppliers and the different aspects of our relationship and interactions with them.

#### Implementing the EICC supplier engagement model

As a member of the EICC, we strongly believe that the social, environmental and ethical performance of our suppliers and subcontractors is an important part of their overall performance. As a result, we are progressively implementing the four main steps of the EICC supplier engagement model, covering:

- 1) introduction and commitment to the EICC standard:
- 2) evaluation of performance using the first level risk assessment tool and the EICC Self Assessment Questionnaire;
- 3) validation of performance through the EICC audit approach; and
- 4) capability building and support in making continuous improvement.

#### **Embedding the EICC approach in our** process

As we deploy the EICC approach in our supply chain, we are also aware of the need to embed it firmly in our internal processes. In 2007, for example, we introduced a new performance evaluation model that includes EICC-related criteria among those we use to rate our suppliers and subcontractors

As our business decisions are based on the suppliers' overall performance, we believe this is an effective way of communicating the message that 'soft' aspects such as social, environmental and ethical performance are just as important as the traditional 'hard' aspects such as price, delivery time and quality, and that an overall good rating will be rewarded with long-term partnerships that will benefit everyone. This message is reinforced by the specific communications our suppliers and subcontractors are receiving from us regarding the EICC.

The EICC criteria included in the new evaluation tool include a commitment to the EICC Code of Conduct and its progressive implementation within the supplier company; management systems for labor, ethics, health and safety and environment, as well as respect for ST's banned substances list; and implementation of the EICC Code of Conduct to their own suppliers.

Once the relevant information has been filled in on our dedicated online tool, a radar chart can be drawn up by the ST purchasing manager to visualize the supplier performance across all domains and compare the supplier company's performance with the results of others. This information is then used as the basis for discussion and agreement with the supplier company within the regular customer-supplier relationship, based on the evaluation of performance carried out twice a year.

#### Results in 2007 and future objectives

After a year of using the new tool, we are very satisfied with what we have achieved. All key suppliers (representing approximately 80% of our purchasing invoices) are now evaluated using the tool, and we believe this is the most pragmatic way to create synergies and efficiencies that are beneficial for both ST and our partners.

Although our progress in deploying the EICC approach to our suppliers and subcontractors has been delayed due to our focus on implementing this and other key internal processes - we have deployed step 1 of the engagement model and partially deployed step 2 - we are now ready to continue the deployment process in 2008 by inviting higher-risk suppliers and subcontractors to fill in the EICC Self Assess-

ment Questionnaire and, later on, receive thirdparty EICC audits. Additionally, in 2008 we will begin extending the deployment of our EICC strategy to local suppliers managed by ST sites.

In order to support these activities and reinforce our Sustainable Excellence approach towards our suppliers and subcontractors, we are also in the process of realigning our organization and increasing the resources dedicated to these activities. A new central function, Quality & Sustainable Excellence, has been created and will work with our suppliers and all relevant internal parties to ensure a robust, efficient and sustainable supply chain.

For details of our implementation within our own operations, see page 58

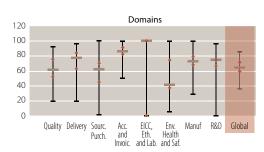
For details of our implementation in our supply chain, see page 63

#### **Supplier performance evaluation** (SPE) 2007 example

SPE score by domain (all ST sites)



Front-end and Back-end materials market



- 1st Ouartile
- Median
- 3<sup>rd</sup> Quartile
- Max

## Launching a major training program on our supply chain



The challenge facing ST in the effective management of its supply chain – from suppliers to customers – is how to manage the increasing complexities and turn them into a competitive advantage.

The complexity of supply chain processes requires a perfect alignment of all involved functions, focusing on global process results rather than local objectives. An educational program is being deployed to meet this objective. In 2007, one of our main projects was to create, with the help of ST University, a supply chain training program with the following objectives:

- Involve all the actors of the supply chain within ST: Sales & Marketing, Planning, Customer Service, Sourcing, Procurement, Operations, Logistics, Finance, and Information Technology.
- Implement a process approach (rather than a purely functional one), with the aim of clarifying the supply chain process and giving more visibility to everyone on the overall activity in order to perform better and get a cross-functional alignment between all the interacting actors.
- Highlight the interdependency between all the functions of the supply chain in order to

reinforce the communication, cooperation and coordination required between all departments

• Continually improve customer satisfaction – for example, delivery on the requested date – as well as ST's financial well-being, responding to customers' demands while optimizing the capacity of our equipment and our inventory level.

We realize that people are often very good in their area of expertise, but if they do not

in their area of expertise, but if they do not have a global vision of the overall supply chain management process there might be some bottlenecks and delays that can have a negative impact on the customer.

This training program will help everyone involved in the supply chain to position themselves within it, seeing where they fit into the bigger picture, and also understand better the daily challenges and events that occur in the supply chain. We believe that it will also increase everyone's motivation and quality of work.

This training program has been prepared throughout 2007 and a first pilot session was launched in October. Wide-scale deployment is planned throughout 2008-2009, targeting over 4,000 employees.

# Improving our demand management process

Good visibility on customer needs in terms of product quantity is the entry point of an efficient supply chain process. If we better understand the demand we will better anticipate, plan investments and utilize our assets to adapt our response to the expectations of our customers.

In December 2007, we launched a major program, involving divisions and regions, to re-engineer the whole demand management process. Our objective is to have a unique demand reference to drive all supply chain processes: capacity, balancing demand, production scheduling and financial projections.

#### The new process will include:

- · risk management;
- · clear accountabilities;
- monitoring of the accuracy of customer demands; and
- an alert system based on irregular demand variation.

The new process and tools will be implemented in 2008 focusing on three product divisions. Business results will be measured with significant improvement expected both on service level – ST's capability to meet customer demand – and financial performance in terms of increased inventory turns (sales divided by inventory). The complete roll-out for all of ST will start as soon as positive results are visible in the pilot divisions.

## Performance overview

#### HIGH LEVEL OBJECTIVE

Continuously aim to satisfy and exceed our customers' Corporate Responsibility requirements

#### **Meeting customer demand**

The indicator below illustrates our ability to commit on delivering our products on the date requested by our customers. The Supply Chain Process re-engineering roadmap, launched in 2007 with the Demand Management Program, will progressively increase ST's supply chain speed and agility to adapt to customer demand. We expect that the slight improvement of ST's ability to meet customer demand seen in 2006 and 2007 will increase in the next two years. The indicator takes a baseline of 100 in 2006 to show the actual improvement.

#### **On-time delivery**

The indicator below for on-time delivery shows the reduction in delivery delays and is therefore complementary to the indicator showing how well we meet the customer's requested delivery date. Our performance has been improving continuously in this area since early 2006, thanks to a strong focus on 'Execution Excellence'. We expect to reach the best-in-class performance target in the semiconductor industry by early 2009. The indicator takes a baseline of 100 in 2005 to show actual performance.

For more information on our progress in meeting our 2007 objectives, see page 60

#### **Customer Corporate Responsibility requirements**

In 2007 we saw a slight increase in the number of requirements from customers on topics relating to the environment and Corporate Responsibility. However, these only include those requirements managed at the corporate level; many more are managed at regional and site level.

We began to see more CR requirements based on the EICC, both from customers who are members of the EICC and also from non-member companies. We consider this a positive sign that the EICC Code of Conduct is gradually taking root as a de facto industry standard.

For more information on our implementation of the EICC, see page 58

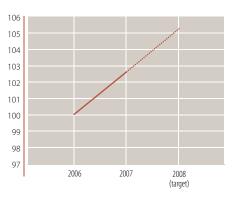
#### Customer CR requirements | STSC9 |

	2005	2006	2007
Number of customer requirements for CR (including environment) received at company level*	165	144	157

(\*) This data includes all Customer Environmental and Corporate Responsibility requirements from our customers, received by our corporate-level departments for support and validation. Many more are dealt with directly at local and regional level.

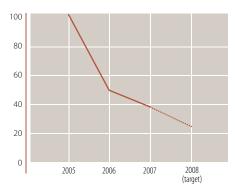
#### ST ability to meet customer demand

Delivery date in line with customer request (baseline 100)



#### **On-time delivery**

Reduction of delivery delays (baseline 100)



You can find the full disclosure on management approach in the html version of this report

For information on the indicators presented in this section, please refer to the Reader's Guide at the beginning of this report

#### Objectives 07



On-time delivery excellence by end of 2007



Launch of supply chain education program (4,000 participants by mid-2009)



Demand management process re-engineering (from commercial demand to production plan)

#### **Objectives 08**

#### **Suppliers**

- Obtain completion of the EICC Self Assessment Questionnaire by the 15 highest risk key suppliers.
- Start the EICC audit process on the two highest risk suppliers.
- Deploy the EICC supplier engagement model to local suppliers.

#### Subcontractors

- Front-end: Obtain commitment to EICC from key subcontractors. Perform EICC Risk Assessment level 1 on key subcontractors.
- Back-end:
   Ensure 100% of our
   Back-end subcontractors are certified ISO
   14001 and OHSAS
   18001.
- Ensure 30 highest risk subcontractors perform EICC Self Assessment Questionnaire.
- Start the EICC audit process on the three highest risk subcontractors.
- Implement the subcontractor performance evaluation tool, including EICC criteria.

#### Customers

- Obtain best-in-class performance in on-time delivery.
- Reach our targets in meeting our customer demand (see graphs).

62 I Supply chain performance overview 0

#### HIGH LEVEL OBJECTIVE

Achieve efficient and socially and environmentally beneficial partnerships with our suppliers and subcontractors

#### Objectives 07



Ensure ST suppliers and subcontractors are compliant with ST banned and restricted substances specification



Support key corporate suppliers in preparing to comply with EU REACH program



Continue to strongly encourage ST suppliers and subcontractors to be certified to ISO 14001 or EMAS validated



Strongly encourage ST subcontractors to be certified to OHSAS 18001



Strongly encourage ST suppliers to be certified to OHSAS 18001

#### **Certification to OHSAS 18001**

The international standard for health and safety, OHSAS 18001, is widely promoted to our key suppliers, but at the end of 2007 only 30% of our key materials suppliers were certified or had an equivalent certification. Generally, suppliers prefer to comply only with their own national safety regulations. The certification is a requirement for key equipment and facilities suppliers as well, but our internal data collection process does not currently allow us to report an accurate number at company level. We plan to improve on this in 2008.

For Back-end subcontractors, OHSAS 18001 certification has been included in the quarterly Quality and Technical Rating performed on all subcontractors since 2007. 80% of all Backend subcontractors (manufacturing sites) were successfully certified in 2007.

We began to track our Front-end subcontractors' certification to OHSAS 18001 in 2006 and 95% are now certified. These results are higher than those for suppliers because Front-end subcontractors are larger companies whose other customers often have similar requirements and expectations. The very few subcontractors that are not certified prefer to respect their local regulations, which are quite similar to OHSAS 18001 requirements.

#### **Certification to ISO14001/EMAS validation**

In 2007, the number of key suppliers of materials certified increased by almost 10% compared to 2006; this is largely due to the new Supplier Performance Evaluation tool, which places renewed emphasis on this aspect of performance, and to the continuous strong encouragement that we have always brought to our business relationships with suppliers on this subject. The tool will be applied to key equipment and facilities suppliers in 2008 and we expect a similar improvement.

91% of Back-end subcontractors are certified to ISO14001 or are EMAS validated, reflecting the strong emphasis that has been placed on this aspect of performance, including its integration in the quarterly Quality and Technical Rating of all subcontractors, since 2006.

Following a strong focus and tracking since 2006, 100% of all Front-end subcontractors are certified to ISO 14001 or are EMAS validated and work continues to check that certifications are renewed as appropriate.

#### **Compliance with banned and restricted substances**

All our suppliers and subcontractors are required to comply with our banned, restricted and declarable substances lists. This specification is based on the most stringent regulations (e.g. REACH, RoHS), standards and customer requirements, and is updated on an annual basis. A detailed check is performed on each supplier and a compliance certificate to our requirements is requested.

#### **Compliance with REACH for our key suppliers**

ST started to deploy REACH, the new European Union regulation for the registration and authorization of chemical substances, to key suppliers in the second half of 2007. After four months of work, we were strongly encouraged by the responsiveness and awareness of our key suppliers regarding REACH. We are continuing to deploy our program in order to ensure that all our suppliers fulfill their obligations, which include the commitment to identify and pre-register or register all chemical substances delivered to ST, the integration of identified uses in relevant documentation, and a strong focus on the identification of those Substances of Very High Concern (SVHC).

The program has already been extended to all local suppliers, supported by an extensive training program to provide the necessary information and guidance.

For details on our suppliers' commitment to REACH, see the table on page 63

Suppliers' and subcontractors' Hea	alth and Safety perform	ance   STSC2		2007
	Number of suppliers/ sub-contractors	OHSAS validated (%)	Certification in progress (%)	With no certification
Suppliers of materials	112	30	NA	NA
Suppliers of equipment/facilities	61	NA	NA	NA
Total	173	NA	NA	NA
Subcontractors Back-end	56	80	0	11
Subcontractors Front-end	22	95	0	1

#### Suppliers' and subcontractors' environmental performance | STSC1 | STEV17 | Number of suppliers/ ISO 14001 certified/ EMAS validated (%) Certification in progress (%) With no certification (%) sub-contractors 2005 2006 2007 2005 2006 2007 2005 2006 2007 2005 2006 2007 Suppliers of materials 108 64 73 82 30 21 97 112 6 6 3 21 21 21 Suppliers of Equipment/facilities 61 61 61 76 76 3 3 **Total** 158 169 173 68.6 74.1 11.8 11.4 19.6 14.5 Subcontractors Back-end 91 0 NΑ 9 NA NA NA NA NA NA NA Subcontractors Front-end NA NA 22 NA NA 100 NA NA 0 NA NA

Actively contribute to the EICC initiative by supporting our suppliers and subcontractors in reaching compliance

#### Suppliers' compliance with EICC

In 2007 we continued our work to deploy the EICC supplier engagement model to 117 material key suppliers, which represent approximately 30% of ST's purchasing volume in terms of monetary value. Our first objective was to integrate EICC criteria into our internal supplier evaluation tool, and this major task was successfully achieved (see page 59 for details). All 117 key suppliers were evaluated in 2007 using the new tool.

We were unable to address the two other key objectives relating to the EICC for 2007 – deploying the EICC Self Assessment Questionnaire and audit process to a limited number of suppliers – because of the significant focus and resources required to introduce the new REACH regulation to suppliers (see below for more details).

However, the campaign launched in 2006 to communicate our strategy on EICC to our suppliers and obtain their commitment has continued. At the end of 2006 the Risk Assessment level 1 had been performed on 40% of key materials suppliers, while by mid-2007 we reached 100%. The signed commitment from suppliers to comply with the EICC Code of Conduct has also now been obtained from 52% of key materials suppliers, compared to 40% in 2006. This commitment by suppliers is addressed and verified on an individual basis as part of the new evaluation process, which is held twice a year. We have worked to ensure that our suppliers understand the commitment and efforts required of them. Based on this experience, we will extend the EICC deployment to our local suppliers, managed by local ST sites.

#### Subcontractors' compliance with EICC

Our Back-end and Front-end subcontractors are managed by two organizations within ST that are both distinct from the organization that manages suppliers. A shared strategy has been defined and is being followed by each organization at its own pace with some minor adjustments where necessary. Regarding Back-end subcontractors, 69% of the 28 companies targeted (corresponding to 56 manufacturing sites) have signed an agreement to comply with the EICC Code of Conduct. In 2007, the EICC Risk Assessment 1 tool has been used to evaluate all subcontractors. The results of this assessment will be used to prioritize our next actions: the implementation of the EICC Self Assessment Ouestionnaire (SAQ) for our high-risk subcontractors. We were not able to make progress on this objective in 2007 because it took us longer than anticipated to complete the other actions described here. The EICC criteria are also now integrated into our management tools and business practices. For example, compliance with the EICC Code of Conduct is included in the quarterly Quality Technical Rating performed on all subcontractors. In 2008, the EICC criteria will be integrated in our new subcontractor evaluation performance tool with a high weighting to reflect the importance of this commitment in our business relationship with subcontractors.

The EICC supplier engagement model has not yet been launched for Front-end subcontractors, but will be launched in early 2008, starting with the request to agree to comply with the EICC Code of Conduct.

For information on ST's compliance with the EICC Code of Conduct in its own operations, see page 58

#### **Objectives 07**



Start integrating the EICC approach in all management tools



Implement performance evaluation system for subcontractors, including EICC criteria



Sign agreements with key subcontractors including EICC compliance obligation



Obtain completion of EICC SAQ on the 15 highest risk key suppliers



Obtain completion of EICC SAQ for the 30 highest risk key subcontractors



Start the EICC audit process with the two highest risk suppliers



Start the EICC audit process with the three highest risk subcontractors

Suppliers' commitment to comply with REACH for ST	
Number of suppliers	100
Committed to be REACH compliant (%)	69
Preparing REACH compliance (%)	22
Not ready for REACH compliance (%)	9

Suppliers' compliance with EICC	2007
Target - Number of suppliers	117
Agreement to comply with EICC (%)	52
EICC Risk-assessment 1 performed (%)	100
EICC Self-assessment questionnaire completed (%)	0
EICC Audit process launched	0
Key suppliers checked against EICC	100

Subcontractors' compliance with EICC		2007
	Back-end	Front-end
Target - Number of subcontractors	28	22
Contract signed with EICC clause	69	0
EICC Risk-assessment 1 performed (%)	100	0
EICC Self-assessment questionnaire completed (%)	0	0
EICC Audit process launched	0	0
Subcontractors checked against EICC	0	0

## Bureau Veritas verification statement to the management of STMicroelectronics NV

Bureau Veritas Certification France has been engaged to provide assurance services to STMicroelectronics

#### Introduction

This Attestation Statement applies to the STMicroelectronics 2007 Corporate Responsibility Report (the 'Report'). The preparation of the Report and its content is the responsibility of STMicroelectronics. The responsibility of Bureau Veritas Certification France is to attest the validity of the data reported herein within the confines of the scope of work set out below.

#### **Scope of work**

The scope of work for Bureau Veritas Certification France was determined following discussions with STMicroelectronincs, as follows:

- 1. Review of the environmental and social performance data for the period 1 January 2007 to 31 December, 2007;
- 2. Information reported, including the GRI indicators;
- 3. Review of systems and procedures for the collection, compilation and consolidation of health & safety, environmental and social data;
- 4. Review of internal quality and consistency controls against such data;
- 5. An overview of the complete Corporate Responsibility Report to ensure its consistency with the findings of our work.

#### **Exclusions from the scope of our work**

The following exclusions apply to the scope of our work:

- The data falling outside the 2007 reporting period, as defined above.
- The information hyperlinked from the 2007 Corporate Responsibility Report.

#### **Basis of our opinion**

The work of Bureau Veritas Certification France was planned and carried out to provide reasonable, rather than absolute assurance and we believe that the work conducted as described in the scope of work above provides a reasonable basis for our conclusions. We relied on the presentations made to us during the course of our work by STMicroelectronics' personnel through interviews, selective sampling and review of documentary evidence including visits to the Geneva headquarters and the Malta site of STMicroelectronics.

#### **Assurance conclusions**

#### It is our opinion that:

- The management of health & safety, environmental and social data for inclusion within the Report is based on systematic procedures and controls.
- Such systems are adequately embedded at the STMicroelectronics sites that we visited, to ensure quality and consistency of the reported
- During the course of our work nothing came to our attention to indicate that there was any material error, omission or misstatement.
- The reported data is reliable and free from significant error or bias and provides a fair representation of STMicroelectronics' environmental, health & safety and social performance.

#### **Considerations and limitations**

In relation to our work and conclusions, the following considerations and limitations should be noted:

- Certain information is excluded from the scope of our work, as stated above.
- Environmental, health & safety and social data are subject to inherent limitations due to their nature and the methods used for determining, calculating or estimating such data. Therefore this independent attestation statement should not be relied upon to detect all errors, omissions or misstatements in the reported data.
- Attestation of data relating to greenhouse gas emissions does not provide a level of verification sufficient for the purpose of emissions

#### Statement by Bureau Veritas of independence, impartiality and

Bureau Veritas is an independent professional services company that specialises in quality, health, safety, social and environmental risk management with over 180 years history in providing independent assurance

Bureau Veritas has implemented a code of ethics across the business which is intended to ensure that all our staff maintains high ethical standards in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.



**Romain PETIT** 

Chief Executive Officer, Bureau Veritas Certification France



## 2007 Key Performance Indicators

	ST's indicators	2005	2006	2007
Company  Percentage of eligible employees who signed the Business Conduct and Ethics Policy (%)	STS01	83	NA	88
	31301	03	14/1	00
Economic Not source (Class)	ST1	0.000	0.054	10.001
Net revenues (\$Usm)		8,882	9,854	10,001
Net earnings (\$Usm)	ST2 ST3	266 3,037	782	(477)
Gross profit (\$Usm)	ST4	0.29	3,523 0.83	3,536
Earnings per share (diluted) (\$US) Gross profit as a percentage of sales (%)	ST5	34.2	35.8	(0.53)
Market share (%)	ST6	3.9	4.0	3.9
R&D expenditures	STE4			1,802
R&D expenditures		1,630	1,668	,
	STE5	9,700	10,300	10,570
R&D engineers and technicians	STE5	6,570	7,195	9,366
ST patent applications field by region	STE6	720	607	497
Social				
Rate of employee turnover	ST12	7.8	8.79	8.81
Job creation / hires by job type	ST12	5,543	7,554	6,212
People recognized	STS26	41,676	77,390	50,171
Accepted suggestions which were implemented (%)	STS34	57	39	62
Average number of meetings in each organization or site during which management presents company/organization/site results to all employees allowing time for open discussion	s STS34a	10	9	10
Average training hours for professionals	STS15	37	30	35
Employee having received > 35 hrs training/year	STS18	40	37	48
Professionals by gender (Men / Women)	STS10	80/20	80/20	79/21
Number of partnerships with universities, colleges, schools	STS44	217	236	335
Total cash donated to charitable associations	STS39	1,645	271	444
Health & Safety				
Recordable case rate	STHS1	0.51	0.59	0.50
Severity rate	STHS2	8.7	8.6	6.7
Environment				
Consumption of electricity (per unit of production): normalized values (kWh)	STEV31	56.7	54.3	52.3
Consumption of water (per unit of production): normalized values (m <sup>3</sup> )	STEV56	34.0	31.3	29.5
Landfill waste (m <sup>3</sup> /production unit)	STEV71	8.3	4.8	5.5
CO <sub>,</sub> emission (PFC+energy+transportation) (kTons)	STEV47	2,146	2,009	1,668
Product Responsibility				
Customer complaints (per million units shipped) (baseline 100 in 2004)	STPR2	82.6	71.6	64.2
Cycle time to process failures analysis (in days) (baseline 100 in 2004)	STPR3	72.7	62.6	71.9
Customer returns (as a percentage of billings) (baseline 100 in 2004)	STPR4	41.1	38.3	40.0
Supply Chain				
Suppliers environmental performance (% of suppliers certified)	STSC1	68.6	74.1	80.0



• references to additional ST and GRI indicators

• explanation when GRI indicators are not reported on.

This index shows where to find full or partial information relating to the Global Reporting Initiative (GRI) core elements and indicators in this report. GRI indicators are shown in the color of the section in which they belong. This index also shows where to find information relating to ST's own performance indicators. These are all prefixed 'ST' and shown in black print.

ST has identified a number of Key Performance Indicators (KPIs), which are shown as . All KPIs have been verified and validated by Bureau Veritas Certification, France.

Information about the Global Compact principles can be found in the html version of this report.

Indicator reference	Content	Pages
Company		
1.1	Chief executive statement	3, 4
1.2	Key impacts, risks and opportunities	3, 4, 5, 7
2	Organizational profile	Reader's guide, 1, 18, 20, 37
3.1-3.4	Report profile	Reader's guide
3.5-3.11	Report scope and boundary	Reader's guide, 18-21, 22-24, 31-37, 46-51, 57, 61-63,
3.12	GRI content index	Inside flap
3.13	Assurance	64
4.1, 4.4, 4.6, 4.8, 4.9	Governance	10-15
4.11-4.12	Commitments to external initiatives	4, 26-27, 58
4.14-4.17	Stakeholder engagement	Reader's guide, 8-9, 20
S01	Community	21, 29-30, 37
S02, S03, S04, HR4, STS01	Corruption	11-14
S05, HR3	Public Policy	26-27, 36, 58-59, 63
Economic		
EC1, STE7, STE8, STE9, STE11, 🔾 STS39, STS39a, STS43, 🔾 STS44	Economic performance	18, 20, 37
EC2	Financial implication and other risks and opportunities due to climate change	44-45, 56-57
EC6, ♦ STE1, STE10	Market presence	59, 62-63,
EC8, EC9	Indirect economic impacts	9, 21, 29, 52-53
STE3, ○ STS44, ○ STE4, ○ STE5, ○ STE6	Sustainable Innovation	21
Social		
LA1, LA2, ST12, STS6	Employment	31
LA4, STHR4, STHR5, STHR6, 😂 STS36, STHR7, 😂 STS34a, STS38	Labor and management relations	36
LA6, LA7, LA8, ♦ STHS1, ♦ STHS2, STH6, STHS 11, STHS12, STSHS13, STEV67, STEV68, ■ 9.1, 9.3	Occupational Health & Safety	40, 41
HR3, LA10, LA12, 🔾 STS15, STS16, STS17, 🔾 STS18, STS21b	Training and Education	26-27, 33
STS26, STS28, STS28a, STS28b, STS34, STS47	Employee empowerment and engagement	34
LA13, STS8, STS9, 🔾 STS10, STS11, STS12, STS12a, STS12b	Diversity and equal opportunity	35
Environment		
EN1, EN3, EN4, EN5, EN7, EN8, EN10, EN30, STEV6, STEV8, ♠ STEV31, STEV35, STEV37, STEV56, STEV58, STEV64,	Material, energy, water; expenditure and investment	44-45, 47-51
EN16, EN17, EN18, EN19, EN20, EN21, EN22, EN23, EN24, EN28, EN29, STEV19, STEV21, STEV23, STEV27, STEV40 STEV46, ♠ STEV47, STEV48, STEV52, ♠ STEV71, STEV72,	Emissions, effluents and waste; Compliance; Transport	44-45, 46, 48-51
EN6, EN26, STPR1	Products and service	44-45, 42, 46, 48, 52, 57
Product Responsibility		
EN27, PR1, PR3, PR5, STEV78, STEV79, STPR2, STPR3, STPR4, STEV78, STEV79	Customer Health & Safety; product and service labeling	57,62
Supply chain		
HR2, ♠ STSC1, STSC2, STSC9, STCV17	Supply chain management	61-63
The html Indicator Index gives more detailed information with:  • additional references to these indicators (html report, 20-F, www.st.com)	This report is in accordance with the 20 (GRI) G3 Guidelines, with an A+ self-deconfirmed by GRI.	, ,

For more information on the GRI Application levels, see:

www.globalreporting.org/GRIReports/ApplicationLevels/

APG	Automotive Products Group
APM	Analog, Power and MEMS
AST	Advanced Systems Technology
BCD	Bipolar-CMOS-DMOS
BE	Back-end
BLIHR	Business Leaders Initiative on Human Rights
BLS	US Bureau of Labor Statistics
CEO	Chief Executive Officer
CID	Communication Infrastructure Division
CMOS	Complementary Metal Oxide Semiconductor
COD	Chemical Oxygen Demand
COO	Chief Operating Officer
CPG	Computer Peripherals Group
CR	Corporate Responsibility
DART	Days Away from work, job Restriction, job Transfer
DFE	Design For Environment
DMOS	Double Diffused Metal Oxide
	Semiconductor
Ecopack®	Lead-free labeling for RoHS- compliance (the EU Directive on Restriction on Use of Hazardous Substances)
EFQM	European Foundation of Quality Management
EICC	Electronics Industry Citizenship Coalition
EHS	Environment, Health & Safety
EMAS	Community Eco-Management and Audit Scheme
ePA	Online performance appraisal tool
E-TASC	Electronics - Tool for Accountable Supply Chains
Fabless	Describes a semiconductor company with no wafer production facilities. Fabless semiconductor companies rely on silicon foundries to produce parts
FE	Front-end
GeSI	Global e-Sustainability Initiative
GHG	Greenhouse Gases
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GRI	Global Reporting Initiative
GSM	Global System for Mobile
HED	Home Entertainment and Displays Group
HR	Human Resources
H&S	Health & Safety
ICB	Informatics & Computer Basics
ICT	Information and Communication Technologies
ILO	International Labor Organization
IMS	Industrial and Multisegment Sector
In-Check™	ST Lab-on-Chip platform
IP-CHECK	
ISO	Intellectual Property International Organization for Standardization
ITC	
ITS	Intelligent Transportation Systems and Services

KPI	Key Performance Indicator
LAN	Local Area Network
LCD	Liquid Crystal Display
LOP	Local Operating Procedures
MEDEA+	Micro Electronic Development for European Applications
	(the continuation of JESSI)
MEMS	Micro-Electro-Mechanical Systems
Microfluidic	Science of designing, manufacturing,
	and formulating devices and processes that deal with tiny volumes of fluid measured in units of nanoliters or picoliters
MMC	Mobile, Multimedia and Communications Group
MMS	Microcontrollers, Memories and Smartcards Group
MPEG	Moving Picture Expert Group
MTCE	Metric Tons of Carbon Equivalent
NAND	Not And
NGO	Non-Governmental Organization
NOX	Nitrogen Oxides
ODS	Ozone depleting Substances
OEM	Original Equipment Manufacturers
OHS	Occupational Health & Safety
OHSAS	Occupational Health & Safety Assessment Series (OHSAS 18001)
PFCs	Perfluorinated Compounds
PFOs	Perfluoro-octane Sulfonate
POC	Products of Combustion
R&D	Research & Development
R11	ChloroFluoroCarbon (CFC) and is also called CFC 11. It is an Ozone Depleting Substance. Its chemical name is Trichlorofluoromethane
RC	Recordable case rate
REACH	Registration, Evaluation and
	Authorization of Chemicals
RF-CMOS	Radio Frequency-Cellular Management Operation System
RF-EEPROM	Programmable Read Only Memory
RFID	Radio Frequency Identification
R/W	Read/Write
RoHS	Restriction of Hazardous Substances
SAM	Serviceable Available Market
SAQ	Self-Assessment Questionnaire
SCS	Secured Communicating Solutions
SE	Sustainable Excellence
SEC	Securities and Exchange Commission
SME	Small and Medium-sized Enterprise
SOP	Standard Operating Procedures
SOX	Sulfur Oxides
SPG	Subsystems Product Group
SR	Severity Rate
SRI	Socially Responsible Investment
STU	ST University
SVHC	Substances of Very High Concern
TCE	Tons of Carbon Equivalent
TQCR	Total Quality & Corporate Responsibility organization
TQM	Total Quality Management

VOCs	Volatile Organic Compounds
WBCSD	World Business Council for Sustainable Development
WEEE	Waste of Electrical and Electronic Equipment
WLAN	Wireless Local Area Network
20-F	Annual report filed with the Securities and Exchange Commission
3G	Third Generation of mobile phone standards and technology

#### **GRI** indicator prefixes

EC	Economic Impact
EN	Environment
HR	Human Rights
LA	Employment
PR	Product Responsibility
SO	Society

#### ST indicator prefixes

ST	Company
STE	Economic
STEV	Environment
STHR	Human Rights
STHS	Health & Safety
STS	Social
STSC	Supply Chain
STSO	Company
STPR	Product Responsibility

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