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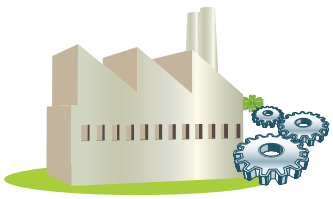
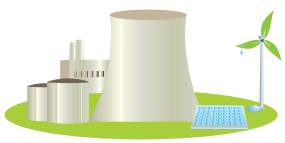
BUSINESS REVIEW and
SUSTAINABLE DEVELOPMENT REPORT

2009

SPIE, A PLAYER IN THE GREEN ECONOMY







SPIE, sharing a vision for the future

THE GREEN ECONOMY,

PREPARING THE WORLD OF TOMORROW

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To read QR codes on your mobile phone,
download the mobiltag application
from www.mobiletag.com
You need to have an autofocus function (I Phone 3 GS...)

SPIE, a player
in the green economy

Focused on the future and underpinned by **shared values, SPIE is committed** to developing ever more responsibly, day after day alongside its customers. This commitment is based on a deep respect for our **corporate ethics** and **social environment.** Leveraging the extensive skills of our employees, **SPIE designs and delivers** long-term solutions that respond to the **energy and environmental challenges** facing communities and businesses while optimising the use of natural resources.

A 40% REDUCTION IN CO_2 EMISSIONS BY 2030*

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According to the McKinsey Report*, curbing climate change is both urgent and possible. In fact, technologies and production processes that emit fewer greenhouse gases already exist and are as beneficial to the economy as they are to the environment.
If all technological options were deployed, worldwide greenhouse gas emissions could effectively be reduced by 40% by 2030, compared with 1990 levels. This would be enough to limit global warming to less than 2°C, provided that action is taken now.
That's why at SPIE, we're gearing up across Europe through our local network, as part of a commitment to working closely with all stakeholders to meet this crucial challenge for the future.

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Pathways to a Low-Carbon Economy, January 2009 – reference report for the Copenhagen Summit, published by the McKinsey Global Institute.

ENERGY AND ENVIRONMENTAL SERVICES THROUGHOUT THE ENTIRE PROJECT LIFE CYCLE

SPIE in pictures

www.myspie.eu

The words highlighted in white can be found in the glossary on pages 68-71

USING NATURAL RESOURCES

Massive investment in renewable energies and biofuels is expected to reduce CO_2 emissions by 12 gigatonnes a year by 2030. Moreover, at a time when natural resources are increasingly scarce, it is crucial to effectively manage fossil energies and develop carbon-free energy sources. Engaged on all energy fronts, SPIE is committed to reducing the carbon footprint and protecting the environment. In the oil and gas industry, for example, we are active in flaring, energy and environmental efficiency initiatives, decontamination of oil-polluted soil and geological carbon storage.

IMPROVING THE URBAN LIVING ENVIRONMENT

After the publication of Agenda 21 at the Rio de Janeiro Earth Summit in 1992, the EU's Energy and Climate Package has further strengthened the resolve of communities and businesses to pursue environmentally friendly policies. A "20-20-20" target has been set for 2020 that involves reducing greenhouse gas emissions by 20%, improving energy efficiency by 20% and using renewable sources for 20% of EU energy consumption. At SPIE, we are helping to meet these goals by implementing practical solutions in many urban areas. These range from optimising public lighting systems to improving mass transport and enhancing the energy efficiency of service-sector buildings and manufacturing facilities.

SUPPORTING REGIONAL DEVELOPMENT

Regional authorities oversee a wide range of infrastructure projects that are managed in compliance with the principles of sustainable development. This infrastructure includes motorways, rail lines, airports, navigable waterways, water treatment plants and waste incineration facilities, aswell as the deployment of broadband networks and the burial of power lines. Alongside local and regional authorities, we deploy managed infrastructure development projects that range from energy and environmental planning to optimised equipment and installation maintenance. Our multitechnical services cover airport facilities as well as rail/road and other multimodal transport solutions.

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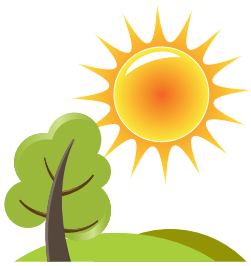
PREPARING THE WORLD OF TOMORROW



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66 GREEN GLOSSARY,
SHARING A COMMON LANGUAGE

Download this document on your mobile phone.

A PARTNER OF LONG-TERM CONFIDENCE

As the **European leader** in electrical, mechanical and HVAC engineering, energy, and communication systems, SPIE **improves the quality of our living** environment by helping local and regional authorities and businesses to **design, build, operate and maintain facilities** that are more **energy efficient** and environmentally **friendly**.

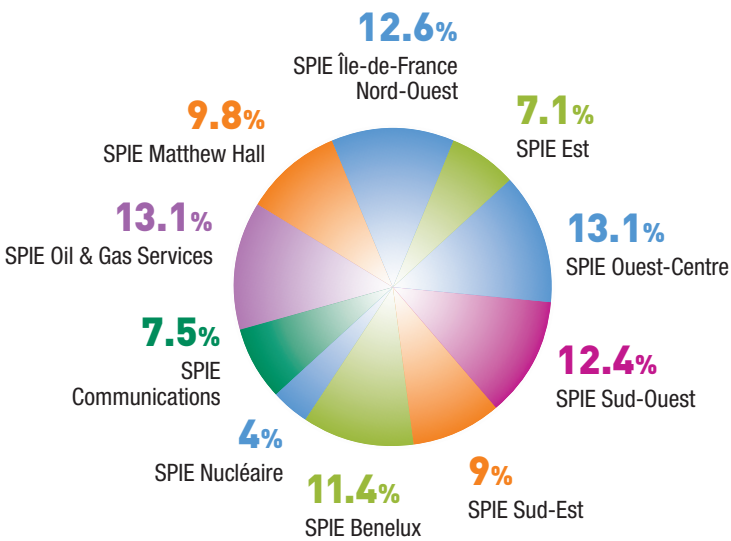
As a partner of long-term confidence, SPIE is committed to being a **source of continuous improvement** for all stakeholders – customers, employees and shareholders.

FINANCIAL HIGHLIGHTS

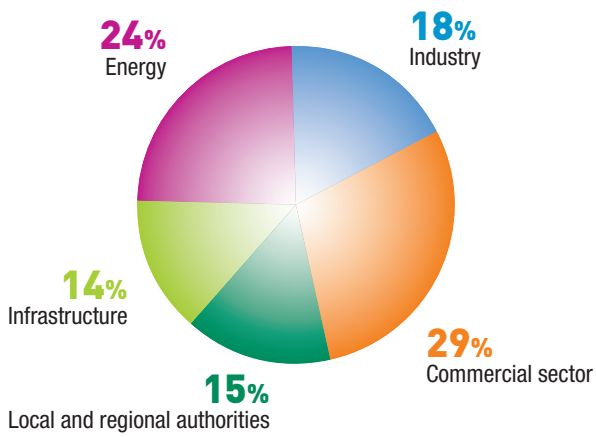
Despite a challenging economic environment, 2009 was a good year for SPIE. Thanks to the concerted efforts of all our teams and our ongoing acquisitions, revenue was maintained at €3.7 billion and EBIT again rose, to €182.5 million.

3.7 BILLION EUROS IN REVENUE

28,500 EMPLOYEES



Revenue by subsidiary
Total: €3,725 M



Revenue by market
Total: €3,725 M

Media release:
2009 results

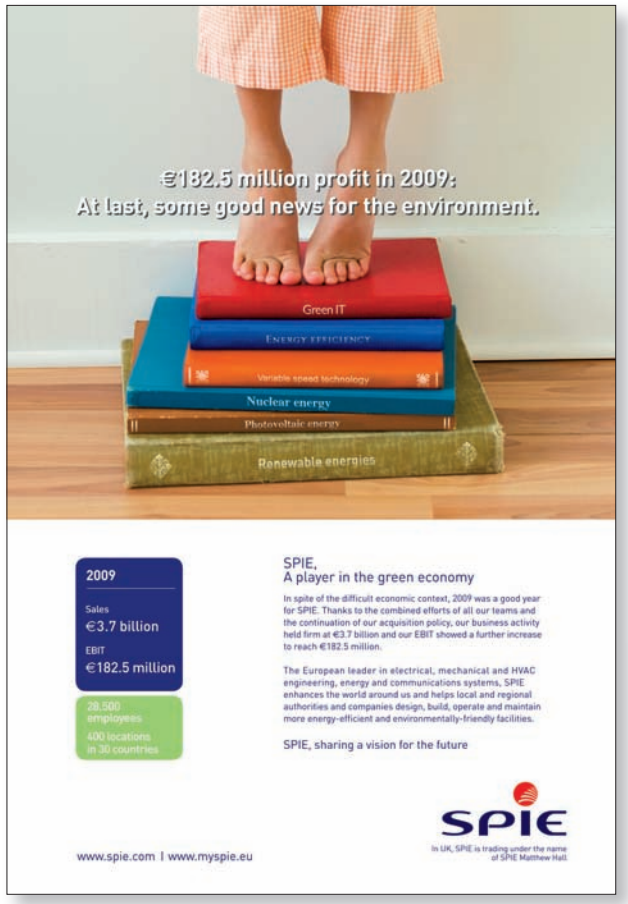
up 6%

EBIT

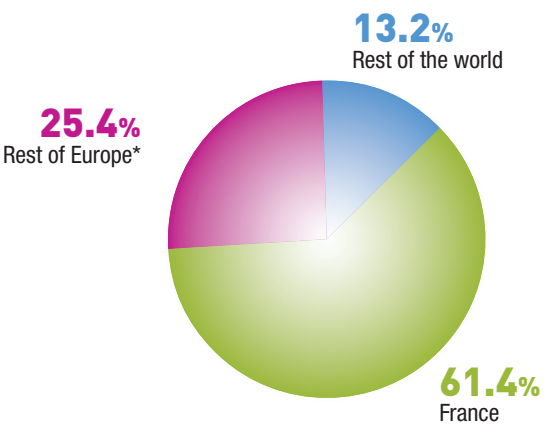
In 2008 **€172.9 M**

In 2009 **€182.5 M**

In 2009, EBIT rose by 6% to the Group's target of €182.5 million With EBIT representing 4.9% of revenue, SPIE is positioned among the industry leaders. The balance sheet again improved in 2009. With negative working capital requirement for the fourth year in a row, the Group's cash flow exceeded targets. Net debt declined sharply for the year, lowering the debt-to-EBITDA ratio to 3.2.

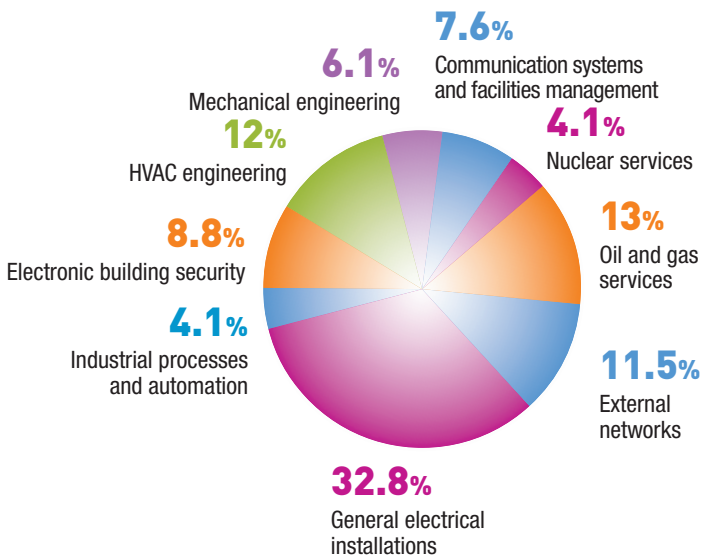


European advertising campaign announcing SPIE's 2009 results.



Revenue by region
Total: €3,725 M

*Belgium, Germany, the Netherlands, Portugal, Spain, Switzerland and the United Kingdom



Revenue by business
Total: €3,725 M

INTERVIEW WITH GAUTHIER LOUETTE

CHAIRMAN AND CHIEF EXECUTIVE OFFICER OF SPIE

How do you view 2009?

It was an unusual year that I would characterise as a year of transition for SPIE. After a strong carryover in orders from 2008, the second half of 2009 was more challenging, with performance varying from one market to another. Projects were cancelled or postponed, especially in industry, while our businesses made solid advances in some markets, such as energy. The same variances were apparent at regional level. The United Kingdom, for example, was hard hit by the financial crisis while other European countries were relatively spared. In a weakened economic environment, our teams had to demonstrate a great deal of initiative and responsiveness to meet their margin objectives. Paradoxically, I would say that we emerged from this challenging year stronger than before, thanks to adjustment measures and a more flexible organisation. We now need to move beyond this phase, which will be our challenge in 2010.

Many companies in your sector were negatively impacted in 2009. How were SPIE's results?

We performed relatively well, given the sharp contraction in our markets and the strong pressure on prices. Revenue was maintained at €3.7 billion, down slightly from 2008, while EBIT again improved despite a decline in unit sales. The 3% decline in organic growth was offset by acquisitions financed entirely out of cash flow. Approximately ten companies were acquired in Europe, including WHS, a leading British provider of electrical and instrumentation services to the energy sector. Our EBIT margin stood at 4.9% of revenue, ranking us among the best in our business. We continued to pay down debt, reducing our net debt-to-EBITDA ratio from 3.5 to 3.2, a level of debt generally found among companies that have not been acquired by management.

How did SPIE perform from one region to another?

In Western Europe, our environmental services business turned in a satisfactory performance despite the region's recessionary economy. In the Netherlands and France, we were involved in carbon capture and storage pilot projects for industry customers. In Portugal, we established a forefront presence in water treatment, a business that grew by 25% year on year. In the United Kingdom, application of the low-carbon agenda led to substantial order intake in the commercial sector. More broadly, we took part in major renewable energy projects involving photovoltaic solar energy systems, positive energy buildings, hydroelectric power plants, offshore wind farms, and biomass production systems. In inter-

Being independent allows us to remain open, stable and resilient and to cultivate our core values of local service, responsibility and performance. These values underpin a community of entrepreneurs representing many different cultures and nationalities.

Full interview with Gauthier Louette on France Info

The green economy has become essential for those who shape and manage our living environment. The green economy simply means integrating carbon constraints – or more generally, resource restraints – into the overall economic picture.

national markets, where our oil and gas business accounts for more than 6% of EBIT, we were able to take advantage of operators' environmental concerns about the need to reduce flaring and make platforms more energy efficient.

How do you explain these results? Is it the solidity of your business model or are there other factors to take into consideration?

Our business model is especially well suited to the current period of uncertainty. We have a broad portfolio of relatively non-cyclical, non-capital intensive businesses. Nonetheless, we're also faced with a fluctuating economic situation, shaped by a recalibration of customer strategies and significant changes in public-sector policies. I'm thinking, for example, of France's Economic Modernisation Law (LME), which has led us to revise our procurement policies thereby protecting working capital requirement. Other internal initiatives are also essential to withstanding the recession. These include ensuring management and organisational quality, carefully choosing our tenders, effectively managing risk and rigorously controlling overheads. In all of these areas, we've launched improvement processes and will continue to be highly vigilant, deploying appropriate measures.

The effects of the current crisis are more than just temporary. They reflect a major disruption in the global economy. How are you planning to adapt to this situation?

Global economic problems are due mainly to the shortcomings of the development model in a world of limited resources. Our planet is threatened and if we wait any longer we'll jeopardise the quality of life of future generations. Given this situation, the green economy has become essential for those who shape and manage our living environment. The green economy simply means integrating carbon constraints – or more generally resource restraints – into the overall economic picture. That's precisely the direction in which we've been moving in recent years, working with customers to develop clean or renewable energy solutions and to optimise their use of energy and raw material resources. What's new is an emerging global market that wants us to align our product and service portfolio with current priorities, be a source of innovative solutions and more effectively take into account today's standards and regulations.

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SPIE isn't the only company in your industry that is focusing on the green economy. In the end, isn't it a question of time-to-market?

It's hard to improvise in this area. In 2003, SPIE signed the United Nations Global Compact and in 2007, we became the first company in France to be awarded an energy-efficiency label by the National Association of Electrical and Environmental Engineering Companies (SERCE). In addition to more broadly extending our environmental management system, for the past three years we've been calculating the carbon footprint of our operations. Today, our efforts focus on the green value chain, from sustainable purchasing practices and improved working procedures to staff training initiatives and the integration of environmental protection measures into our operations. These measures include eco-managing vehicle fleets, recycling waste, reducing energy and resource consumption and printing documents on request. Aligning our products and services with environmental challenges is just one part of our commitment. First and foremost, we need to view our businesses differently. That's why new indicators have been introduced. Thanks to our initial carbon footprints, we've learned, for example, that SPIE emits 190 grams of carbon dioxide for ever euro of revenue generated.

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In 2009, SPIE grew through acquisitions

FRANCE

SPIE Île-de-France Nord-Ouest

- **MOUTY** – Electrical installations for industrial and commercial facilities
- **FPEE** – Utility distribution and plumbing services for exhibition centres

SPIE Sud-Ouest

- **EMCS** – HVAC engineering
- **Thermi Automation** – HVAC engineering
- **FICA** – Industrial refrigeration processes
- **BEA** – Industrial power
- **SOMINTEL** – Installation of telecommunication equipment

SPIE Est

- **ARM-IRM** – Automated electromechanical systems

SPIE Ouest-Centre

- **Angot and Atec Energie** – Energy - Electrical installations

SPIE Sud-Est

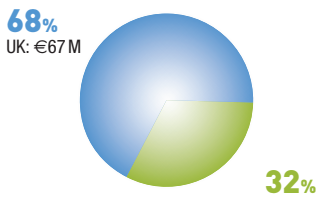
- **GTEC** – Electrical installations

UNITED KINGDOM

SPIE UK

- **WHS** – Electrical and instrumentation installations

2009 revenue from acquisitions (pro forma)



Your company operates in around 30 countries and is also one of the few in the industry that has affirmed its independence. What challenges are you faced with and what are your strategic priorities?

SPIE has been strongly rooted in Europe for more than a century yet has developed in the international marketplace through its energy business. Being independent allows us to remain open, stable and resilient and to cultivate our core values of local service, responsibility and performance. These values underpin a community of entrepreneurs representing many different cultures and nationalities. We're committed to pursuing our development with pragmatism and determination. This implies adapting to the emergence of a new resource economy, which represents a major change. We have to clear up a misunderstanding about "green" growth: growth necessarily means using more natural resources. Our businesses will help to develop a green economy in which growth is still possible.

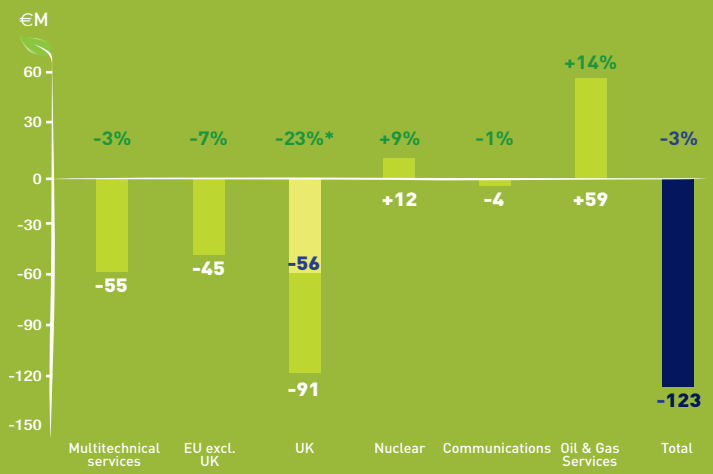
Are your teams ready for this change?

I fully believe that our teams are ready to meet this exciting challenge. For example, safety has been one of our top priorities for many years and our accident rate is one of the lowest in the business. The transition toward a green economy is just as important for us. In addition to technical issues, it involves a deep-seated transformation of our actions and attitudes. We're constantly confronting this challenge at all levels of the organisation – from technicians on the frontline to the senior management team. We've already launched a number of ambitious projects in this area.

Are your customers ready to accompany you in this adventure?

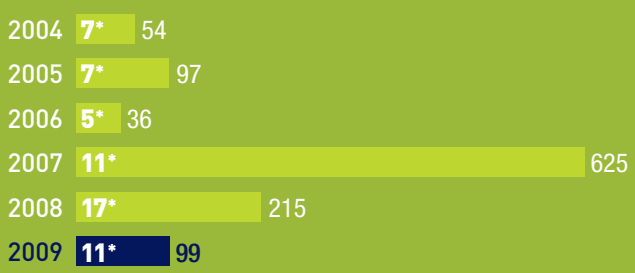
Our customers are no different from us. They have taken a realistic look at what's happening and are attempting to reconcile their profitability goals with the challenges of sustainable development. In today's world, we all know that business performance is necessary but not sufficient in itself. We need to give meaning to our actions and to engage ourselves fully in a process of economic and social transformation that we can neither ignore nor avoid. We want to share our entrepreneurial spirit by leveraging our expertise to ensure that customers' projects are successful. We're fortunate in that we know their businesses inside and out. It's up to us to provide them with exemplary service and effective support in meeting their energy and environmental challenges. We're pursuing this commitment forcefully and fervently by delivering solutions that can be immediately applied in all business sectors.

2009 / 2008 REVENUE (PRO FORMA) BY STRATEGIC SEGMENT:
AN OVERALL DECLINE OF 3% EXCLUDING ACQUISITIONS



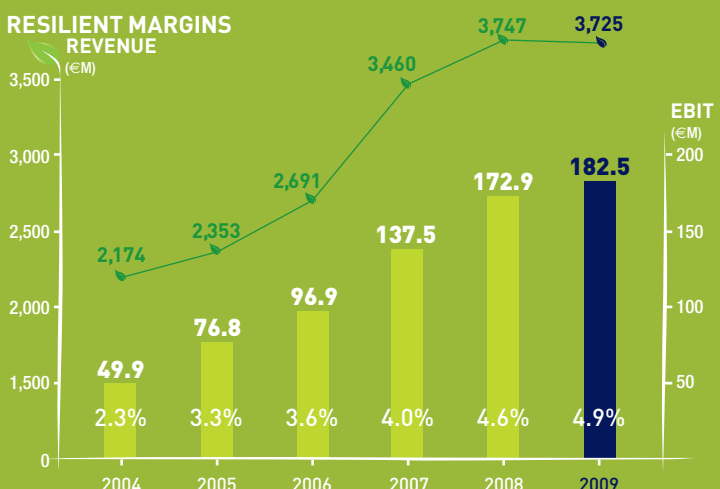
*-14% excluding the currency effect

A DYNAMIC ACQUISITIONS STRATEGY
REVENUE OF ACQUIRED COMPANIES (FULL YEAR IN €MILLIONS)



*Number of companies acquired

RESILIENT MARGINS



In a weakened economic environment, our teams had to demonstrate a great deal of initiative and responsiveness to meet their margin objectives.

SPIE Shareholding

SENIOR MANAGEMENT TEAM

WORKING TRANSPARENTLY WITH THE ENTIRE ORGANISATION

1 **Gauthier Louette**
Chairman and Chief Executive Officer, SPIE SA

2 **Thierry Baussart**
Managing Director, SPIE Sud-Est

3 **Yves Compañy**
Managing Director, SPIE Oil & Gas Services

4 **Alfredo Zarowsky**
Strategy and Development Director, SPIE SA

5 **Pascal Poncet**
Managing Director, SPIE Est (France) and Germany

6 **Pierre Vanstoflegatte**
Managing Director, SPIE Sud-Ouest (France), Portugal and Spain

7 **Denis Chêne**
Finance and Administration Director, SPIE SA

8 **Grahame Ludlow**
Chairman, SPIE UK

9 **Thierry Smagghe**
Human Resources Director, SPIE SA

10 **Francis Butel**
Managing Director, SPIE Nucléaire

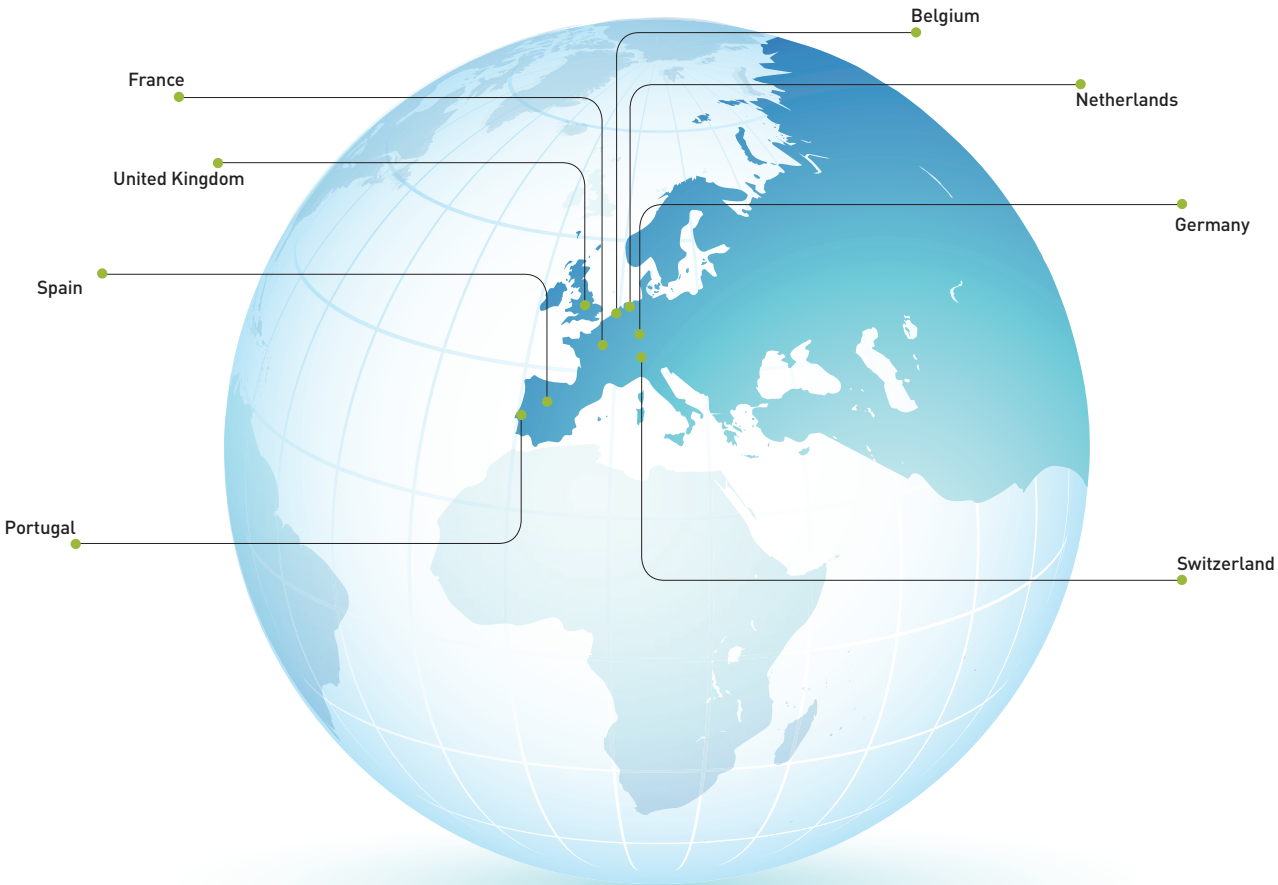
11 **Patrick Waterkeyn**
Managing Director, SPIE Benelux

12 **Gilles Brazey**
Managing Director, SPIE Communications

13 **Philippe Cosson**
Managing Director, SPIE Île-de-France Nord-Ouest

14 **Jean-Louis Voillot**
Managing Director, SPIE Ouest-Centre (France) and Morocco

EUROPE



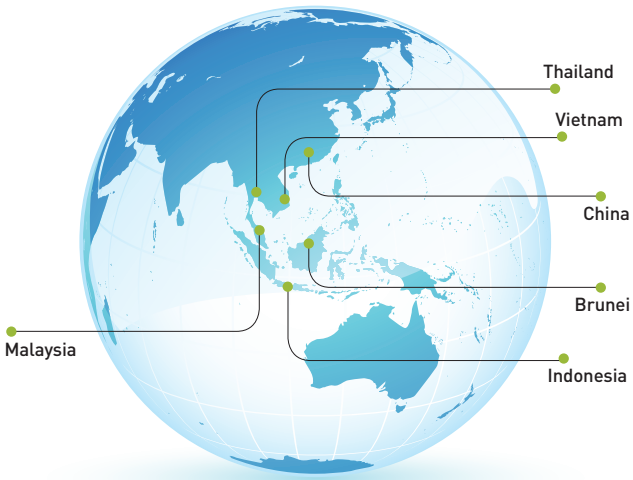
SPIE, EUROPEAN OBJECTIVES...

SPIE locations

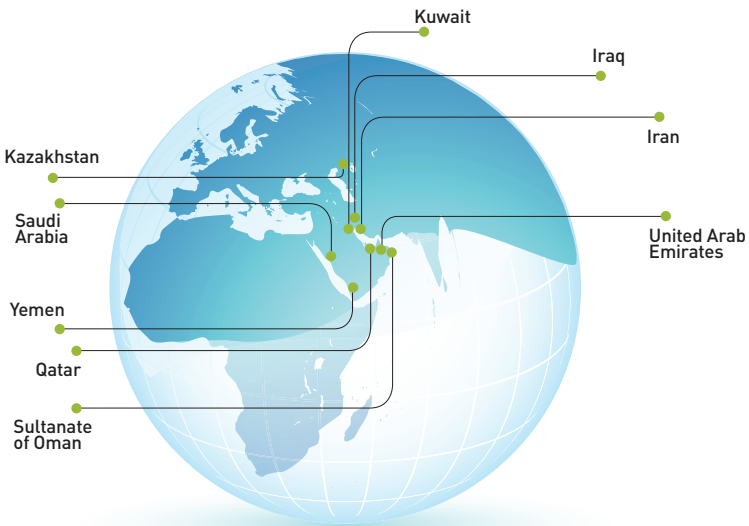
75 NATIONALITIES, **400** LOCATIONS,
31 COUNTRIES, **28,500** EMPLOYEES

AFRICA

ASIA & PACIFIC



MIDDLE EAST



SOUTH AMERICA

... A FOREFRONT PLAYER IN OIL AND GAS SERVICES

SPIE, a recognised expert in green energy

///// RENEWABLE ENERGIES

In Gang, in northern Belgium, solar energy specialist Ikaros contracted with SPIE Belgium to install 36,000 sq.m of panels on the roofs of buildings belonging to Van Hoorebeke Timber, a wood importer. The project involved evenly distributing some 6,700 photovoltaic panels since the roof, which is made of Eternit®, can support a weight of only 100 kg/sq.m.

SPIE and the Green Office® project

///// POSITIVE ENERGY

SPIE Île-de-France Nord-Ouest is taking part in the Green Office® project, the first large-scale positive energy building programme in France, located in Meudon near Paris. This forward-looking project managed by Bouygues Immobilier aims to sharply reduce consumption, produce energy on site and ensure eco-friendly building management. SPIE provides a range of services, including energy production from three biomass cogeneration power plants, the ventilation network and air processing units; the installation of ceiling coverings with integrated heater tarps and fans.

THE YEAR'S HIGHLIGHTS

A NEW STAGE IN OUR COMMITMENT TO RESPONSIBLE DEVELOPMENT

SPIE news
on your mobile

SPIE synergy

///// GREEN ENERGY PRODUCTION

Industrial power and control systems were installed by TechnoSPIE and SPIE Sud-Ouest teams for a biomethanation plant built by VALORGA International in Abrunheira, Portugal. The project involved assembling, testing and commissioning the installation. Every year, the facility will process 120,000 tonnes of organic waste collected through waste-sorting programmes in four communities to produce biogas that will generate 4,200 MWh of electrical power.

Remote management of lighting systems

///// ENERGY EFFICIENCY

The city of Sisteron has received two awards for the lighting system that illuminates the Citadelle and the Baume mountain. It shared first prize in the 2009 Lighting Competition organised by the National Association of Electrical and Environmental Engineering Companies (SERCE) and also received a local award presented by the French Building Federation (FFB), the Association of French Mayors, Dexia and France's Cultural Heritage Foundation (FP). Designed by SPIE Sud-Est teams, the lighting system complies with very strict environmental constraints as well as energy-reduction objectives.

SPIE outfits a biodiesel plant

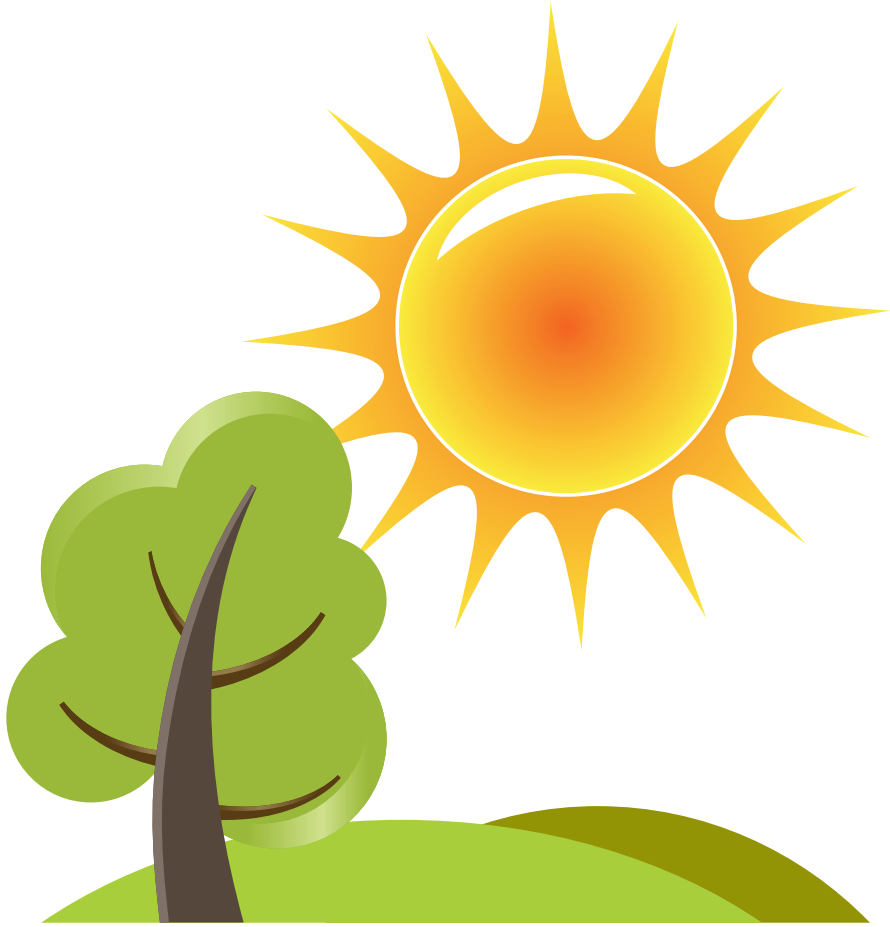
///// NEW ENERGIES

In Spain's Andalusia region, SPIE Ibérica teams assembled mechanical systems, including piping, equipment and metal structures, for Biosur's biodiesel plant in the port of Huelva. The project required considerable human and technical resources to meet high quality and safety standards.

SPIE wins another Grand Prize for Safety

///// SAFETY

For the second year in a row, SPIE Sud-Ouest won the Grand Prize for Safety awarded by the National Association of Electrical and Environmental Engineering Companies (SERCE) and the Public Works Prevention Trade Organisation (OPPBTP). The award recognises the subsidiary's lost-time injury rate, which is among the lowest in the industry at 2.8 for 4.5 million hours worked. In competition for the first time, SPIE Nucléaire won the top prize for its temporary worker safety programmes.



BUSINESS DEVELOPMENT, REAFFIRMING OUR RESPONSIBILITY

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Social and environmental commitments

Safety excellence award for SPIE Belgium.

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Managing responsibly

Signing of the Agefiph - SPIE Sud-ouest agreement.

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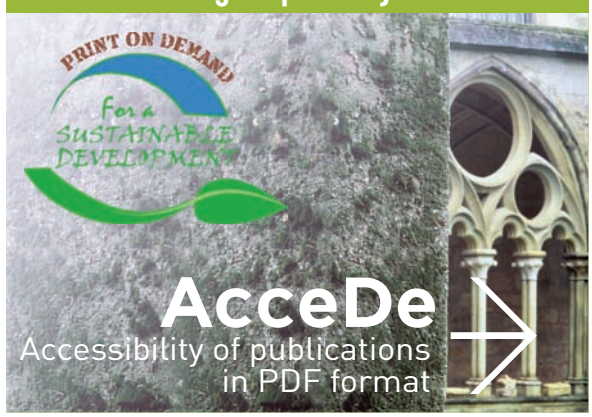
Communicating responsibly



Innovation and responsibility.

SPIE and sustainable development

The green economy represents a unique opportunity to reconcile **the development of human activity** with resource depletion and global warming. Thanks to its extensive local presence, operations that **improve the living environment,** and the recurring nature of its businesses, SPIE leverages a **business model** that is fully aligned with this **challenge facing our planet.**

EMBRACING SUSTAINABLE DEVELOPMENT

In 2009, in an environment shaped by the redeployment of the economy to integrate environmental challenges, SPIE pursued its sustainable development initiatives, which are fully aligned with its business model.

Committed to responsible development for many years, SPIE intends to fully integrate energy and climate concerns into its operations by activating a number of levers:

- Optimising management of its energy and environmental assets, backed by a full range of expert capabilities in energy efficiency and renewable energy sources.
- Adjusting its skills clusters to take into account the challenges of the green economy, through services tailored to each business sector.
- Eco-managing processes, from sustainable purchases to electrical waste recycling and reductions in the carbon footprint.
- Reaffirming its corporate values, with support measures to help customers achieve lasting change.

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Expertise in new regulatory requirements

SPIE has joined with APAVE, the French risk control agency, to create an intelligence unit that diligently tracks regulatory documents in order to stay attuned with the latest changes in safety and environmental requirements. A hotline has been set up to answer questions from the frontline. The system's efficiency has led a number of customers, including France's Atomic and Alternative Energies Commission and Totalgaz, to contract with SPIE to manage regulatory developments for equipment installed or maintained on their sites.

APPLYING AN ECO-RESPONSIBLE BUSINESS MODEL

Over the years, SPIE subsidiaries have been engaged in initiatives as part of their ISO 14001 environmental management systems. To spearhead SPIE's development, these measures were intensified in 2009 in such areas as work-related travel, waste sorting, energy audits and monitoring of regulations and standards. SPIE Sud-Est, for example, has embarked on the Ginkgo project to integrate social and environmental responsibility into all aspects of its business. Deploying a collaborative approach in which each individual becomes a sustainable development enabler, the project covers carpooling and alternative transportation systems, as well as environmentally friendly actions, eco-driving techniques and sustainable purchasing practices that can be applied every day.

At corporate level, SPIE continued to calculate the carbon footprint of its operations, with the goal of reducing CO_2 emissions. It also pursued its commitment to sustainable purchasing. Initiatives in this area are designed to reduce packaging, enhance the environ-

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CORPORATE GOVERNANCE

Management Committee
The Management Committee, which meets once a month, is comprised of the Chairman and Chief Executive Officer, the Finance and Administration Director, the Human Resources Director, the Strategy and Development Director, and the subsidiary Managing Directors. It defines and deploys the company's operating strategy and coordinates initiatives.

Audit Committee
The Audit Committee reviews the Group's internal procedures with regard to financial commitments, gives an opinion on draft financial statements and accounting policies, and shortlists candidates for appointment as the statutory auditors.

Acquisitions and Disposals Committee
The Acquisitions and Disposals Committee studies proposed acquisitions or disposals totalling more than €5 million and representing revenue of over €15 million. It then submits a written report to the Board of Directors.

The Compensation Committee
The Compensation Committee makes recommendations to the Board of Directors on the compensation of Gauthier Louette, Denis Chêne and other executives, and on any significant changes in collective agreements or the Group's employee relations strategy. It also informs the Board of decisions concerning managers other than officers.

The Risk Assessment Committee
The Risk Assessment Committee authorises project feasibility studies, capital projects and legal proceedings, and ensures compliance with internal competitive bid procedures. It meets at least twice a year.

The Ethics Committee
The Ethics Committee is comprised of the Chairman and Chief Executive Officer, the Human Resources Director and the Sustainable Development Director. It meets periodically to analyse reported data and decides, when necessary on appropriate actions to enhance employee commitment to the Group's guiding principles and to upgrade processes as part of a continuous improvement programme.

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mental quality of materials used, and improve recycling of electrical equipment. In France, the partnership with Récylum has increased the amount of recycled fluorescent tubes and light bulbs from 17 tonnes to 40 tonnes in three years. In second-half 2009, SPIE helped to set up a new channel for processing special equipment, such as emergency light fittings, video surveillance equipment and traffic lights. This experiment proved so successful that it will be extended in 2010.

DESIGNING INNOVATIVE, LASTING SOLUTIONS

Technological innovation has enormous potential to improve environmental performance. In the commercial sector, SPIE is a major player in low-energy and energy-plus buildings. It was also the first French company in its sector to receive the HQE Exploitation environmental label for its sustainable asset maintenance programmes. For local and regional authorities, SPIELUM® offers an array of solutions to ensure environmentally friendly urban management programmes. These solutions range from public lighting systems to the installation of photovoltaic panels, for example on school buildings. For industry customers, SPIE has built a reputation as an expert in variable speed systems for rotating machines, which account for up to one-third of energy consumption in the sector. SPIE's commitment to innovation is backed by a decentralised approach involving skills clusters and specialised committees. This approach enables the development of capabilities adapted to each business sector and the transfer of skills throughout Europe. It is also supported by the wholehearted involvement of employees, who want to improve their job-

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A major advance in low-carbon vehicles

In Strasbourg, SPIE is involved in an experimental low-carbon vehicle project alongside French power utility EDF and Toyota. In this project backed by municipal authorities, the Agency for Environment and Energy Management (ADEME) and the French government, SPIE is among the test users chosen to conduct experiments with plug-in hybrids and vehicle recharging systems. More broadly, SPIE is a member of a group of companies commissioned by the French government to develop specifications for an EV intended for business use. The goal is to support the emergence of a manufacturing channel to meet demand for this type of vehicle. Already, SPIE has pledged to purchase 750 EVs by 2015.

The Quality, Safety and Environment network's sustainable development forum, during which employees tested best frontline practices.

specific competencies. Every year, an innovation contest is held to identify new approaches, not only with regard to technologies but also in the areas of services, organisational structures and methods.

ENSURING SAFETY AND WELL-BEING

Day after day, SPIE is committed to creating a work environment that is safe and adapted to the requirements of each business. In this regard, safety is the company's most important obligation. Three-quarters of employees work under safety management systems that have been certified to OHSAS 18001 or equivalent standards, with a lost-time injury rate that is among the lowest in the industry. This rate was reduced to 5.1 in 2009, thanks to ongoing efforts that were recognised by a number of awards received during the year. These include the SERCE-OPPBT Grand Prize for Safety in France; the Excellence in Safety award from Belgium's High Council for Workplace Prevention; the Occupational Health and Safety Gold Award in the United Kingdom; and an award for outstanding contributions to workplace health and safety in Portugal. SPIE is also committed to fostering employee well-being on the job. In a recessionary economic environment, stress is an increasingly prevalent job risk. In 2009, without waiting for new regulations to be adopted, SPIE launched prevention measures – defining indicators, introducing 360° reviews and stress-management training programmes for managers, publishing a booklet on ways of coping to raise awareness among employees, and conducting interviews and audits on the front line. In the area of health prevention, procedures for managing job-related illnesses were improved with initiatives to build awareness of musculoskeletal disorders based on ergonomic improvements in hand-held electrical equipment.

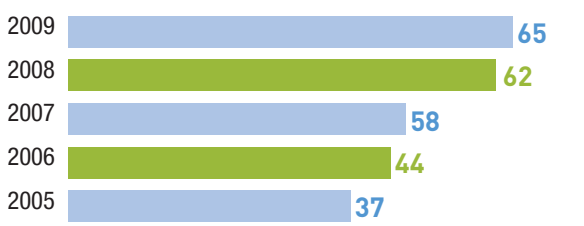
REAFFIRMING OUR CORPORATE VALUES

A sense of corporate responsibility, respect for others and a spirit of solidarity are indispensable for people living in a community. Following the launch of the Diversity Charter in 2008, the first diversity committee meetings were held in 2009 to coordinate initiatives in such areas as gender parity and hiring the disabled. In France, a work/study programme for electrical network installers was created in partnership with a number of building trade associations and disability employment services. In international markets, SPIE is also committed to respecting the principles of sustainable development in its operations. In the oil and gas services sector, national framework agreements have been signed for training local operators and technicians. After Yemen, Angola and Congo, new training centres were opened in Oman and Iran.

The green economy: at the heart of our commitments and convictions

Developed by the Management Committee in 2009, a project entitled "SPIE, a player in the green economy" will be deployed in subsidiary operating units in 2010 with the goal of achieving three main objectives: fully integrating environmental challenges into corporate strategy, pursuing opportunities to develop the businesses and improve operating procedures, and involving team members in a motivating, federating projects aligned with our corporate values.

Units with environmental management systems certified to ISO 14001 standards (% of total employees)



THE GLOBAL COMPACT: AN INTERNATIONAL COMMITMENT

SPIE joined the United Nations Global Compact in 2003, thereby committing to apply its principles in the areas of human rights, labour, the environment and anti corruption.

PRINCIPLES	EXAMPLES AT SPIE
HUMAN RIGHTS	
• Businesses should support and respect the protection of internationally proclaimed human rights, within their sphere of influence. • Make sure they are not complicit in human rights abuses.	• OHSAS 18001 workplace prevention/safety management system. • National agreements in Africa and the Middle East to employ locals. • Ethics alert system.
LABOUR	
• Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining. • The elimination of all forms of forced and compulsory labour. • The effective abolition of child labour. • The elimination of discrimination in respect of employment and occupation.	• A social dialogue organisation within the European Works Council. • Agreement on health care expenses. • Diversity Charter. • Creation of a Diversity Committee. • Corporate social responsibility audit performed by Vigeo at SPIE's request. • Work-related stress prevention measures. • SPIE, partner of AcceDe project
ENVIRONMENT	
• Business should support a precautionary approach to environmental challenges. • Undertake initiatives to promote greater environmental responsibility. • Encourage the development and diffusion of environmentally friendly technologies.	• ISO 14001 environmental standard. • Extension of the carbon footprint programme. • Ico-management of the corporate fleet and instruction in eco-driving techniques. • Tests of low-carbon vehicles and a commitment to support their wider use. • Energy efficiency label awarded by SERCE. • Energy audits. • A virtual library and printing on request of corporate publications.
ANTI-CORRUPTION	
• Businesses are encouraged to combat all forms of corruption, including extortion and bribery.	• Handbook on ethical business practices. • Participation in a leaflet on corruption prepared by the French Employers Association (MEDEF). • Strengthening of the services agreement procedure.

More information on the Global Compact

INTEGRATED INTO FUTURE PROJECTS

A key player in regional development, SPIE works with local and regional authorities, companies, and local organisations on an array of initiatives, ranging from actions involving economic excellence centres to youth support programmes. In France, we support the annual Creativ'Est contest that awards prizes for innovative projects and Lille's "second-chance" school to help unemployed drop-outs find stable jobs and return to mainstream society.

Other projects are designed to improve practices at national or European level by more fully integrating the economic and social challenges of sustainable development. We support several organisations involved in social responsibility initiatives, among them Vigeo, the socially responsible rating agency, and ANVIE, a French association that encourages companies to view social sciences as a strategic resource.

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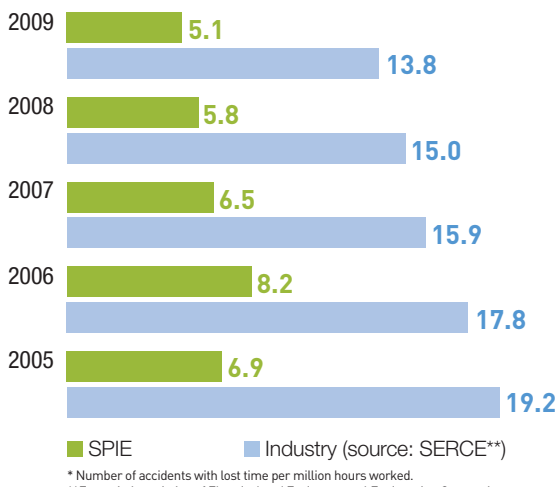
LOST-TIME INJURY RATE*



* Number of accidents with lost time per million hours worked.
**France's Association of Electrical and Environmental Engineering Companies.

PROACTIVELY PLANNING FOR THE WORLD OF TOMORROW

With many employment pools hard hit by the recession in 2009, SPIE chose to reaffirm its values of local service, responsibility and performance, motivating team members to find solutions and prepare for the future.

Following a period of intensive hiring at SPIE, the recession affected our workforce in some sectors, such as heavy industry and manufacturing, with the impact varying from one region of Europe to another. In response to this situation, human resources management teams focused on protecting jobs in the most severely threatened regions by developing internal mobility opportunities, creating gateways between businesses and implementing voluntary separation support measures. Close cooperation between and within subsidiaries and with employee representatives made it possible to deal with individual situations case by case and limit the number of dismissals.

At the same time, 2009 was a year of contrasts. Jobs were created in dynamic markets like transportation, energy and health care, as well as in maintenance services. Overall, the year saw a slight contraction in the workforce to 28,468 at 31 December 2009, 3% lower than one year earlier. Nonetheless, 1,500 employees were hired during the year. This figure excludes acquisitions, which added more than 600 people to the workforce, in particular WHS employees in the United Kingdom. The number of temporary employees declined from 15% to 10% of the total.

DEVELOPING TRAINING AND APPRENTICESHIP PROGRAMMES

Despite a reduction in overheads, training expenditure was maintained at 3.5% of payroll, amounting to around €30 million, reflecting the Group's commitment to enhancing employee skills, especially in businesses with strategic importance for the future, such as energy efficiency. Our Technology Institute pursued its training initiatives, with around 15 customised modules, especially in innovation-driven fields like intelligent lighting and radio-relay systems.

Apprenticeship programmes were also maintained. Apprentices accounted for more than 5% of the workforce in France and nearly 6% in fast-growing sectors like nuclear services. This dynamic was supported by the development of tutoring initiatives, which involved not only training and skills transfers but also measures to enhance perception of tutors within the company. Invited by President Sarkozy to a reception at the Elysée Palace along with around 50 other leading French companies, SPIE pledged to pursue its work/study programmes, setting a target of 1,000 additional contracts by year-end 2010.

Sharing expertise through apprenticeships

1 - The work/study programme deployed for many years by SPIE Nederland is intended for both new recruits and more experienced employees. Training sessions are conducted on the work site (80%) and at school (20%). In 2009, 63 employees took part in work/study initiatives in the Netherlands.

2 - On 15 July, President Nicolas Sarkozy hosted a reception for around 50 French CEOs who support apprenticeship policies and some 500 young people enrolled in work/study programmes. Ten young apprentices representing the different SPIE subsidiaries accepted the invitation. They were accompanied by Jean Monville, whose term as SPIE Chairman ended on 31 December 2009.

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SUPPORTING RESPONSIBLE MANAGEMENT

Local management plays an important role in organising skills on work sites, especially in times of crisis when maintaining team alignment and motivation is primordial. In the Île-de-France Nord-Ouest region, a programme on management techniques and competencies was launched. Among the topics covered were delegating authority, listening to team members and rewarding initiative and achievement. The same approach was taken in the Ouest-Centre region, where the programme focused on developing managerial attitudes with the support of front-line contacts. A management training course that pursued similar goals was deployed in Portugal.

In other European countries, the focus was on the changing role of project leaders, who serve as key local players within the organisation. In the Netherlands, for example, an original approach was introduced. Instead of the traditional method of developing a theoretical model of the perfect manager, experienced project leaders with strong results were identified and their practices were analysed with the goal of enhancing organisational efficiency.

Team spirit to overcome the crisis

In response to problems in the industry sector, job protection measures were the priority. At Port de Bouc, near Marseille, SPIE Sud-Est enacted an action plan jointly with employee representatives designed to avoid direct dismissals. The plan included redeployments to other positions through an intra-subsidiary mobility plan, transfers to other subsidiaries in the region like SPIE Nucléaire, and voluntary separation plans. In Dunkirk, where the metallurgy industry was hard hit, SPIE Île-de-France Nord-Ouest was able to reassign employees to other jobs thanks to geographic mobility measures and gateways between businesses. These reassignments were carried out on a case-by-case basis, once each employee's skills and ability to take on new responsibilities had been clearly ascertained.

Ambassador SPIE

SPIE recently expanded its Ambassadors network with schools whose curricula are aligned with the Group's current businesses and its future development paths.

Including both operational and support staff members, the Ambassadors return to their school for forums or specially organised meetings to motivate and attract young talent and build awareness of SPIE, its values and businesses.

More specifically, Ambassadors describe their skills and responsibilities, hold classes, organise worksite tours, present opportunities for advancement within the organisation, and launch or take part in partnerships or special events.

Deployment of the Ambition Manager programme continued in 2009, with an international leadership training module for high-level managers that was dispensed to 15 employees representing seven different nationalities.

IMPROVING EMPLOYEE RELATIONS AND BENEFITS

Significant progress was made during the year in various diversity initiatives:

- Following the drafting of the Diversity Charter in 2008, the first Diversity Committee meetings were held with representatives from the different subsidiaries.
- SPIE Nucléaire received a first award for its work/study policies and programmes for older employees.
- A jobs, skills and diversity agreement was signed with SPIE Sud-Ouest trade union representatives. The agreement covered personnel planning and development, disability hiring measures, gender parity, older employees and telecommuting.
- SPIE Oil & Gas Services extended its human resources management procedures to include all local people working for SPIE.

In the area of employee relations, an agreement was signed on union representation that is aligned with recent French legislation. The purpose is to clarify the procedure for determining which unions will be authorised to negotiate Group-level agreements.

Based on SPIE's prior-year earnings, €19 million was paid in 2009 to employees in France through profit-sharing and incentive bonus programmes. An incentive bonus was also paid to SPIE Nederland employees.

DEPLOYING THE SPIE BRAND

At a time when hiring is down, it's important to keep promoting the company to prepare for the future. That's why the school Ambassadors network was continued. The programme brings together former students and human resources managers. In France, SPIE Communications has forged close ties with the INSA engineering school in Lyon, developing training modules and sponsoring students who may be hired in the future. In the UK, a partnership was created with the Townley Grammar School for Girls in Bexleyheath. The partnership is intended not only to provide internships for possible future job applicants but also to familiarise pupils with the different types of jobs available within our organisation.

Web-based hiring initiatives

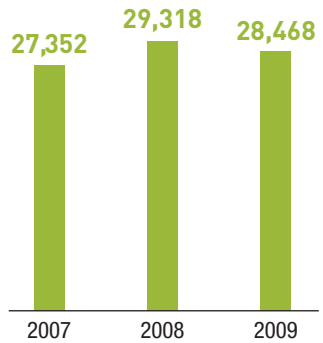
Launched in 2009, our online human resources website – spie-job com – was designed to make the hiring process as efficient as possible through partnerships with specialised employment sites like Keljob and Monster. Depending on their capabilities and interests, site visitors can view job offers from around the world that are updated in real time. The site includes an extensive selection of video testimonials so that they can also learn about each trade in more detail. Fully aligned with our values, the site is handicapped-accessible, in particular for the sight and hearing impaired, and is the first human resources website to be awarded France's official AccessiWeb label.

A Diversity Charter to "Combine our differences"

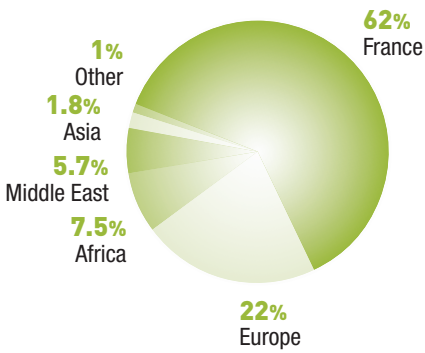
As part of our commitment to responsible management, a Diversity Charter was published in 2008, followed by an array of practical initiatives in 2009. One of them was a film entitled Combine our differences that illustrates our improvement targets in four key areas: gender parity, generational harmony, diversity of origins, and hiring the disabled. In particular, a large number of initiatives to hire and support the disabled were pursued during the year. These included agreements with employee representatives, information guides, hire-the-handicapped forums and the "SPIE, Handi'engagée" (SPIE, Handi-commited) communication campaign. All of these initiatives were closely monitored by the Diversity Committee.

SPIE
diversity charter

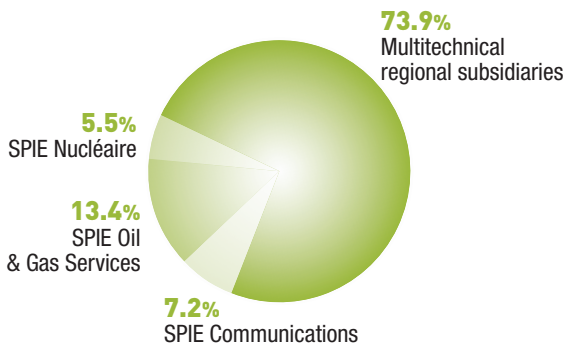
Total employees at year-end



Employees by country



Employees by business



ACCESSIBLE, ENVIRONMENTALLY FRIENDLY INFORMATION

In an information society concerned about the challenges of sustainable development, corporate communication has a special responsibility. It must ensure environmentally friendly editorial policies while facilitating communication with a full range of stakeholders, including the disabled.

Publishing brochures, reports, guides and other corporate documents and organising seminars, conferences, trade shows and other events have an impact on the environment. These activities consume energy, paper, packaging and other natural resources, use inks, solvents and other hazardous products, and produce waste and transport-related pollution. Despite the improvements in "green" printing technologies and environmentally friendly forest management practices, reducing greenhouse gases remains a major challenge for corporate publication teams. SPIE has chosen to meet that challenge through its e-communication policies.

CHANGING CORPORATE PUBLICATION PRACTICES

SPIE was the first company to publish a "responsible annual report," which recently received the Grand Prize from the French Association for Corporate Journalists and Company Publications (UJJEF). For several years, we have been committed to reducing the impact of our publications through innovative communication tools and techniques. In 2009, this environmentally friendly approach was extended to cover all corporate and marketing documents. It includes an online print-on-demand service that can meet requests for corporate documents within 48 hours. The complete POD process, involving high-definition digital printing on 100% recycled paper, complies with all environment-related standards currently applicable to the printing industry and reduces consumption of paper, energy and chemicals to a strict minimum.

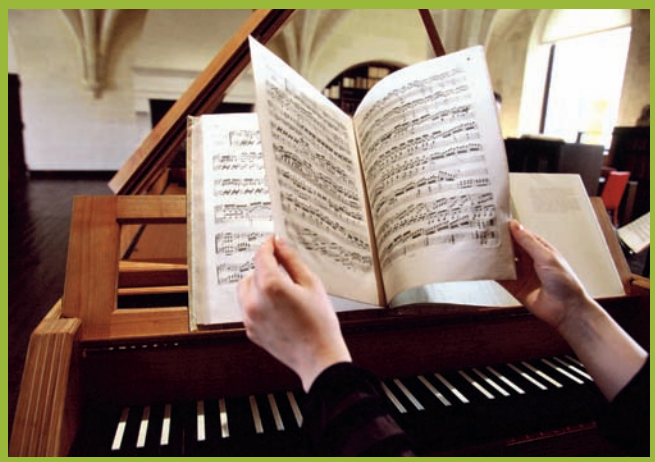
Digital accessibility is another key area of responsible communication. A number of innovations have made it easier for the sight-impaired to access our corporate documents. These include full speech-synthesis versions of e-hyperdocuments – an electronic format with enhanced content – that are available in both French and English and stored in the SPIE virtual library. Alongside Atalan, a company committed to making the Internet more disability-friendly, SPIE is a founding partner in the AcceDe project, which has two purposes: to create and freely distribute practical information to companies that want to make PDF documents handicap accessible while also raising awareness of these issues among communication professionals.

Supporting the spread of culture and the arts

For ten years, SPIE has supported the Royaumont Foundation in carrying out its outstanding artistic projects. The recently opened François Lang music library provides artists and musicologists with a work environment that is unique in Europe.

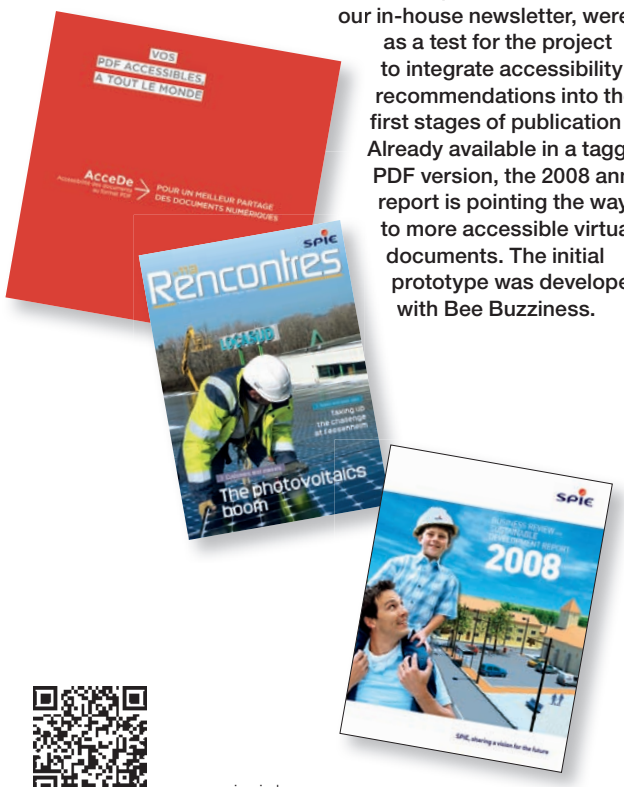
In 2006, we extended our corporate patronage programme with the decision to finance operations of the library that houses the François Lang music collection. Assembled just before the Second World War, this important private music collection comprises nearly 1,300 handwritten and printed documents extending from the 16th to the 20th century. It includes musical manuscripts and letters from Fauré, Debussy, Berlioz, Weber and Liszt, an annotated score of *Debussy's Pelléas et Melisande*, and original sheet music by major figures of the French Baroque period, like Couperin and Rameau, and the German romantic movement, from Beethoven to Schubert and Schumann.

At the library's inauguration, SPIE successfully tested an application developed for its virtual library that enables the public to sample online musical works whose scores are kept in the Royaumont Foundation collection. On the screen, users can turn the pages of the scores, which are synchronised with one or more recordings of the work and enhanced with informative multimedia content.



SPIE, a founding partner of the AcceDe project and a pioneer in accessible virtual documents

Today, it's possible to "tag" documents in PDF format to make them more widely accessible. Screen readers used by the blind and sight-impaired include functions for reading and searching tagged PDF files. However, the technique of tagging is not widely known and quality information explaining how to tag files is inexistent. Launched in 2009 by Atalan, the AcceDe project is designed to provide tagging instructions and raise awareness of document-accessibility issues among communication professionals. The project represents a new phase in our strategy of communicating more effectively with all stakeholders by always providing them with enhanced user value. The 2009 annual report and *Rencontres*, our in-house newsletter, were used as a test for the project to integrate accessibility recommendations into the very first stages of publication design. Already available in a tagged PDF version, the 2008 annual report is pointing the way to more accessible virtual documents. The initial prototype was developed with Bee Buzziness.



With the support of Atalan, access to the corporate intranet and SPIE websites has also been improved. The new human resources website was awarded an AccessiWeb silver label by the BrailleNet association.

SPIE awarded the AccessiWeb silver label

SPIE was awarded the AccessiWeb silver label for its spie-job.com website, the first human resources site posting online job vacancies to receive this recognition. A measure of site accessibility for disabled Web users, the label is fully in line with our digital access initiatives.

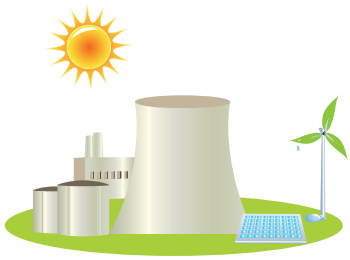
www.spie-job.com

OUR BUSINESSES, DELIVERING LASTING SOLUTIONS

Every day, tens of thousands of customers throughout Europe and around the world put their trust in SPIE to support them closely in their projects, providing solutions that are technically efficient, cost effective and socially responsible.

34 LOCAL AND REGIONAL AUTHORITIES

Support for "green" policies, improvements in the urban living environment, and sustainable regional development solutions.

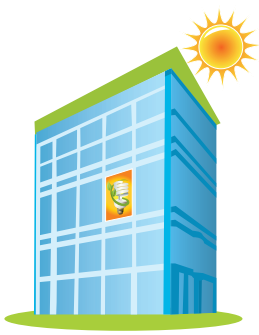


40 ENERGY

Urban eco-mobility solutions, innovative services for energy system operators, sustainable management of transport and telecommunications infrastructure.

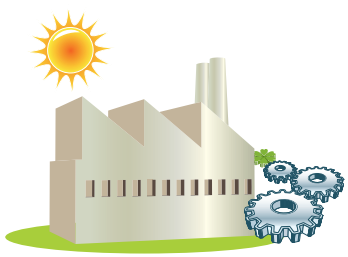
48 INFRASTRUCTURE

Project support for infrastructure operators, safety and security installations, environmental stewardship.



54 COMMERCIAL SECTOR

Development of buildings and their operations, eco-management of property assets, high value-added services.



60 INDUSTRY

Utilities and process management, energy use monitoring, environmental initiatives.

LOCAL AND REGIONAL AUTHORITIES,
INNOVATING FOR COMMUNITIES

Find our services for local and regional authorities on **www.myspie.eu** and on facebook. MySPIE.

TOTAL

€559 M

SPIE and
local authorities

Urban development ◗ Treatment plants ◗ WiFi terminals ◗ Urban video surveillance ◗ Public lighting ◗ Urban transportation ◗ Traffic lights ◗ Luminance measurement ◗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1 - Real-time user information for bus and tramway arrival, departure and waiting times in Lijn, Belgium. Information is also relayed via an audio system and a Braille button for the sight-impaired. 2 - Support for the Pays de la Loire Regional Council in its ambitious project to equip secondary schools with computers and develop IT use in teaching. 3 - Christmas lighting in Toulouse using LED lamps that reduce energy use by 40%. 4 - Video surveillance system in the Geneva Cathedral for the Swiss Federal Council. 5 - Electrical power supply and supervision of a residual water treatment plant in Portugal's Algarve region. 6 - According to a 2009 Arcet Notation®* study, the Sénart intercommunity council near Paris considerably improved its sustainable development performance, thanks in part to a public-private partnership with SPIE for municipal lighting systems.

With the development of **eco-labels**, responsible purchasing policies, carbon footprint analyses and insertion programmes for the underprivileged, local and regional authorities are more committed than ever to enacting economic and social programmes aligned with the principles of **sustainable development**. Moreover, they are also deeply involved in inventing a new urban and regional **living environment**, with the support of all key stakeholders.

*A public sector social and environmental ratings agency

SHARING A VISION FOR THE SUSTAINABLE CITY

Managing today's cities means reconciling a range of economic, technical, social and environmental issues. Working with public officials, SPIE is helping to create a new vision of urban and regional development based on existing solutions already deployed in urban areas throughout Europe.

OUR OBJECTIVES

PROMOTE ENVIRONMENTALLY RESPONSIBLE POLICIES
IMPROVE THE QUALITY OF CITY LIFE
SUPPORT SUSTAINABLE REGIONAL DEVELOPMENT

While the recession and budget restrictions continued to weigh on local and regional tax revenue in 2009, the year was also shaped by the adoption of the EU's Energy and Climate Package and more environmentally responsible policies in all areas of urban management. In response to this dual challenge, the priority was given to energy and environmental efficiency, a sector that offers substantial economic opportunities especially in the commercial, urban transport and public lighting markets. At the same time, local and regional authorities want to respond more effectively to the challenges of responsible citizenship. These include unified communication solutions that facilitate exchanges, the use of renewable energies in public buildings and initiatives to promote alternative modes of transportation. A committed stakeholder to these changes, SPIE delivers an array of skills, methods and resources backed by a deep-rooted local presence and solid experience in urban planning and regional development.

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COMBATING GLOBAL WARMING

The first French company to receive an energy efficiency label from the National Association of Electrical and Environmental Engineering Companies (SERCE), SPIE devises solutions that combine personalised consulting services, legal, financial and administrative engineering, equipment reconfiguration and the optimisation of energy sources. To more effectively manage energy use in primary and secondary schools, communities are increasingly turning to photovoltaic-generated electricity. In 2009, for example, SPIE covered the roofs of two secondary schools in France's southwestern Charente district with state-of-the-art solar panels. The system will


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1 - In Lyon, multitechnical maintenance services are provided for 600 public buildings, including municipal government facilities as well as historic structures like the Opera House and the Fine Arts Museum.

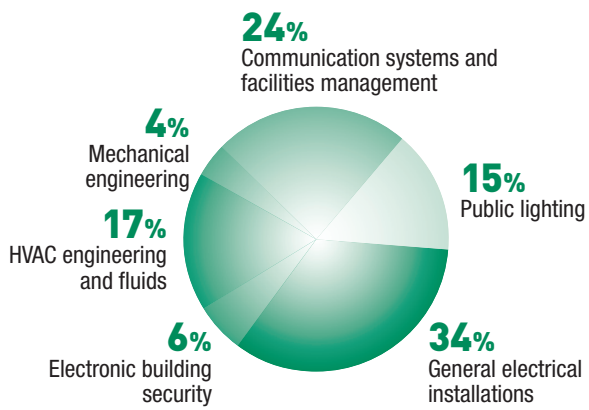
2 - Electrical, mechanical, sanitary and specialty installations for the Liverpool National Museum. Our environmental friendly systems deploy sustainable technical solutions, including building energy and metre management, thermal imaging and co-generation facilities.

3 - The city of Angers opted for an intelligent system to manage its car park facilities. The solution centralises data and controls needed to manage and supervise all of the installations. These include video surveillance and digital recording systems, intercoms, car park pay terminals and space counters, fire detectors, elevator alarms, ventilation controls and energy management systems. Real-time indicators help to optimise the deployment of resources for maintenance and system operations.

generate 300,000 kWh of electrical power a year while reducing carbon emissions by 450 tonnes. Tailored to meet sustainable development criteria, these solutions are supported by a comprehensive energy and environmental performance management system. The system involves classifying sites by type and by energy performance (as measured in kWh per square metre), determining energy savings objectives, recommending capital projects and calculating return on investment timeframes, and defining the number of energy savings certificates that will be delivered. Every aspect is rigorously analysed with the goal of signing an energy performance contract that includes a long-term commitment to reducing energy use and CO_2 emissions.

Total Local and Regional Authorities: €559M

Breakdown by segment



A variable-intensity lighting system aligned with traffic flows
In France, the Île de Ré bridge has been equipped with three kilometres of self-cleaning light fixtures and a system that modulates light intensity depending on traffic flows. This SPIE solution has cut power use by half (or 103,000 kWh, thereby reducing carbon emissions by 11.24 tonnes a year) while improving user satisfaction, as lighting conditions are regularly adapted to driver needs. Moreover, light intensity can be adjusted remotely in the event of an accident.

CITIES WHERE LIVING IS GOOD AND TRAVEL IS EASY

Whether renovating neighbourhoods, enhancing the value of property assets or burying power lines, SPIE deploys an integrated approach to urban development projects that comprises a range of technical, human and environmental factors. In the area of transportation, our solutions are designed to speed the movement of buses and tramways through traffic light management systems while also improving traveller service. In Lijn, Belgium, for example, residents can monitor public transport traffic conditions in real time, consult weather forecasts and take advantage of other innovative services including audio and Braille information systems for the sight-impaired. SPIE has also developed innovative video protection solutions designed to make cities safer and urban lighting systems that showcase public places. We also enhance the quality of city life by deploying IT solutions that make it easier for people to interact and communicate. From WiFi terminals in public places to broadband networks that facilitate telecommuting and electronic exchanges, SPIE is helping to reduce the need for urban travel and promoting an interactive city environment. In northern France, municipal authorities in Roubaix renovated the city's communications infrastructure in 2009 to improve relations with constituents. Based on the principle of unified communications, this type of cost-effective, high-return project has proven very popular in today's cities as it promotes the development of new ways of working and communicating.

An operational approach to change the quality of urban life

From the UN's Agenda 21 programme to regional climate plans, environmental quality measures and carbon balance analyses, the sustainable development criteria integrated into local and regional government policies are often difficult to put into action. To support these policies, we provide a comprehensive approach covering all aspects of a programme, whether technical, administrative, financial or legal. Backed by extensive references from across Europe, SPIE ensures the alignment and efficiency of action plans over the long term by leveraging a broad range of skills in renovating neighbourhoods, developing public buildings, improving transport systems, managing environmental infrastructure and enhancing urban safety.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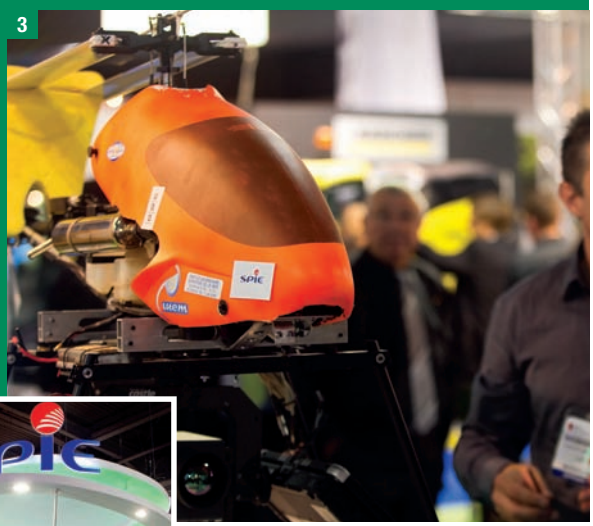
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1 - As part of its commitment to reducing energy use, the town of Ay-sur-Moselle contracted with SPIE to deploy the City Networks solution, which allows remote management and measurement of streetlamps and lighting control panels.

2 - The Nord-Pas de Calais Regional Council enlisted our support to optimise energy use in some 200 secondary schools. Co-contracting with Vizelia, SPIE was in charge of installing and commissioning equipment that enables real-time tracking of water, gas and electricity consumption. Using metres and remote collection systems, the software developed by Vizelia gathered data that is sent via the Internet to a secure platform. The goal is to identify possible malfunctions in order to more effectively control energy bills.

3 - SPIE's stand at the 2009 Exhibition for Mayors and Local Authorities, held in Paris at the Porte de Versailles on 17-19 November.

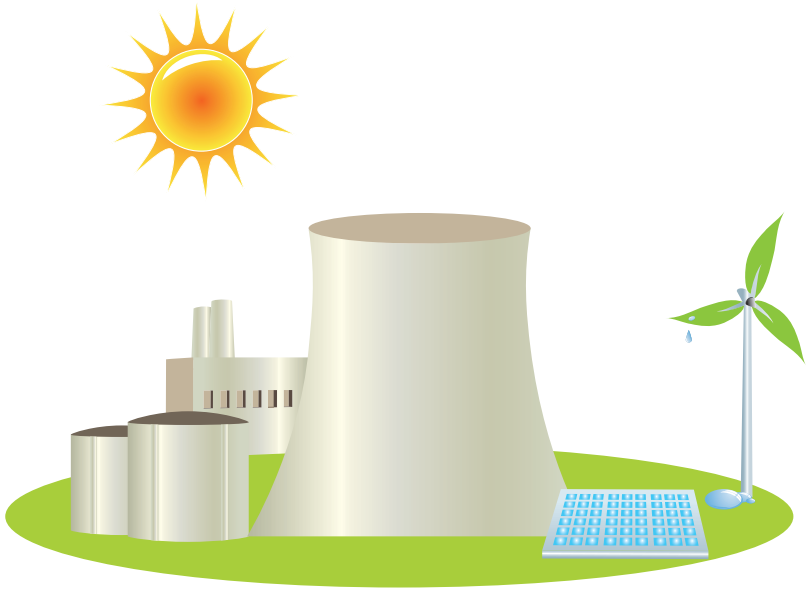
MANAGING URBAN AND NEAR-URBAN INFRASTRUCTURE

Optimising the management of public lighting systems is a good way to reduce both energy budgets and pollution. In eastern France, the town of Ay-sur-Moselle chose our City Networks solution. The system varies light intensity depending on the period and season and provides permanent Internet access to data so that savings can be monitored and incidents or breakdowns verified. As a result, this community of 1,550 people has already reduced its energy use by 30% to 35%.

Efforts to preserve the natural surroundings are supported by technical infrastructure designed to protect the environment. These include water treatment and incineration plants, a field in which SPIE has recognised expertise throughout Europe. In Portugal, for example, a major waste-water treatment project has been launched in Algarve, one of the countries leading tourist regions. The project involves the construction of a treatment plant that complies with the latest environmental standards.

SPIE at the Mayors Exhibition in Paris

Nearly 900 people visited SPIE's stand at the 2009 Exhibition for Mayors and Local Authorities in Paris. This year's event was dedicated mainly to energy efficiency, renewable energies and sustainable urban development. Two innovations were presented: Luxitronic, an onboard vehicle system for measuring light intensity in a given community, and the Thermobât drone, which takes infrared aerial photos of buildings for thermographic analysis. A lottery was held to select three communities to receive free energy audits that use these innovations.



ENERGY, RESPONSIBILITY TOWARDS OUR PLANET

Find our energy services on **www.myspie.eu** eu and on facebook MySPIE.

TOTAL

€894M

SPIE and energy

Oil & gas • Nuclear • Renewable energies •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2


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1 - Commissioning of a gas field and treatment plant in Sichuan Province, China for Sinopec. 2 - Training in mechanical maintenance techniques for local workers in Angola. 3 - Electrical and instrumentation upgrades related to the third ten-year inspections of 900 MW nuclear power plants, a total of 28 reactors, for Areva NP. 4 - Design, equipment supply, assembly and commissioning of access control and site protection installations for the Flamanville 3 European Pressurised Reactor (EPR). 5 - In Rotterdam, outfitting of a biomass energy plant that uses wood residue collected from businesses and households. The project involved the installation of equipment, piping, instruments and HVAC engineering systems. 6 - Installation of a photovoltaic power plant on the roofs of three buildings at the Moulins de Kérollet farm cooperative in Arzal, Brittany. The system can produce 272,000 KWh of electrical power and reduce carbon emissions by 460 tonnes over a 20-year period.

In response to the challenges of **climate change** and resource depletion, direct action needs to be taken to protect **our fragile planet**. Solutions already exist and will be deployed with the support of all **energy** stakeholders. The goal is ambitious – to reduce carbon emissions to one-quarter of current levels by 2050.

MORE EFFECTIVELY MANAGING OUR NATURAL RESOURCES

From exploration projects to oil field operations, SPIE is active around the world, responding to the technical, financial and environmental challenges that face oil and gas industry operators with services covering every phase of their investment's life cycle.

OUR OBJECTIVES

SUPPORT OPERATORS' PROJECTS
ENSURE INTEGRATED FACILITIES MANAGEMENT
MANAGE ENVIRONMENTAL RISK

Despite a temporary slowdown in growth in 2009, when oil prices averaged $50 a barrel, energy demand is expected to recover quickly, requiring production capacity increases in the coming years. This situation is favourable to SPIE's development in fast-growing markets. In response, we've expanded our operations around the world, especially in the Middle East where offices were opened in Saudi Arabia, Kuwait and Libya.

DELIVERING THE BEST SERVICE

Working with operators, engineers and contractors, SPIE continued to develop its services for exploring and studying new fields, building and operating installations, and optimising production processes while complying with safety, cost, quality and project delivery objectives. This mission is backed not only by a broad range of skills but also by an ability to rapidly deploy the necessary resources and competencies for any type of project. In 2009, as part of the broad-based Angola LNG project, our teams leveraged their capabilities in electrical power, instrumentation and telecommunications to help Exxon, the operator, upgrade its gas pumping and treatment system. The project was especially complex since offshore work had to be carried out in simultaneous operations (SIMOPS) mode, which required meticulous, precise planning to limit risks and minimise downtime.

More broadly, SPIE continued to specialise its services. In Kuwait, for example, SPIE GULF was created to manufacture and repair tubular equipment and accessories for oil wells, drill rods and crossovers. The company operates a 1,000-sq.m machine shop that is equipped with the latest lathes and other tools.

MANAGING ENVIRONMENTAL RISK

Aware of the impact of its operations on the natural surroundings, the oil and gas industry is seeking to more fully integrate situational assess-


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1 - Design, supply, installation, and commissioning of remote surveillance, anti-intrusion and access control systems on the Djebel Bissa/Hassi R'Mel, In Salah and Sbaa sites in Algeria, for Sonatrach.

2 - Clean-up of a Total Gabon oil facility. Petroleum waste was burned in an incinerator equipped with filters for processing flue gas, in compliance with existing European regulatory standards.

3 - Contract with Total E&P to operate oil and gas production facilities in southern France's Pyrenees region. The site's three fields – Vic Bilh, Pechorade and Lagrave – produce 1,500 barrels of oil equivalent per day while complying with the EU's Seveso II Directive.


3

ment and environmental impact criteria for every stage of the project lifecycle. In this area, our teams provide cutting-edge expertise that complies with ISO 14001, QHSE and other benchmark international standards. Our solutions range from reducing gas flaring to enhancing the energy efficiency of buildings and installations by limiting compressed air leaks and shortening utility operating time. We're also involved in innovative projects in such areas as geological carbon and storage. To protect oil equipment and installations, our solutions – which range from fire protection systems to production area safety services – are adapted to the specific needs of each site. In Algeria, SPIE was the first company to be awarded a contract for site security and systems integration from Sonatrach Amont. The contract covers the design, supply, installation and commissioning of remote surveillance, anti-intrusion and access control systems.

HIGH LEVEL TRAINING

All services comply strictly with procedures and make safety the top priority. Recognised during the year when the Brunei Ministry of Energy celebrated ten years of accident-free operations at the Lumut gas processing plant on the island of Borneo, this commitment is supported by well-established expertise in employee training. In 2009, a Total subsidiary contracted with SPIE to improve operator training and skills validation procedures on three sites. The year-long mission was assigned to around a dozen specialists who audited and analysed practices, prepared job-specific training documents, updated skills enhancement programmes and curricula, and formalised start-up and shutdown procedures.

Supporting the oil and gas industry

SPIE's oil and gas business meets the needs of a diversified global portfolio of customers, including oil industry "majors" and national oil companies as well as engineering, procurement and construction contractors. These operations are led by SPIE Oil & Gas Services, which employs 4,000 people in 23 countries in five core businesses: well services, systems integration, expertise and project support, recruitment and training, and operational support. As part of its long-standing commitment to the principles of sustainable development, SPIE has signed national framework agreements to train local operators and technicians.

DEVELOPING LOW-CARBON ENERGY SOURCES

Nuclear energy represents a proven alternative to fossil fuels that helps to reduce the impact of global warming. Alongside operators, SPIE supports the sector's development by providing advanced solutions at every stage of the fuel cycle.

P. 68

OUR OBJECTIVES

SUPPORT PROJECT RELAUNCHES
ENSURE INSTALLATION SAFETY
MANAGE ENVIRONMENTAL IMPACT

2009 was shaped by ongoing project relaunches in France and opportunities created by EDF's entry into the UK market following the acquisition of British Energy and its eight nuclear power stations. A new structure is being created with SPIE Matthew Hall to support future large-scale projects in the country. Development continued elsewhere in Europe as well. From mechanical engineering service provision in Spain to valve maintenance at the Sizewell plant in the United Kingdom and programmes to extend the useful life of reactors in Belgium, these current and future projects fully reflect SPIE's growth dynamic.

MEETING OPERATOR CHALLENGES

With nuclear reactor construction projects once again on the rise in several European countries, operators are looking for a development partner that will enable them to focus on their core business. SPIE is rising to this challenge by focusing increasingly on engineering services, in particular for European Pressurised Reactor (EPR) projects. Thanks to their understanding of the nuclear process environment, our teams can provide a range of services, from piping, HVAC and electrical engineering studies to worksite supervision and electrical installations. At the Flamanville 3 European Pressurised Reactor, SPIE was in charge of designing, supplying parts, assembling and commissioning all access control and site protection installations.

Enabling aging nuclear facilities to remain in operation longer is another challenge. SPIE teams are involved every day in various operations, from keeping installations in good working order to analysing feedback. In its project to support EDF and the power utility's Fessenheim nuclear power plant in Alsace, SPIE was awarded high marks by a group of around 15 experts from around the world who conducted a three-week benchmark study of the facility's organisation and practices.

MANAGING ENVIRONMENTAL IMPACT

Operating across the entire fuel cycle, from production to waste storage, SPIE has a key role


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1 - Renovation of the auxiliary steam production system at the Gravelines electrical power plant. The system ensures that installations can be restarted in the event of simultaneous unit shutdowns.

2 - Worksite organisation and installation cleaning as part of a comprehensive services contract for the Fessenheim power plant. The contract was largely responsible for the positive report filed by the Operational Safety Review Team following an audit of the site organised by the International Atomic Energy Agency.

3 - Preventive and corrective maintenance of electromechanical and hydraulic equipment, maintenance of electrical installations, measurements and regulation for the Phénix reactor, and preventive and corrective maintenance of safety and physical protection equipment at the Atomic and Alternative Energies Commission centre in Marcoule.


3

4 - Integrated maintenance of high voltage installations and overall process management at the Georges Besse II facility.


4

to play in protecting the environment. Our energy efficiency solutions are deployed in plant lighting systems, as well as in installation maintenance services for power distribution, instrumentation and industrial control systems, measurements, adjustment control and power electronics. Our teams are also actively involved in plant dismantling projects where they deploy innovative environmental protection procedures. The methods used can, for example, reduce waste volumes, while waste characterisation studies are also carried out to help define the most appropriate storage solution. More generally, dismantling projects call for meticulous preparation that requires a full understanding of environmental impacts. For the Chinon A3 nuclear reactor, for example, SPIE was chosen to build preliminary ventilation and control installations before dismantling of the heat exchangers began.

ENSURING SITE SAFETY

From installation safety to operational management in a hostile environment and employee protection programmes, SPIE is committed to providing maximum safety at all times. Areva NP awarded SPIE a ten-year contract to carry out electrical upgrades of its 900 MW nuclear power plants, a total of 28 reactors, mainly to improve control system reliability. In 2009, a five-year maintenance contract for safety and physical protection services was signed with the Atomic and Alternative Energies Commission centre in Marcoule. The agreement calls for an array of solutions ranging from fire detectors to anti-intrusion systems.

Carbon audits to preserve the environment

Based on 41 individual audits, SPIE Nucléaire's total carbon emissions were calculated at 20,115 tonnes. This audit has made it easier to understand SPIE's aggregate greenhouse gas emissions and its across-the-board efforts to reduce those emissions through changes in equipment, organisations and actions. The goal is to integrate these concerns into solutions that enable customers to produce energy that is both safe and environmentally friendly. In the UK, for example, SPIE helped to build an innovative electrical power plant with EDF during the year. The plant is designed to reduce carbon emissions by half and nitrous oxide emissions by two-thirds while totally eliminating sulphur oxide emissions.

INCREASING NEW ENERGIES' SHARE OF THE MIX

According to the European Union, renewable energy sources are expected to account for 20% of the total energy mix by 2020. To meet this goal, our teams are working with public and private sector partners, providing a full range of solutions – from financing and investment counselling to optimised installation maintenance services.

OUR OBJECTIVES

DELIVER THE BEST EXPERTISE
DEVELOP CUSTOMISED SOLUTIONS
PROVIDE LEGAL AND FINANCIAL SOLUTIONS

P. 68

In an environment shaped by global warming and energy resource depletion, the growing use of renewable energies reflects a major change in the primary energy production process. In France, the Grenelle environment conference called for a shift towards a totally carbon-free model in which each home, each business and each community will be able to produce its own energy. Involving more than just technical issues, this viewpoint means rethinking today's buildings and installations by deploying a combination of renewable energy sources, energy and environmental performance programmes, and legal and financial assistance solutions.

P. 70

EXPERTISE IN SOLAR PHOTOVOLTAIC SYSTEMS

A driving force behind the global photovoltaic energy market for the past two years, the European Union currently accounts for nearly 80% of total installed solar power, most of it in Spain and Germany. In France, installed capacity more than doubled in one year, from 105 MW to 250 MW. Through its local European network, SPIE is supporting the market's development, providing customised solutions for every type of configuration – from measuring instruments and apparatus to financing studies. Because each building is different, this approach must be highly innovative. For Belgian wood importer Van Hoorebeke Timber, SPIE installed 36,000 sq.m of photovoltaic panels on a roof capable of supporting only 100 kg per sq.m. The solution called for a special structure to evenly distribute the weight of the panels. Our teams are also helping to develop new-generation photovoltaic power plants, such as Les Mées 1 in France's southern Alps, the largest solar energy plant currently being built in the country.

SUPPORTING GROWTH IN RENEWABLE ENERGIES

For years we have been actively involved in the development of most renewable energy sources, including wind and hydraulic power, biomass, biofuels and photovoltaic solar energy. Having installed turbines that generate around one-quarter of the wind energy produced in France, SPIE is a leader in this sector, helping investors get their


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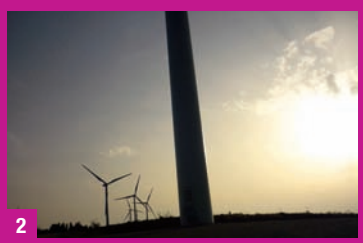
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1 - Installation of the entire electrical power network at Les Mées, France's largest solar power plant.

2 - Construction of the Arfons wind farm, whose eleven 2,000 kW turbines generate total output of 22 MW. This represents 58 million kWh of electricity a year, enough to meet the needs (excluding heating) of 20,000 homes.

3 - Upgrades of sewer and drainage systems for hydroelectric power stations at the Belver dam in Portugal.

projects off the ground with services that range from administrative and environmental constraint studies to energy potential estimates. During the year, SPIE joined a major European project to develop an offshore wind farm in the North Sea by 2015. In the field of hydroelectric power, a green energy that accounts for nearly 15% of installed power in Europe, our teams provide a full range of dam and power plant construction and renovation services, extending from preliminary studies to equipment installation and remote management. During the year, France's EDF utility contracted with SPIE to renovate 250 large hydroelectric plants and around 100 mini- and micro-power stations by 2020. In the area of biofuels, our teams were involved in building Europe's largest diester production facility.

PROVIDING END-TO-END SUPPORT

We deliver comprehensive project management services comprising feasibility studies, financial and contractual solutions, consulting services, negotiations with market operators, administrative requests and authorisations, and integrated facilities maintenance services aligned with the highest quality standards. What's more, thanks to our local network, these solutions can be adapted to local or industry specificities. The SPIELUM modular offering was designed so that services could be tailored as closely as possible to customer needs. In solar energy, SPIE can install photovoltaic power plants adapted to farm buildings and their operations. Similarly, special solutions for industry customers have been developed using photovoltaic steel panels that fit perfectly and guarantee a watertight seal, on both flat and sloped roof buildings. This customised approach chooses and integrates proven technologies for roofing, shade screens, glass roofs and walls, facades, terraces, photovoltaic membranes and other equipment.

SPIE and renewable energies

Historically a contractor and installer in hydraulic dam and power plant construction and renovation projects, SPIE has been focused on new energy solutions since 1996. Now a leader in wind power, with such important references as the Donzère wind farm in France's Rhône valley, the Group has gradually extended its expertise to cover all renewable energy sources, including biofuels, solar power and biogas. Through its local European network, SPIE is involved in major green economy projects, such as the construction of the Les Mées photovoltaic power station in France's southern Alps and the installation of new-generation biomass plants in the Netherlands.

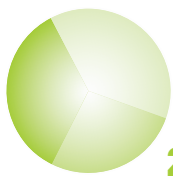
INFRASTRUCTURE, IMPROVING OUR LIVING ENVIRONMENT

Find our infrastructure services on **www.myspie.eu** and on facebook MySPIE.

TOTAL

€521 M

BREAKDOWN BY SEGMENT



38% Energy distribution systems

35% Telecommunications

27% Transport

Transport Energy distribution systems Telecommunications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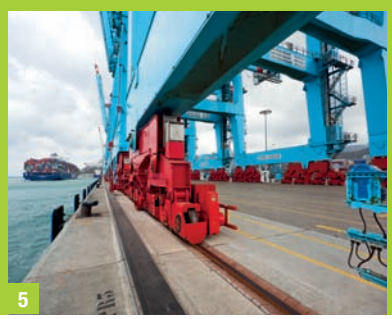
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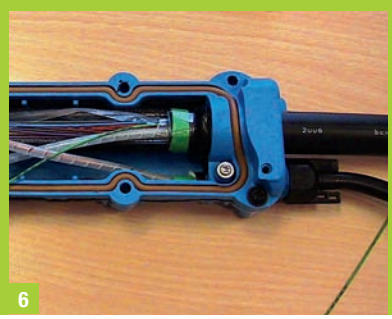
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1 - System for regulating road traffic in the Port of Le Havre, in particular to facilitate the movement of trucks in this important shipping hub. 2 - Design, supply and installation of solar and wind-powered video systems to regulate traffic and secure the Autoroutes Paris-Rhin-Rhône motorway network. 3 - Support for rural electrification projects to extend, reinforce, renovate and bury power line networks. 4 - Burying and reinforcing high-voltage lines for the French electricity distribution network (ERDF). 5 - Instrumentation and electrical installations for the Tanger Med oil port. 6 - Installation of a Fibre-to-the-Home (FTTH) network in the Leipzig region for German telecom operator HL Komm.

The shift to **sustainable energy infrastructure** as well as to **energy-efficient** and **low-carbon** mobility solutions, represents a complete break with society's usual **ultra-energy-intensive** modes of trade and travel. It's critically important to offer an alternative to this energy-guzzling model that uses infrastructure more efficiently in order to reduce carbon emissions.

ACTIVELY SUPPORTING SUSTAINABLE MOBILITY

Intelligent infrastructure is increasingly in demand as a means of improving the quality of travel and transport while also reducing their environmental impact. Through its involvement in sustainable mobility pilot projects, SPIE provides customers with operational solutions in most segments of the transport industry.

OUR OBJECTIVES

DEVELOP URBAN ECO-MOBILITY SOLUTIONS
MAKE ROAD TRAVEL SAFER AND EASIER
IMPROVE USER SATISFACTION

P. 70

The ratification of the EU's Energy and Climate Package in December 2008 is fully in line with the Factor Four concept, which aims to reduce greenhouse gas emissions to one-quarter of current levels by 2050 and curb urban pollution. Much of the effort deployed to attain this goal will be focused on the transport sector. At SPIE, we're helping to meet these challenges with solutions that seamlessly combine our multitechnical services with expertise in energy efficiency and environmental protection. These solutions involve systems that improve traffic flows, as well as eco-friendly infrastructure, the development of multimodal transport and a commitment to carbon-free vehicles.

URBAN MOBILITY EXPERTISE

Municipal authorities are looking for mobility solutions that not only reduce carbon emissions and promote a shift from private cars to public transport but which also address the problem of urban congestion and enhance the quality of urban transport. SPIE is supporting these transport policies through an integrated approach that takes technological, environmental and social issues into consideration. The City of Paris, for example, has opted for the new SURF3 information system to manage 1,500 intersection traffic light control units. The goal is to improve inner city transport by enabling tramways, buses and bikes to circulate more freely, in line with the Paris Transport Plan. This 15-year project aims to improve the quality of air and public health, make the city more attractive and liveable, and stimulate the urban economy.

Other measures are being implemented to make city travel safer and more enjoyable. In Flanders, for example, SPIE is partnering a project to install 1,000 variable message signs near schools. The Group is also involved in several pilot projects to reduce urban pollution. One is an experimental low-emissions vehicle project in Strasbourg, where SPIE, alongside French power utility EDF and Toyota, has been chosen to evaluate plug-in hybrids and vehicle recharging systems.

P. 71


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1 - Installation of a variable traffic control system on the Saint Nazaire Bridge, to facilitate traffic flows during rush hour while ensuring maximum safety. A dynamic lane assignment system uses button light technology to indicate a directional change, the first time such a solution has been deployed in France.

2 - Operations and traveller information systems for tramway and bus lines in the City of Orléans.


2

IMPROVING MODES OF TRANSPORT

Road transport poses serious problems, not only with regard to pollution and the use of non-renewable resources but also in the areas of public health and safety. At SPIE, our solutions are designed to facilitate the flow of traffic while protecting the environment and making travel safer and more secure. These efforts focus on user behaviour as well as on equipment and installations. In France's longest tunnel, which links the Vosges with Alsace, our teams effectuated some 15,000 connections to a centralised technical management system and interfaced a dozen critical applications, including information and communication networks, surveillance systems, fire detectors and ventilation controls. From waterways to rail/road systems, SPIE helps operators to respond more effectively to an array of improvement challenges. At major international airports, for example, our teams are helping to improve building energy and environmental efficiency, deploy new air traffic control consoles and install runway lights that allow pilots to land in all weather conditions. In 2009, SPIE partnered with Thales on air traffic control systems for the new Abu Dhabi airport. This contract builds on SPIE's long-standing cooperation with the Paris Airport Authority (ADP).

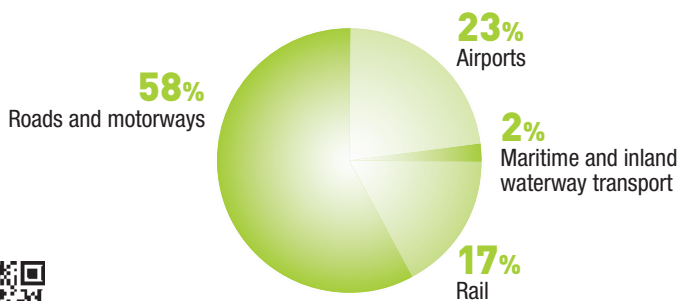
WELCOMING, WELL-MANAGED TRANSPORT FACILITIES

Optimising mass transit stations and terminals requires integrated management of technical installations. In many European cities, SPIE is working to adapt train stations to the needs of users and railway operators. In Barcelona, for example, SPIE provides multitechnical maintenance services for three stations, the largest of which handles some 25 million people a year. One of them – France Station, which dates from the 1929 International Exhibition – houses the control centre for all stations in Spain's Catalonia region. Here, our teams can draw on their extensive skills and capabilities to leverage the full value of this important architectural asset, which still has its original, gigantic glass roof.

Sometimes relieving congestion in public areas necessitates a total reorganisation of their buildings and infrastructure. At Brussels' Schuman Station, for instance, SPIE has joined a major project to create a multimodal transport platform. The new underground complex will comprise three interconnected facilities: the current train station, the metro station and a new regional express train station. The project requires a broad array of skills, from electrical wiring and air-conditioning to the installation of video camera circuits and passenger information systems.

Total Transport : €141 M

Breakdown by segment



SPIE and transport

SUPPORTING CHANGES IN INFORMATION TECHNOLOGY

Telecom operators are helping to reduce carbon emissions in many sectors of the economy. As one of France's leading integrators of telecommunication services and networks, SPIE is supporting this development by pursuing its Green IT commitment.

P. 71

OUR OBJECTIVES

DEVELOP SUPERIOR SERVICES
PURSUE ENVIRONMENTAL POLICIES
SUPPORT NEW DEVELOPMENTS IN TELECOMMUNICATIONS

Despite a slowdown in telecom market expansion in 2009, the year saw the emergence of new growth drivers with the development of the green economy. According to estimates, information and communication technologies could reduce their own greenhouse gas emissions by up to 75%, notably in the transport and building sectors. At the same time, stepping up the deployment of Green IT practices will help to substantially reduce the telecom industry's environmental footprint. SPIE is well positioned to support this change, leveraging a portfolio of skills extending from equipment selection to optimised management of network infrastructure.

COOPERATING WITH TELECOM OPERATORS

With capabilities that range from coverage studies to the installation of radio relay antennas and FTTH networks, SPIE provides telecom operators throughout France with a fully aligned package of solutions comprising technical and administrative consulting services as well as comprehensive facilities management and maintenance. Our teams can integrate telecom and IP systems, deploy and configure customer premises equipment, and design and implement fibre-optic networks. For SFR, the French mobile network operator, we've been involved for several years in developing and installing Nano-BTS stations in office buildings to enhance mobile phone coverage. Deployment requires skills in both mobile phone engineering and IP network interconnection.

FASTER DEPLOYMENT OF LANDLINE AND MOBILE NETWORKS

The development of high speed and very high speed broadband services and mobile networks continued in 2009. In one year, the number of active users of third generation (3G) technology in France rose by 6.1 million, a 64.8% increase, with more than one-third of the total 20.8 million users opting for multimedia mobile services. In this market, our teams helped to increase commutation and transmission capacity while ensuring integrated management of completed works. A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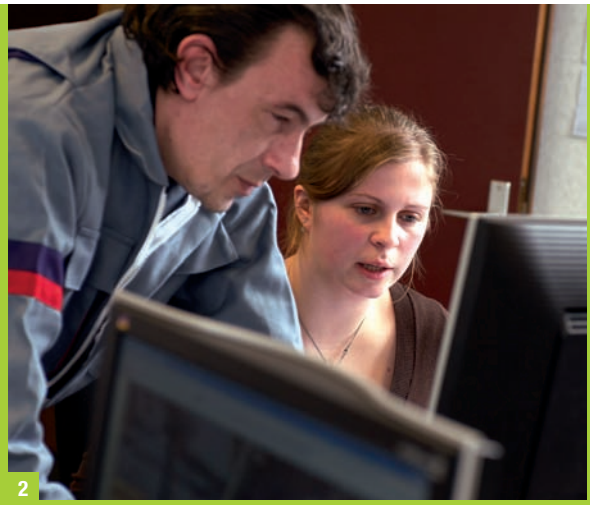
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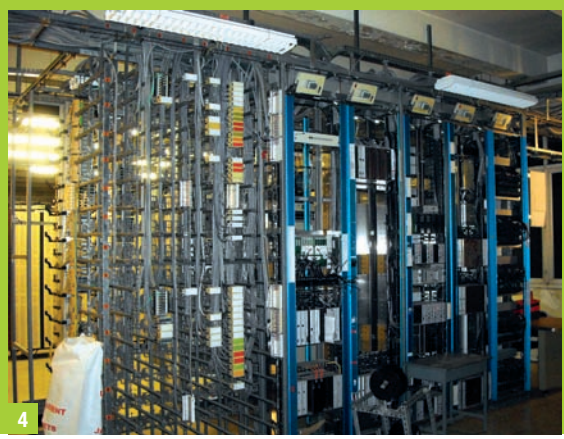
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1 - Multitechnical maintenance services for 3,700 small France Telecom landline network sites and 6,700 Orange mobile network sites.

2 - Contract to deploy an FTTH network for Free, the French ISP.

3 - Maintenance of large sites and NetCenters, representing a total surface of 60,000 sq.m in 33 locations, for SFR.

4 - Renewal of a contract to install and commission optical and microwave transmission equipment at France Telecom's landline and mobile network sites.

leader in the implementation of UMTS networks, SPIE also provides customers with extensive capabilities in maintenance and technical operating assistance. Around-the-clock alarm monitoring services are deployed for all technical installations on a telecommunications site so that any incident detected can be instantly analysed and an appropriate response can be taken, whether a remote solution or an on-site intervention. A national operator recently contracted with SPIE to provide multitechnical monitoring of its sites throughout France from a dedicated operations centre. If necessary, specialised technical teams are then dispatched to the site.

ACTIVELY SUPPORTING SUSTAINABLE DEVELOPMENT

Although telecoms generate only 0.7% of worldwide carbon emissions, equipment upgrades can substantially improve the industry's environmental performance. As part of its Green IT approach, SPIE is committed to complying with QSE, ISO 9001, MASE-UIC and ITIL certification requirements and other standards and to enabling the deployment of innovative operational solutions. These include introducing new methods for cooling data centres and using renewable energies. Once they have integrated these capabilities in optimising energy use, telecom operators will go on to play an important future role by helping other economic sectors to reduce their own greenhouse gas emissions. SPIE is already encouraging this approach in many areas through unified communications, paperless technologies, virtual data centres and new modes of telecommuting.

SPIE and telecommunications

SPIE, expertise in green energy distribution

SPIE devises and delivers environmentally friendly solutions in various fields of energy distribution, including public electrical power networks, public lighting and traffic light extension and renovation projects, and gas network development programmes. In the Netherlands, a pioneer in the development of the green economy, SPIE helped to reorganise a high voltage distribution network concentrated in a few large production centres. The goal was to create a more capillary, delocalised network throughout the country, capable of obtaining electricity even from the smallest renewable energy sources, such as wind farms, photovoltaic installations and biomass plants.

COMMERCIAL SECTOR, ECO-INVESTING IN PROPERTY ASSETS

Find our commercial sector services on **www.myspie.eu** and on facebook MySPIE.

TOTAL

€1,080 M

SPIE and
the commercial sector

Technical building facilities ◗ VDI networks ◗ Fire protection ◗ Access control ◗ Video surveillance ◗ Technical building management ◗

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1 - Design and deployment of a project to upgrade voice-data-image networks at the European Parliament in Strasbourg and the European Commission in Luxembourg. 2 - Renovation of power and data wiring at Tour Crystal, a high-rise building in Paris' 15th district. 3 - Electrical and mechanical maintenance services in Barclays Capital offices and data centres in Birmingham and London. 4 - HVAC, electricity, phone and photovoltaic systems for the Eureka office building, located on the Bellaterra campus in Barcelona. 5 - Electrical and environmental engineering and fluids management for the Pierre Oudot Medical Centre in Bourgoin Jallieu in France's Rhônes-Alpes region. 6 - Integrated telecom and interconnection systems in a new training centre for US-based Pride Forasol. Located in Lescar, in France's western Pyrenees region, this more than 15,000-sq.m building is designed to meet the training needs of global oil companies.

The property business is at a turning point as real estate investors and managers are confronted with an array of challenges and opportunities, including **high-energy performance** labels, **sustainable habitat** certificates, low-energy and positive-energy buildings, and preparations for the RT2010 heating regulation standard. These developments require a new approach to property management that combines **architectural**, functional, **technical** and **economic innovations**.

ENHANCING PROPERTY PERFORMANCE

With experience in office buildings, hospitals, public buildings, shopping centres and exhibition facilities, SPIE provides commercial sector decision-makers with solutions that sustainably improve the technical, financial and environment performance of their assets, whether for single-building or multi-site operations.

OUR OBJECTIVES

CAPTURE THE VALUE OF BUILDINGS AND BUILDING OPERATIONS
PROMOTE ECO-FRIENDLY ASSET MANAGEMENT SOLUTIONS
PROVIDE INNOVATIVE SERVICES

In a contrasting European market shaped by a decline in new construction and tighter credit for property investors, SPIE held its own in 2009 thanks to a selective business strategy and good resilience in certain sectors, such as healthcare. Paradoxically, the global recession reinforced demand for sustainable development solutions requiring innovative approaches that increase building value-in-use, limit environmental impacts and ensure cost-effective management over the long term. This trend is expected to continue in 2010, with SPIE positioned increasingly as a designer, installer and integrator of solutions for property managers and investors.

MANAGING ENERGY USE

Commercial buildings account for around 40% of Europe's total energy consumption. In France, the Agency for Environment and Energy Management (ADEME) estimates that the sector represents 46% of all energy supplied to the final consumer and 26% of greenhouse gas emissions. At SPIE, our solutions help to considerably reduce consumption through a combination of approaches. These include energy and environmental efficiency programmes, the use of renewable energies and the trend towards high environmental quality standards. In Meudon, near Paris, SPIE participated in Bouygues Immobilier's Green Office® project to develop a new generation of buildings that produce more energy than they consume. Our teams delivered a range of solutions, including energy production from three biomass cogeneration power plants, the ventilation network and air processing units, and the installation of ceiling coverings with integrated heater tarps. The goal is to reduce carbon

1 - SPIE teams installed photovoltaic cells on the roof of a just-built 7,000-sq.m building at the new Leclerc shopping centre in Cernay, in France's Alsace region. The 1,130 panels cover a total surface of 1,800 sq.m and will produce 230,000 kWh of electrical power.

2 - Installation of an HVAC system for an extension of the Montpellier regional cancer research and treatment centre. The system reduces energy consumption by 50%.

3 - A new visual identity was deployed for 600 former Vediorbis temporary employment agencies in France following their rebranding under the Randstad name. SPIE's turnkey solution involved preliminary studies, surveys, administrative procedures and paperwork, removal of the old logo and installation of the new banner.

emissions by more than 400 tonnes a year. In a recessionary environment, building renovation projects also provide important energy-saving opportunities. Throughout Europe, 2009 saw a growing awareness of the need for improvements in aging complexes with poorly insulated buildings. In Brussels, for example, SPIE undertook a complete renovation of heating, ventilation and air-conditioning installations at the Madou Centre, an office building in the city's historic centre. To reduce energy consumption, SPIE teams installed a high-efficiency condensing boiler. Combined with a fan-type forced draught system, this solution will allow offices to be heated or cooled as required, thereby providing occupants with comfort and well-being.

A PROACTIVE APPROACH, DAY AFTER DAY

Whether renovating an office building or shopping centre, helping to build or extend a healthcare establishment, outfitting a museum or developing an exhibition centre, SPIE is committed to being a source of solutions at every stage of a project. Our teams deploy their extensive skills, experience and expertise to

High-tech services for data centres

Designed to centralise and secure databases, data centres must comply with a wide range of standards. They have to ensure maximum site security, provide redundant hosting as needed, be modular to facilitate possible extensions and optimise energy use. SPIE's upstream solutions help to achieve an optimal balance between energy and environmental efficiency, construction and operating costs, and electrical and HVAC installation design with the goal of ensuring high performance operations throughout the year.

NATO summit in Strasbourg on 3-4 April 2009

Installation of wiring infrastructure, and telephone sets and systems and provision of related services. The project involved more than ten conference rooms, a 700-seat media centre, 150 TV and radio booths, the delegates' pavilion and accessory buildings.

SPIE also installed high value-added surveillance systems for the site and its surroundings.

Improving customer service quality

Customer relationship management is a top priority in the commercial sector. For a consortium that manages the IT resources of seven regional divisions of the Crédit Agricole bank – a total of 25 administrative offices and 1,700 agencies – SPIE developed a communications solution that ensures the convergence of telephone systems with business-specific applications. Thanks to this centralised system, which allows 24,000 subscribers to be connected to the same server, advisors can be reached via a single phone number, a contact person's availability can be ascertained before the call is transferred, and customers can be called directly from a file or the directory.

ensure the highest service quality. For the 2009 renovation of the ING bank headquarters in Brussels, a HVAC system regulatory issue had to be resolved. SPIE set up a full-fledged testing laboratory to accurately assess the expectations of building occupants. Close cooperation with the customer also helped to shorten project completion time and generate considerable savings.

The same approach is taken in other sectors like healthcare, where the well-being of personnel and patients alike is an important quality factor. At the Saint-Nicolas de Port Medical Centre near Nancy, SPIE designed a sophisticated multimedia terminal that improves patient comfort while also providing direct access to computerised medical records. Leveraging a high-speed network, the solution enables patients to have access to television, radio and the Internet to help them overcome the loneliness of a hospital stay. For care providers, the terminal offers direct access to medical records, thereby improving the quality and traceability of treatment and allowing them to communicate more effectively with patients.

A LEADING PROVIDER OF MAINTENANCE AND RELATED SERVICES

The leading provider of maintenance services for bank agency networks in France, SPIE is also the first company to obtain the HQE Exploitation label, in recognition of its ability to ensure environmental high-quality building operations over the long term. This proven maintenance exper-

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1 - Design and implementation of mechanical, electrical and sanitation systems for an extension project at the Forest Bank prison in Manchester that will enable the facility to house nearly 300 additional inmates. The contract involved installation of a new electrical power network, security control systems, intercoms, fire alarms, and heating and ventilation systems, as well as facilities management services.

2 - HVAC installations for the Brussels Casino.

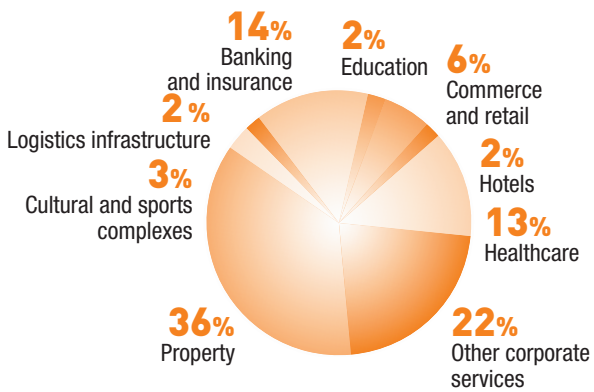
3 - Installation of photovoltaic panels on the facades and roofs of office buildings in Toulouse's Heliopolis complex.

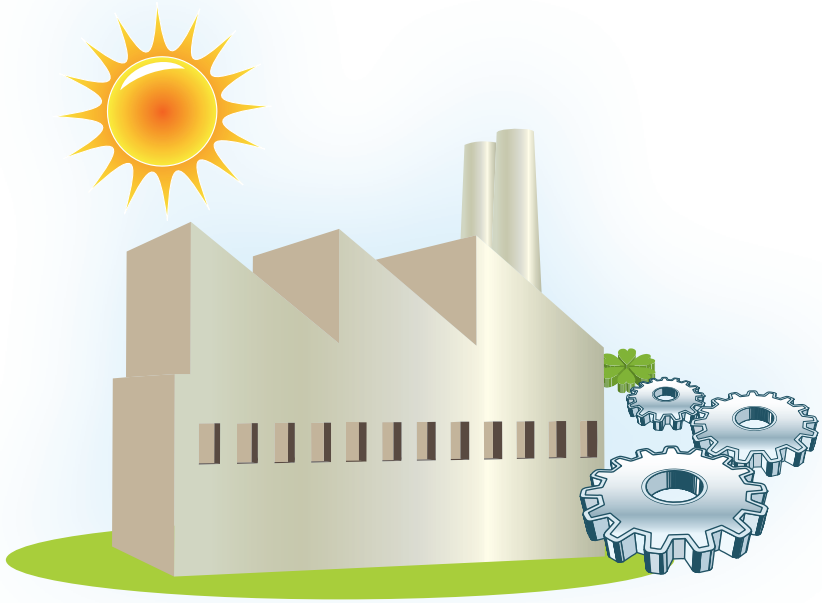
tise enables our teams to provide integrated management solutions for buildings, regardless of their number or complexity. Services range from unified communications to day-to-day management of heating, air-conditioning and lighting installations as well as signage, elevators and building security. BNP Paribas contracted with SPIE for multitechnical maintenance services at the Grands Moulins de Pantin. A 12-member team ensures smooth operations around the clock at this high-profile building complex that dominates the landscape in north-eastern Paris. Services include electrical, heating and plumbing installations, fire protection systems, and automatic doors.

In other regions of France, our teams deliver cutting-edge services to meet local needs, especially in the residential housing sector. In southwestern France, for example, Mesolia Habitat, a rent-controlled housing management company, chose SPIE to build a solar-powered hot water production system under a three-year performance-based contract.

Total Commercial Sector: €1,080M

Breakdown by segment





INDUSTRY, THE GREEN REVOLUTION IN INDUSTRIAL PROCESSES

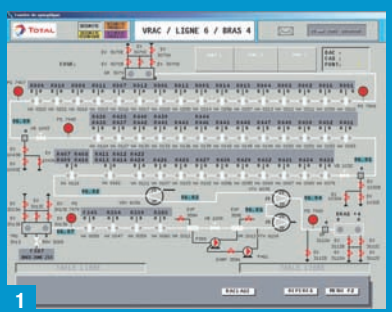
Find our industry services on **www.myspie.eu** and on facebook. MySPIE.

TOTAL

€671 M

SPIE and industry

Aerospace ◗ Agribusiness ◗ Automotive ◗ Steel Manufacturing ◗ Shipbuilding ◗ Chemicals and pharmaceuticals ◗



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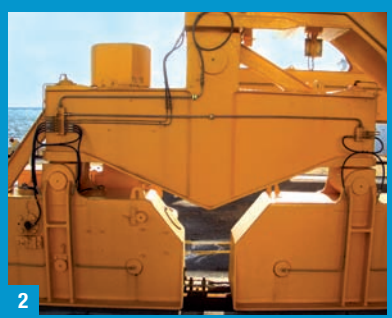
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1 - Replacement of automatic control devices on the lubricant packaging line at the TOTAL Lubrifiants plant in Grand Quevilly, France. 2 - Renovation of mechanical lubrication systems on four port cranes at the Brest Naval Shipyard, for France's Defence Infrastructure Service (SID). 3 - Prefabrication, construction, piping and insulation systems, and assembly of equipment that produces energy by burning animal fat, for Electrawinds in Belgium. 4 - Installation of a CO_2 capture unit for France's Petroleum Institute (IFP). 5 - Mechanical maintenance services for the Monsanto plant in Antwerp, Belgium. 6 - Carbon capture test installation for Nuon and CB&I in the Netherlands.

With today's focus on reduced energy use, **optimised processes, recycling** and waste recovery, the time is right to produce more and more effectively while using **less energy** and fewer raw materials. This fully-fledged **industrial eco-revolution** affects all business sectors and signals the emergence of a crucial benchmark for the future: the ISO 14062 environmental management standard.

CREATING INDUSTRIAL VALUE DIFFERENTLY

From deploying more energy-efficient production methods to reducing the environmental footprint of manufacturing operations, industry clearly has a key role to play in meeting society's sustainable development objectives. At SPIE, we're supporting this commitment through services clearly focused on energy and environmental efficiency.

OUR OBJECTIVES

IMPROVE UTILITY AND PROCESS MANAGEMENT
LIMIT ENERGY USE
DEVELOP ENVIRONMENTAL POLICIES

In markets often hard hit by the recession in 2009, manufacturing companies are seeing a faster pace of change in their production methods, with the search for new ways to generate savings, the need to comply with regulations and standards, and the development of optimised utilities and processes. These changes call for innovative solutions to capture the value of production facilities by leveraging expertise adapted to each industry segment and devising practical responses to environmental concerns. The past year saw the wider use of energy performance contracts that include long-term commitments to reducing both energy use and carbon emissions.

ENHANCING ENERGY AND ENVIRONMENTAL EFFICIENCY

There are many ways to sustainably reduce or eliminate the environmental impact of an industrial process. This can be achieved, for example, through improvements in facilities management, equipment performance or electrical power networks. The ISO 14001 certification process aims to limit environmental impacts by reducing water and energy use by 10% to 15% and raw material consumption by 5% to 25% while increasing waste recovery by 20% to 30%. SPIE helps customers meet these objectives through its integrated electrical, HVAC and mechanical engineering skills, which extend from supervision to full integration of customers' IT systems.

The use of variable-speed drives for pumps, fans and motors helps to reduce energy use by 10% to 50%, in an area of operations that often represents one-third of total consumption. Combined with the use of renewable energies and more efficient recycling and waste recovery programmes, manufacturers can substantially improve their financial and

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1 - Facilities management of more than 1,000 computer workstations and a help desk for EADS Sogerma, which produces fuselage parts, cockpit seats and cabin fittings for aircraft in the Airbus range.

2 - Installation of pumps, valves and other instruments and devices at both ends of a pipeline that transports bioethanol at a new Total production unit in Feluy, Belgium.

3 - Renovation of the supersonic wind tunnel at the French aerospace research centre (ONERA) in Modane-Arvieux, France.

3

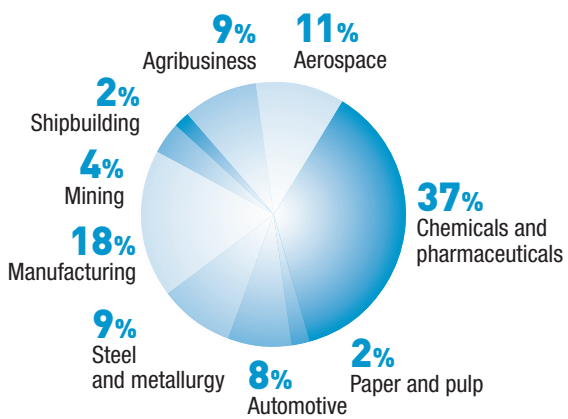
environmental performance. In the Netherlands, for example, SPIE managed an ambitious project for Corus, Europe's second largest steel producer. The project involved replacing a 275-tonne, 90-metre gas pipe in order to produce energy from gases collected at the end of the pipe. Producing one tonne of steel generates two tonnes of CO_2 emissions on average, while the goal is to reduce carbon emissions by 50% by 2015, in line with European directives.

ENABLING EXCELLENCE IN INDUSTRIAL PROJECTS

Every industrial project is unique in its nature, complexity, size, time constraints and challenges. With the support of its expertise platforms and technology institute, SPIE can deploy teams, resources and methods tailored to the needs of specific worksites, some of which are exceptional in terms of their size and the capabilities they require. In the agribusiness segment, SPIE participated during the year in a project on the world's largest malting plant for a customer

Total Industry: €671M

Breakdown by segment



Industrial power systems at Urbaser Valorga International's methanation plant in Fos-sur-Mer, France. The project involved the design and deployment of high voltage and low voltage equipment, as well as instruments and control system wiring. SPIE teams also installed air-conditioning, ventilation and plumbing systems in administrative buildings and production facilities.

that specialises in the collection and primary processing of grains. The project involved the installation of 240 motors, 950 instruments, 90 km of wiring and 8 km of processing lines. In the aerospace segment, a supersonic wind tunnel was renovated in a very challenging operation that involved the handling of a 54-tonne high-pressure rotor. In the shipbuilding industry, SPIE pursued its partnership with DCNS, the French naval defence company and Europe's leading naval armament manufacturer, by participating in the European Multi-Mission Frigate (FREMM) programme.

Present on thousands of industrial sites throughout Europe, SPIE teams are developing synergies between different skills platforms through a responsive organisation that is committed to rapidly deploying the necessary capabilities and expertise. In 2009, a state-of-the-art production plant in the Czech Republic was brought on stream just two years after ground was broken. With initial studies, engineering and procurement managed by SPIE teams in the Netherlands, the project required the skills of all building trades, leading to partnerships with Czech subcontractors and the hiring of local staff.

Facilities management for manufacturers

To meet their ever-growing need for information and communication systems, manufacturers are increasingly looking to outsource IT management. For EADS Sogerma, which produces fuselage parts and cabin fittings for civil and military aircraft, SPIE provides onsite management for around 1,000 computers as well as remote user support services from its help desk in Toulouse. This critical service ensures operational reliability of the company's IT resources, freeing teams from problems related to hardware and software life cycle management.

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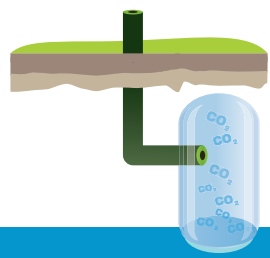
1 - Replacement of a gas pipe for Corus, Europe's second largest steel producer. Measuring 90 metres long, 65 metres high and 3.2 metres in diameter, the 275-tonne pipe is used to remove gases emitted during steel production. The gases, which are collected at the end of the pipe, are reused by Corus and a local electrical power plant to generate energy.

2 - Installation of electrical distribution equipment, low voltage panelboards and automation devices for the malting plant operated by Groupe Soufflet, the world's leading malt producer, in Nogent-sur-Seine, in eastern France.

3 - Automation devices and supervision of the glass container line (for tomato sauce) and the flexible container line (for ketchup) for Conserves de Provence, which markets its products under the Le Cabanon brand.

FROM COMPUTER-INTEGRATED MANUFACTURING TO ADVANCED LOGISTICS

The principles of manufacturing and logistical efficiency can be applied in many fields, including quality control, economies of scale, standardisation, automation, flow management, resource optimisation and shared logistics systems and IT applications. In the area of industrial analysis, for example, SPIE provides oil and petrochemical companies with specialised services to control finished product quality and compliance, while ensuring process safety and environmental protection. Thanks to automated sample selection, components can be analysed in real time during the production process, which enables teams to take action more quickly in the event of a problem. SPIE has also developed cutting-edge industrial logistics solutions with tools that optimise the entire information flow process. These include inventory management (from the factory gate to onsite commissioning with full traceability), optimised travel schedules, service call tracking using VR-DATA software, the nationwide Telview® solution that enables customers to track maintenance requests in real time, and the installation of data exchange platforms. In all, SPIE manages some 4,000 sq.m of storage space, representing 120,000 logistics flows.



CO_2 capture and storage

Burying carbon dioxide deep in the earth represents a new solution for reducing the impact of fossil fuels on global warming. SPIE is involved in several European CO_2 capture projects. In Belgium, our teams took part in the construction of a test installation for gas and electricity operator Nuon by devising a 3D plant prototype before the operational phase was launched. In southwestern France, another pilot project is being carried out with Total that will enable up to 150,000 tonnes of CO_2 to be injected into a former natural gas field.

THE GREEN ECONOMY

SPIE glossary

SHARING A COMMON LANGUAGE

Green economy

An economy that is aware of the scarcity of natural resources – particularly energy resources – and which takes climate change issues into consideration.

Non-renewable resources

Our planet has many natural resources that are used for food, heating, travel, manufacturing, transportation and other activities. Resources include minerals, gas, oil, coal, farmable land, water and air. Some of them are not renewed as they are used and thus are limited in quantity. The increase in the world's population and economic overuse of these resources will lead to shortages in some of them.

Peak oil

Although they exist in substantial amounts, oil and other hydrocarbons are non-renewable resources. Peak oil refers to the moment when world oil production will begin to drop due to the depletion of usable oil reserves. Experts predict this peak will occur between 2010 and 2050.

Global warming

Global warming refers to the long-term, worldwide increase in the average temperature of the Earth's oceans and atmosphere. Today, the term is often used to designate climate change as studied by the Intergovernmental Panel on Climate Change. The IPCC's work reveals the human role and responsibility in the acceleration in global warming observed since the mid-20th century. The main causes are greenhouse gas emissions, such as carbon dioxide and methane, especially due to the use of coal, oil, gas and other fossil fuels, as well as intensive livestock farming and deforestation.

Sustainable Development/ Corporate Social Responsibility

Sustainable development is an ethical growth concept that seeks to reconcile economic expansion, social progress and environmental preservation. It has been defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
Corporate social responsibility refers to sustainable development as it applies to companies and other organisations. The company seeks to attain its business objectives while complying with ethical principles and protecting the environment in both its internal and external operations. Maintaining constructive relations with employees and integrating societal issues like diversity are practical applications of corporate social responsibility, as are energy efficiency and waste recycling programmes.

Renewable energies

Renewable energies come from unlimited natural sources, such as the sun (solar, thermal and photovoltaic systems), wind (turbines), water (hydraulic systems), the earth (geothermal power), the gravitational pull of the sun and moon on oceans (tidal power) and plant and other organic residue (biomass). Unlike fossil fuels, these are not finite resources.

Fossil energies

These refer to energy that is produced from gas, oil, coal and other fossil fuels extracted from the ground and substrata. They are created by the fossilisation of plant life over millions of years. When burned, they emit greenhouse gases, mainly carbon dioxide (CO_2). These fuels exist in limited quantities.

Nuclear energy

Nuclear energy is created by transforming the nucleus of an atom. There are two types of nuclear reactions: fusion, which involves light atoms such as hydrogen, and fission, which involves heavy atoms like uranium. Today, only fission is used for industrial purposes, to produce electricity in nuclear power plants. Research is currently being conducted on fusion as a future energy source (see for example the ITER project in France or The Culham Centre for Fusion Energy in UK).

Primary energy/final energy

Primary energy refers to energy sources found in nature, such as hydrocarbons, solar, and wind energy, which are used to produce final energy for the consumer. The difference between these two forms of energy corresponds to energy loss during production and transport. Thus primary energy refers to energy before it is transformed. Examples include oil, natural gas, coal, heat produced by a nuclear reactor, the sun's rays and wind. Final energy is energy that has been transformed and made available to the end user. Examples include electricity and fuel.

Energy efficiency

Energy efficiency refers to a system that uses minimum energy while producing maximum yield. Improving energy efficiency is the process of reducing energy consumption while obtaining the same performance, for example, in terms of room temperature, lighting, production of compressed air in a factory and vehicle fuel consumption. Energy efficiency plays an important role in helping to reduce greenhouse gas emissions.

Energy performance audits (DPE)

An energy performance audit (DPE) is a French certification process that evaluates a building's energy use and makes technical recommendations on ways to reduce consumption.

Low-energy building

A low-energy building uses as much as five times less energy than a conventional building. A building's energy use is measured in kilowatt-hours (kWh) of primary energy consumed per year per square metre of usable floor area. The calculation takes into account heating, hot water, air-conditioning, lighting and auxiliary heating and ventilation equipment. In France, a low-energy building is one that consumes no more than 50 kWh of primary energy per year per square metre of gross floor area (for a new construction) and 80 kWh of primary energy per year per square metre of gross floor area (for a renovation project).

Energy-plus building

An energy-plus building produces more electrical and heat energy than it consumes on a yearly average. It is generally well insulated and fitted with solar panels, heat pumps and/or other equipment for storing and delivering heat or generating electricity.

High environmental quality building

A high environmental quality building is one whose design and energy performance comply with France's HQE environmental standards. To obtain HQE® certification, a building is expected to exceed legal requirements in 7 of the 14 targets defined by the HQE association, with a commitment to obtain the highest rating in at least three of them. The 14 targets fall into two categories: those that have a limited impact on the external environment and those that create a satisfactory internal environment. The potential savings of an HQE-certified building project are based on overall cost and take into account both investment and operating costs.

Thermal regulations

Every European country has its own minimum thermal insulation requirements for building construction and renovation projects. France, for example, uses the RT 2005 standard, which will soon be upgraded to RT 2010, followed by RT 2012, L1A/B and F1 in the UK, CTE in Spain, etc.

Greenhouse gases (GHG)

The greenhouse effect is a phenomenon that is well known to gardeners. A greenhouse lets the sun's rays enter, which then heat the air inside. Once heated, the floor of the greenhouse releases the energy as infrared rays, some of which are reflected back into the greenhouse by the roof. As a result, a high temperature is maintained inside the greenhouse. The Earth's atmosphere functions like a gigantic greenhouse whose roof is made of gases, some of which let the sun's rays penetrate and prevent the infrared rays from escaping. These gases are called greenhouse gases (GHG). The greenhouse effect is a natural phenomenon. If it didn't exist, the average temperature on Earth would be approximately -18°C. The problem stems from the ever-increasing concentration of greenhouse gases in the atmosphere resulting from human activity. This increase is a major cause of global warming. The main greenhouse gases produced by human activity are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and ozone (O_3).

CO_2 emissions

Carbon dioxide (CO_2) is one of the main greenhouse gases. It is used as a reference for:
- Greenhouse gas emissions, which are measured in tonnes of CO_2 equivalent.
- International agreements on reducing greenhouse gas emissions, such as those signed in Kyoto and Copenhagen.
- Communication about the environmental performance of certain products, such as automobile CO_2 emissions.

Some carbon dioxide emissions are natural while others are caused by human activities. When burned, fossil fuels like coal, oil and gas emit CO_2.

Carbon footprint

A carbon footprint is a tool for calculating greenhouse gas emissions. For a company, the purpose of a carbon footprint is to assess all direct emissions or those caused by its business activities, including building operations, travel and purchasing, and to identify ways to reduce these emissions.

CO_2 capture and storage

CO_2 capture and storage is one solution for reducing CO_2 emissions caused by industrial operations. The principle involves capturing CO_2 at the source (refineries, plants, power stations, etc.), then concentrating and transporting it to a geological site for storage.

CO_2 allowance allocation plan

To help reduce CO_2 emissions, on 1 January 2005 Europe introduced carbon dioxide allowances for a number of companies in the power production, manufacturing and services sectors. An initial plan (the so-called NAP1 [PNAQ1 in France, PNAD1 in Spain, NAP1 in Germany])covered the period 2005-2007, with a second plan introduced for the period 2008-2012.

Recovering CO_2 costs

Measures exist in a number of countries for recovering CO_2 costs. These fall into two main categories:
- An emissions trading system that allocates permits to business and organisations. Those that reduce their emissions beyond required levels can sell their surplus allowances to those that haven't met their targets.
- A carbon tax is an environmental tax levied on certain products or fuels based on their carbon content and potential CO_2 emissions.

Factor Four

In order to limit global warming to 2°C (the threshold beyond which dire social and environmental consequences would be more likely), it is necessary to cut worldwide CO_2 emissions in half by 2050. As the largest producers of CO_2, the so-called developed countries will need to lower their emissions by a factor of four by that time. Factor Four is a broad concept dating back to 1972 when the Club of Rome issued a report calling for natural resources to be used four times more efficiently.

The 20-20-20 objective

The European Union has identified an ambitious set of targets for 2020, known as 20-20-20, which calls for a:
- 20% reduction of greenhouse gases compared to 1990 levels.
- 20% reduction in energy use compared to 1990 levels.
- 20% share of renewable energy in overall EU energy consumption.

The Climate and Energy Package

Approved by EU authorities, the package comprises various pieces of legislation for helping member states meet the energy and climate challenge.

Grenelle environment conference

The Grenelle environment conference was a roundtable organised by the French government in 2007 that brought together elected officials, associations, trade unions, businesses and scientists.

Key events (Rio, Kyoto, Copenhagen summits)

Rio Conference (1992)
The Rio Conference was organised by the United Nations in Rio de Janeiro in 1992 as a follow-up to the first Earth Summit held in 1972 in Stockholm. It adopted the Rio Declaration on Environment and Development, a benchmark document containing 27 principles for guiding sustainable development around the world. It also adopted Agenda 21, a programme intended to guide development in the 21st century. In addition, the Rio Conference produced the Climate Change Convention, an agreement that underscores the necessity of reducing greenhouse gases.

Kyoto Protocol (1997)
There are three major international treaties dealing with climate change. The United Nations Framework Convention on Climate Change (UNFCCC), which came into force on 21 March 1994, has been ratified by 189 countries, including the United States. Parties to the convention are committed to stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. They must submit inventories of their greenhouse gas emissions and prepare, implement and publish national programmes containing climate change mitigation measures. The update to the convention – the 1997 Kyoto Protocol, adopted – came into force in February 2005. It has been ratified by 172 countries, with the notable exception of the United States. Going further than its predecessor, the Kyoto Protocol establishes a timetable for reducing the six greenhouse gases considered to be the main cause of global warming in the last 50 years. It sets binding targets for 38 industrialised countries to reduce their CO_2 emissions to levels 5.2% below those of 1990 by 2012. A new agreement is expected to be adopted when the Kyoto Protocol expires in 2012.

The Copenhagen Summit
Held in December 2009, the Copenhagen Summit ended with a watered-down agreement that:
- Confirmed the objective of limiting the global temperature rise to 2°C, though without any binding schedule on when to achieve it
- Created a special fund to assist the most vulnerable countries

No targets were set for reducing greenhouse gas emissions by 2050. Another United Nations Climate Change conference is to be held in Mexico City in December 2010.

Agenda 21

One of the texts adopted by the Rio Conference was Agenda 21, a plan of action for the 21st century containing some 2,500 recommendations for implementing the Rio Declaration principles. It addresses such issues as healthcare, housing, air pollution, protection of the oceans and sea, forest management, mountain development, desertification, protection of water resources and water quality, farm management and waste management. Today, Agenda 21 continues to be the blueprint for sustainable development at the regional and local levels.

IPCC

The Intergovernmental Panel on Climate Change is a scientific body that evaluates the risks of climate change. It was established in 1988 by the World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP), following a demand by the G7 (now G8). The IPCC was awarded the Nobel Peace Prize in 2007 for its efforts on climate change and recommendations on how to avoid a dangerous increase in the average temperature of the planet. An excessive rise in temperature is seen as a potential threat to world peace.

ISO 14001 – Environmental management system (EMS)

The ISO 14001 standard is backed by a commitment to continuous improvement in environmental performance and compliance with applicable legislation through the use of quality management practices to reduce the environmental impact of business operations.

Eco-friendly attitude

An eco-friendly attitude implies carrying out good environmental practices and sustainable development activities on a daily basis. These include sorting waste, driving economically, turning off lights and reducing water consumption.

Sorting/Recycling/Recovery

Waste recycling is a way of offsetting the over consumption of resources. It entails the reintroduction of waste into the production cycle from which it came through the partial or total replacement of virgin resources. Waste materials are sorted and collected according to type so that their raw materials can be reprocessed. Recovery consists in re-using, recycling or otherwise processing waste in order to recover materials or energy. Glass bottles can be re-melted to make new ones, and plastic bottles, once they have been shredded into pellets, can be used to manufacture synthetic fibres for the textile industry.

Zero/low emissions vehicle

A zero/low emissions vehicle is less polluting than a conventional gasoline or diesel model. Performance is based on CO_2 emissions per km. Zero or low emissions technology refers to vehicles that run on electrical power, liquefied petroleum gas (LPG) or biofuel, as well as hybrid vehicles with a combined internal combustion/electric motor system.

Green IT

Green IT is the practice of designing and using information and communication technology with minimal impact on the environment, especially by reducing energy consumption and greenhouse gas emissions. Green IT responds to two major challenges, namely to:
- Reduce the energy usage of IT equipment and communications systems and increase the recycling of their components
- Contribute to the development of new practices such as remote communication to limit travelling, virtualisation to reduce energy consumption and power grid data management to optimise usage.

Smart grid

A smart grid uses digital technology to optimise the delivery of electricity from suppliers to consumers. The first step of the smart grid technological revolution is the deployment of smart meters. In Europe, power distribution and transmission systems were traditionally designed according to a centralised model. The electricity generation and distribution system is governed by a core principle, which is to maintain a balance between supply and demand. Smart grids should enable utilities to better manage power generation and demand.

By improving the collection of data on usage patterns, smart meters will make it easier to avoid surges in demand and outages due to overloading. Another goal of the smart grid is to allow the higher penetration of intermittent generation sources. Developed by local producers, renewable energy sources are difficult to develop due to their incompatibility with conventional grid systems. Intermittent generation sources are difficult to integrate in the existing grid and do not provide power during peak demand.

Units

Energy: kWh/TOE

Joule (J) or watt-hour (Wh) are units of work, energy or amount of heat. To measure energy – often large amounts – the following system of units is used:

Term	Basic unit multiplied by	Symbol
Kilo	x 1,000 or 10^3	**K**
Mega	x 1,000,000 or 10^6	**M**
Giga	x 1,000,000,000 or 10^9	**G**
Tera	x 1,000,000,000,000 or 10^{12}	**T**

Owing to oil's considerable economic and political importance, the term 'tonne of oil equivalent (toe)' has become the standard unit of measure for comparing different sources of energy. Various conversion factors have been defined based on this unit.

1 electrical MWh = 3.6 billion joules = 3.6 Gj = 0.086 toe

The megatoe or Mtoe is a unit of measure deployed by the International Energy Agency for comparing secondary energies, regardless of their mode of production.

Barrel of oil

The barrel is the standard unit of measure for oil transactions. The symbol bbl originally referred to blue barrel but is now the common abbreviation for barrel. Oil production is measured in barrels/day or tonnes per year. A barrel is equivalent to 159 litres. It takes 7 to 7.5 barrels of oil to make one metric tonne, depending on the density of the oil. One barrel per day is roughly equivalent to 50 metric tonnes per year.

Carbon dioxide equivalent

Greenhouse gas emissions are often expressed relative to CO_2 equivalent. The conversion of a GHG to CO_2 equivalent is based on its global warming potential ratio (GWP). CO_2 has an assigned GWP of 1 over a 100-year period.

Examples:
1 tonne of methane (CH_4) = 23 tonnes of CO_2 equivalent
1 tonne of nitrous oxide (N_2O) = 296 tonnes of CO_2 equivalent
This means that the emission of 1 tonne of nitrous oxide, 13 tonnes of methane, or 296 tonnes of carbon dioxide would basically have the same impact on global warming 100 years later.

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Design and production: eurokapi COMM
Copywriting: VOCEM / Blaise de Obaldia, SPIE / Communication Department
Photo credits: SPIE Photo Library, Philippe Bauduin, Xavier Boymond, Yves Chanoit, Muriel Chaulet, Nicolas Dohr, Vincent Jacques. AREVA / Geoffray Yann, EPR / © EDF Media Library-Alexis Morin/March 2010, Media Library CEA, EADS Sogerma Photo Library, Fondation Royaumont /Michel Chassat, © G.P.M.H., GFC Construction Media Library, Éric Thibaud, CHATEAU CYBORG, all rights reserved.
3D illustrations MySPIE: Bee-Buzziness.

Document published by the SPIE Communication Department
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Réf : POD-SPIE-RA09-EN-120710-REV001

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