

Sustainability Report

2011

We aim to be the leading provider of environmentally friendly, energy-saving heating, cooling and hot water solutions that are simple to operate. Our goal is sustainable and profitable growth for our family-owned company.

Vaillant Group vision

As a future-oriented family enterprise we set a benchmark in the areas of ecological, economical and social sustainability.

Sustainability vision

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Dr Carsten Stelzer, Dr Carsten Voigtländer, Dr Dietmar Meister

Ladies and Gentlemen,

Last year, we refocused the Vaillant Group's sustainability management strategy by launching our comprehensive S.E.E.D.S. programme. And now, it's time for yet another important step: setting binding, measurable targets for the years up to 2020 that show us the path for the years to come.

We are taking this step towards increased transparency very consciously. On the one hand, we can only live up to our goal of setting standards in the field of sustainable business if we set ambitious targets that aren't always easy to fulfil. On the other hand, by doing so, we are making it clear to our customers, employees, suppliers, partners and other stakeholders how central the topic is to our business activities.

In November 2011, we received an outstanding form of recognition for our work when we won the German Sustainability Award. A renowned panel of experts recognised the family heat and power system ecoPOWER 1.0, which generates environmentally friendly and highly efficient heat and power right at home, as "Germany's most sustainable product". This decision makes it clear that we can only master the challenges of climate change and scarce resources if we use the enormous saving and efficiency potential in the buildings sector. As a result, the Vaillant Group's core business of developing innovative solutions in the fields of heating, cooling and hot water has been given great social significance in addition to environmental relevance.

However, we are looking to assume responsibility, not only with our products, but also with our overall corporate governance. That's why we joined the United Nations Global Compact last year. This initiative, which was founded by former UN Secretary-General Kofi Annan, aims to strengthen the social commitment of businesses with a catalogue of basic values. The Vaillant Group expressly recognises these principles in the fields of human rights, labour standards, environmental protection and anti-corruption measures, and is committed to promoting them within its sphere of influence. Starting immediately, we will report annually on our progress in implementing the Global Compact in our day-to-day operations.

As a family-run company, we have made long-term, profitable growth our goal. At the same time, we are also looking to set standards in the areas of environmental and social sustainability. We've already made significant progress since launching the S.E.E.D.S. programme, and there's still lots more we plan on doing. By publishing this sustainability report, we intend to inform you about our strategic sustainability management, selected measures and the people behind the projects.

Dr Carsten Voigtländer
Chief Executive Officer
Managing Director
Sales & Marketing

Dr Dietmar Meister
Managing Director
Finance & Services

Dr Carsten Stelzer
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Technology

The Vaillant Group introduces itself

What began 138 years ago in an unassuming half-timbered house in Germany's Bergisches Land is today one of the world's leading companies in the heating, air-conditioning and ventilation industry. Then as now, our actions are characterised by prudent and forward-looking economic management.

An idea that would pave the way. After inventing the first closed system for hygienic water heating in the late 19th century, Johann Vaillant established the first industrial standard for generating heat efficiently and conveniently. Since then, the company has revolutionised the heating technology market again and again with its product developments. To this day, the Vaillant Group is an

international leader in technology and innovation, and its eight established brands cover one of the widest ranges in the industry. The company offers custom-tailored solutions – from efficient technologies based on conventional energy sources to technologies that make use of renewable energies to individually combinable, intuitive systems – for nearly every demand and life situation.

The company headquarters in Remscheid. The Vaillant Group has been at home in the city since 1874.



History of the Vaillant Group

1874

Johann Vaillant lays the foundation stone for today's Vaillant Group, which is still 100 per cent in family ownership.

1894

Patent filing for the "closed-system gas-fired bathroom boiler", which enables hygienic water heating for the first time.

1924

Vaillant develops the first central heating boiler, meaning that only radiators were needed in rooms.

1961

With the Circo Geyser, Vaillant is the first company in the world to market a wall-hung gas circulation water heater.

1995

Vaillant markets its first self-developed and produced wall-hung condensing heating appliance.

2001

Vaillant takes over the British Hepworth Group. The brands of the new group continue to be sold separately.

In the past financial year, the company's over 12,000 employees generated approximately 2.3 billion euros in sales. The driving force behind the company's business success has always been long-term investment in its own innovative strength and competitiveness. With maximum efficiency and comfort in mind, over 600 employees Group-wide perform research and develop the heating technology of tomorrow.

The Vaillant Group maintains production and R&D sites in six European countries and China. One of the industry's largest teams of service technicians ensures that the products sold worldwide in 60 countries continue to operate perfectly. No matter how international the Vaillant Group has become, it

hasn't forgotten its roots. Since being founded, the company has remained fully family-owned and is still headquartered in Remscheid to this very day. The founder's descendants bear responsibility for the Vaillant Group, serving in numerous company bodies: the Partners' General Meeting, the Partners' Board and the Supervisory Board. The corporate strategy, geared towards sustainably profitable growth, is laid down by the Management Board in close consultation with the Partners' Board.

Thinking in and for generations was already the essence of forward-thinking business for Johann Vaillant – an approach for which Germany's business journal Handelsblatt honoured him by the induction into their family-run companies hall of fame.



2004

The Vaillant Group puts its new module plant in Trenčín, Slovakia, into operation.

2006

Heat pump production is started in Gelsenkirchen.

2007

The Vaillant Group acquires the majority interest in the Turkish heating and air-conditioning specialist Türk Demir Döküm Fabrikaları.

2008

Opening of Vaillant's first own solar collectors production in Gelsenkirchen.

2010

The world's first zeolite gas heat pump is launched on the market. It boosts the efficiency of customary gas-fired condensing boilers by more than 20 per cent.

2011

With ecoPOWER 1.0, Vaillant presents the first micro-CHP system for single- and two-family houses. The family power station enables the simultaneous generation of heat and electricity in small residential buildings.



In a perfect position

With its eight heating technology brands, the Vaillant Group meets a wide range of diverse customer wishes and needs. Tailor-made products, system solutions and services cover the market's most important segments.

The Vaillant Group is home to the Vaillant brand and the Saunier Duval Brand Group, which offer one of the widest ranges in the heating, ventilation and air-conditioning industry. Vaillant, the Remscheid-based, family-owned company's biggest-selling brand, is focused on the premium segment. The brand offers a wide selection to customers with an upmarket demand for innovative technologies and custom-tailored system solutions.

With its Saunier Duval, awb, Bulex, DemirDöküm, Glow-worm, Hermann Saunier Duval and Protherm brands, the Saunier Duval Brand Group focuses on the needs of the high-volume medium price segment. Its target group consists of cus-

tomers who are looking for particularly appealing value for money, such as residential construction companies, property developers and installers. The Brand Group's regional focus is on the markets of southern, western and eastern Europe as well as the United Kingdom and Turkey.

Both Vaillant Group brand groups are united by a promise of quality based on tradition, expertise and passion that doesn't merely end once a product has been installed. A comprehensive network of Vaillant Group service technicians ensures that our products deliver what has always made them special throughout their entire life cycle: reliability, intuitive ease-of-use and maximum efficiency.



01

01 ► Wide-ranging: Vaillant presents its product portfolio at the industry trade fair SHK in Essen.

02 ► As you like it: With eight different brands, the Vaillant Group covers the diverse demands of customers.

03 ► Coralie Le Moal breathes life into the Saunier Duval brand at the brand workshop.



02



03

Johann Vaillant founded his master craftsman's installation company in Remscheid in 1874. In the 138 years since then, the company has become a leading supplier of intelligent systems for domestic comfort.



Saunier Duval, based in Nantes, France, has been a pioneer of the industry since 1907. The brand covers the entire range of heating, ventilation and air-conditioning technology as well as many innovations.



The Dutch company, founded by Herman van Thiels almost 80 years ago, has grown to become an important Dutch supplier that offers a wide range of products with excellent value for money.



Under the Belgian brand Bulex, high-quality appliances for heating, hot water and air-conditioning in business complexes and residential buildings have been offered for 80 years. Today they fulfil the highest demands for comfort and good ecology.



DemirDöküm, founded in 1954, is the leading heating and air-conditioning technology specialist in Turkey. In addition, DemirDöküm products are sold in more than 50 countries in Europe, Asia and North Africa.



Since 1934, the focus of the leading heating appliance manufacturer in the UK has been on reliable, highly efficient products that work in both an energy-saving and an environment-friendly way.



The Italian brand Hermann began its activities in the heating technology business in 1970. Its focus is still on wall-hung compact heating appliances. The brand now trades under the name Hermann Saunier Duval.



Protherm, the youngest brand, came into being in 1991 and today has a leading position in several Eastern European countries. Protherm also exports to many other countries in Europe, Asia and Africa.



Production and R&D sites

- | | | |
|-------------------------------|----------------------------|----------------|
| 1 Vaillant Group headquarters | 5 Floor-standing boilers | 9 Modules |
| 2 Research and development | 6 Gas water heaters | 10 Storages |
| 3 Wall-hung boilers | 7 Electrical appliances | 11 Electronics |
| 4 Renewable energies | 8 Air-conditioning systems | 12 Radiators |





01 ► As Line Leader, Qui Qiaohui oversees the production of Protherm wall-hung boilers in Wuxi.

02 ► Bundled: At the Competence Centre for renewable energy in Gelsenkirchen, we make CHPs as well as solar collectors and heat pumps.

03 ► Team Leader Adnan Ates in Remscheid's production facility.



Close to the market and well-connected

The Vaillant Group manufactures its products in six European countries and China. To put our employees' expertise to the best possible use, we bundle the production of related appliances and components at selected sites.

Whether it's gas boilers, for the UK, solar collectors for France or combined heat and power (CHP) systems for Germany, the Vaillant Group manufactures its products close to the market and according to regional demands. By locally bundling production and R&D expertise at selected sites, we ensure compliance with the highest standards for quality and innovation. Keeping the distance to our customers' markets short reduces costs, the use of resources and emissions.

The basis of our production is geared towards growth in all future-oriented product segments, with a special emphasis on renewable energies, high-efficiency technologies and system tech-

nologies. This way, the company can react ideally to new developments on international heating technology markets and live up to its reputation as a driving force of innovation and as a technological leader.

But even the best network is only as good as the connection of its intersections. That's why the Vaillant Group's production sites are intelligently connected to each other by efficient logistics chains. Constant process monitoring ensures customer-friendly delivery times and short routes of transportation. Not only is this a major victory for quality, it's also a big win for our climate.



Responsibility as a principle

As a future-oriented, family-run company, the Vaillant Group acknowledges its special responsibility – towards the environment, the employees and society. We are convinced that business success is inseparably connected with being committed to social and environmental standards.

As a high-tech company, that develops innovative, efficient solutions in the fields of heating, cooling and hot water, taking a look at the complex subject of sustainability certainly seems like a logical step. Our customers, in particular, have clear-cut expectations not only regarding efficient use of the materials and energy that go into making our products but also concerning the economical operations of our devices. But the guiding principle of sustainability means more than just marketing particularly efficient products. It makes it clear that a company's strategic and operative decisions must be made with aspects of sustainability in mind. The underlying question is: "What are the direct and indirect consequences for people and the environment?" Now and in the future.

That's why we rank sustainability as a strategic core project. These projects have high priority for the company and are instrumental to achieving the goal stated in the Vaillant Group Vision: the goal of sustainable and profitable growth.

As a strategic core project, we steer Group-wide sustainability activities centrally. The Vaillant Group Sustainability Management department is responsible for this task. The department is part of **Corporate Communications & Sustainability**



Sustainability Board	Sustainability Circle	Sustainability Forum
<ul style="list-style-type: none"> • Management Board • Sustainability Management • Representatives of the top management levels 	<ul style="list-style-type: none"> • Sustainability Management • Representatives of headquarters departments (Purchasing, Production, Logistics, Sales, Service, etc.) 	<ul style="list-style-type: none"> • Sustainability Management • Special environmental representatives of all plants
<ul style="list-style-type: none"> • Strategic decisions 	<ul style="list-style-type: none"> • Operational measures 	<ul style="list-style-type: none"> • Environment-friendly production processes
Sustainability Management		

01 ► Trade fairs aren't the only place to get a look inside our products. For us, transparency is an important part of responsible corporate governance.

02 ► At the Vaillant Group, sustainability is a strategic core project that is a key element of achieving corporate targets.

Management and reports directly to the CEO of the Vaillant Group. This department sets sustainability goals in close consultation with the Management Board and the individual units, systematically monitors the state of implementation and provides inspiration for improving company-wide sustainability performance.

Various sustainability bodies meet once a year to discuss the ongoing implementation of the Vaillant Group sustainability strategy. **The Vaillant Group Sustainability Board** discusses and approves all major strategic decisions related to sustainability. This committee includes the Management Board, the Sustainability Management department and representatives of top management. Based on the strategic direction, the **Vaillant Group Sustainability Circle** works out the main measures in the Vaillant Group's operational area. The Circle is composed of the Sustainability Management department as well as members of central departments such as Purchasing, Production, Logistics, Sales, Service and Quality. Together with special environmental representatives from all Vaillant Group plants, the Sustainability Management department discusses questions on environmen-

tally friendly and resource-optimised production processes in the **Vaillant Group Sustainability Forum**. Additionally, specialised bodies, such as the international Supply Chain Manager meeting, discuss and further develop sustainability topics.

Issues arising from current sustainability discussions are regularly integrated into the work of the sustainability bodies. The Vaillant Group is actively involved in various specialised initiatives to make elements of public discourse usable and contribute its own experiences to the debate. To do so, the company is a member of the Sustainability Leadership Forum, which was founded by the German Association of Environmental Management e.V. (B.A.U.M.) and the Centre for Sustainability Management (CSM) at Leuphana University Luneburg. In this forum, a small circle of selected companies debate key issues, ideas and concepts of sustainable business.

As a long-time partner, we also support the German Sustainability Award Foundation in their quest to make sustainable business principles a more visible part of public discourse.

Step by step

In keeping with its sustainability vision, the Vaillant Group is looking to set standards in all aspects of sustainable business. To live up to its ambitious goals, the company bundles its activities into a strategic sustainability programme.

Five simple letters sum up the Vaillant Group's focus in realising its sustainability vision: S.E.E.D.S. – short for **S**ustainability in **E**nvironment, **E**mployees, **D**evelopment & Products and **S**ociety. In these fields the Sustainability department defines targets in close consultation with the Management Board and specialist divisions, defines responsibilities and identifies both successes and shortcomings.

Understanding sustainability as a whole forms the basis for defining these fields. This understanding also takes the main challenges in our core business into account. By doing so, the Sustainability Management department supports the Vaillant Group's goal of sustainably increasing profitability in connection with balanced growth.

As simple as the S.E.E.D.S. formula may seem, the subject matter it covers is highly complex. That's why the Group's sustainability programme contains a differentiated management system.

Our management approach

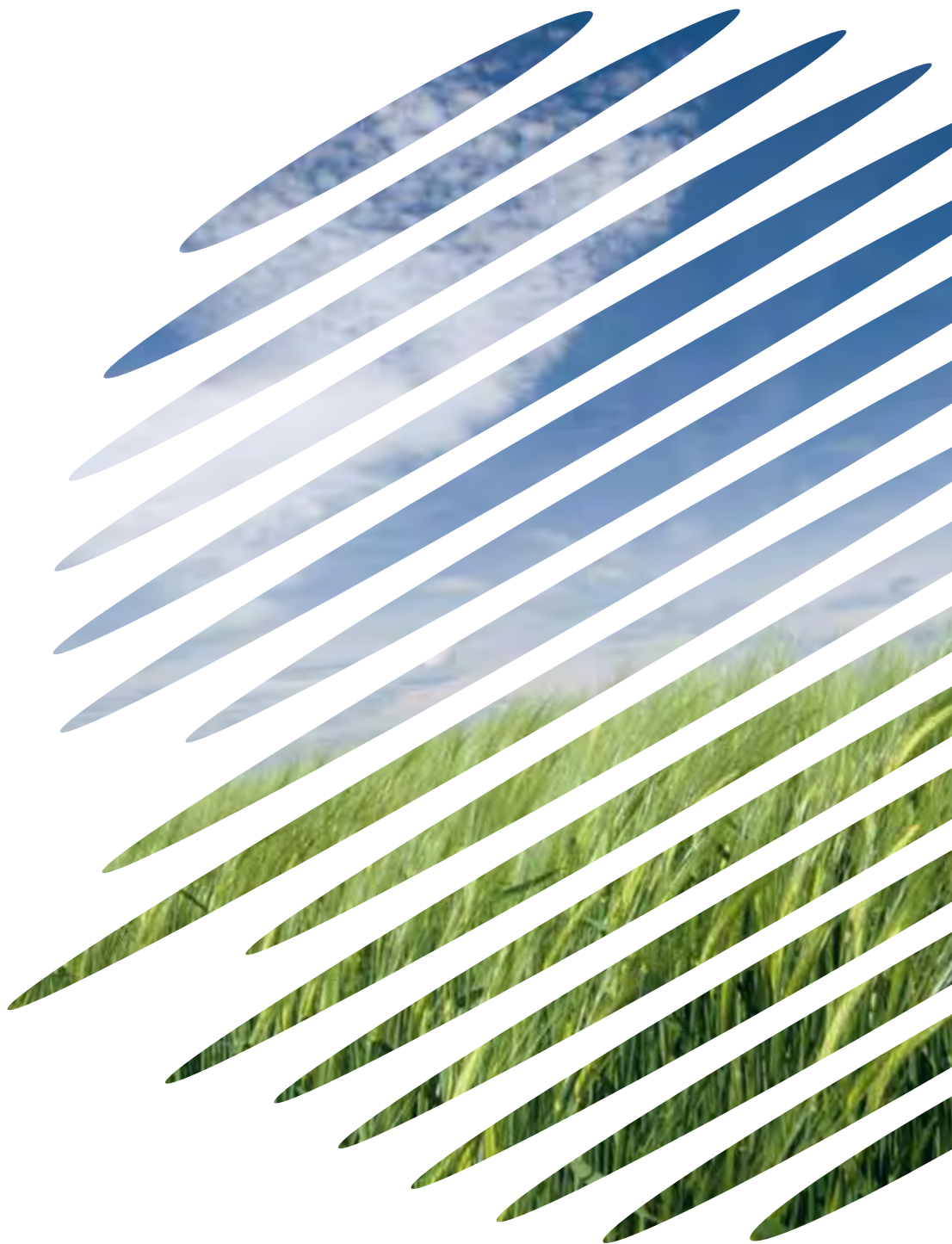
Sound management requires accountability. We organise the sustainability targets for every focus area in two steps. At first, we divide the top targets into subtargets. Then, we set key performance indicators (KPIs) and target values for every subtarget. To achieve these, we define operative measures and regularly check to see how effective they are.

The Vaillant Group Sustainability Scorecard, which contains all the indicators, clearly illustrates this process. Every quarter, we survey all data on a Group-wide basis to calculate the individual KPIs. When interpreting these figures, we take the expansion of production capacities or increased volumes into account. By comparing these statistics with the figures from the same period in the previous year and the long-term targets, we are able to get a reliable picture of the current state of our sustainability performance. We constantly integrate these findings into specific management systems, such as our environmental management system, which manages the use of resources or greenhouse gas emissions. This way, all departments and the Management Board receive the necessary information to provide targeted inspiration in their areas of responsibility.

As a result, S.E.E.D.S. is a strategic sustainability programme in the best sense of the word: one that formulates targets, constantly creates transparency and makes adjustments wherever improvement is needed.



Communication: Sustainability is an important subject for our employees that goes beyond the boundaries of their own departments.



S.E.E.D.S.

Strategic sustainability programme

Sustainability in

Environment

Employees

Development & Products

Society

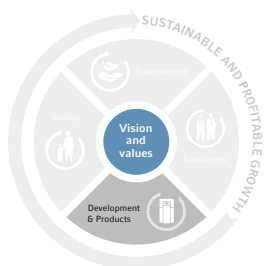
In black and white

Following the strategic realignment of our sustainability management in early 2011, the Vaillant Group is now taking a further important step: setting binding, verifiable targets for the years up to 2020 that show us the path for the years to come. Join us on our journey.



Sustainability

Sustainability is an integral part of our corporate culture and strategy. Our goal is to take a leading position in key sustainability areas and to serve as a role model.



Development & products

Our goal is to offer our customers energy-efficient products throughout the entire product life cycle – from development to purchasing, production and use, and all the way to service and recycling.

Targets

80

% Turnover of high-efficiency products
–15% Greenhouse gas emission of the product portfolio
+15% Material efficiency



Environment

Protecting the environment and resources is an important part of the Vaillant Group's sustainability strategy. We aim to use resources responsibly, to consistently lower CO₂ emissions, prevent negative influences on the environment and actively use opportunities for improvement.

Targets

–25

% CO₂
+20% Energy efficiency
–20% Water
–20% Waste



Employees

Our employees form the foundation and the soul of the Vaillant Group. We pursue the goal of being the employer of choice for job applicants and current employees.

Targets

0 incidents
Employer of choice



Society

The Vaillant Group acknowledges its social responsibility. The company makes an active contribution where it operates, for social progress and the welfare of people.

Targets

10 Global Compact principles as a living standard
Strategic orientation of our CSR commitment
Systematic stakeholder dialogue



All percentages refer to the 2010 reference year.

The new structure has proven itself

Dr Carsten Voigtländer, CEO of the Vaillant Group, takes a look back at the first year after reworking the sustainability strategy and gives us a look ahead at future developments.

How would you sum up the first year of the S.E.E.D.S. programme?

► The new structure has proven itself. Concentrating on four strategic fields of focus has tangibly increased the effectiveness of our measures. Priorities are clearly visible and the added value of consistent orientation towards sustainability aspects is much easier to communicate. At the same time, this increased transparency makes it clear where we still have to improve.

What were your personal sustainability highlights in 2011?

► There were many. One of them is most certainly winning the German Sustainability Award for the ecoPOWER 1.0 CHP system. It really spurs you on when such a renowned jury recognises the significance of a truly trendsetting technology. It was also exciting to announce the first ever S.E.E.D.S. Award, which we directed towards our employees. The creativity and diversity of the projects we received is remarkable. Both competitions show to an equal extent that sustainability is a key factor of success and our employees' know-how and passion harbour a great deal of potential.

How significant is formulating binding targets for the year 2020?

► By communicating targets that are valid on a Group-wide basis, we are quite intentionally opening ourselves up, both inwardly and outwardly. Not only do our customers and business partners realise that we take sustainability seriously, all our employees – including myself and my Management Board colleagues – now know the shape of things to come. We have identified a shared goal and defined a wide range of measures to achieve it. The task now is to stay on course.

Where do you see decisive elements in the Vaillant Group's core business?

► In terms of products, for years the focus has been high-efficiency systems and using renewable energies. This strategy is coming to bear. We will continue down our chosen path in the years to come. During this time, we intend to increase successively the share of high-efficiency technologies and of those using renewable energy in our overall portfolio to 80 per cent. At the same time, we intend to increase material efficiency by 15 per cent. Those are most certainly ambitious objectives. The interesting part is that the quality of our products and our position as an innovative full-range provider profit from our efforts. As a result, we are doing justice to our customers' high expectations for the efficiency and environmental sustainability of modern heating and ventilation technology.







01 ► We produce solar collectors in our Gelsenkirchen plant according to certified standards.

02 ► Our Trenčín plant is also part of multi-site certification.

A system for achieving targets

Sustainability always means accountability. Quality, environmental and social standards guarantee that claims of responsible business management are more than just lofty rhetoric. That's why we commission independent testing institutes to audit our performance.

The guiding principle set out in the Vaillant Group's sustainability vision can only be realised if all aspects of prudent creation of value are systematically examined, put to the test and improved where necessary. Separate management systems overseeing the company's performance in the fields of environmental protection, occupational health and safety, and quality guide this task.

Benchmarks for corporate management systems are set out in Europe-wide standards. Quality standard EN ISO 9001 sets requirements prescribing a certain benchmark of quality. Strategic management of resource consumption and environmental emissions is prescribed by environmental standard EN ISO 14001. And occupational health and safety standard OHSAS 18001 concerns the employees' well-being on the job.

The Vaillant Group regularly commissions independent testing institutes to audit application of and adherence to these benchmarks as part of a so-called multi-site certification process. The bulk

of our sites have been certified as compliant with quality standard EN ISO 9001 and environmental standard EN ISO 14001. Our successes continue to bear us out. For example, we have been able to cut down quality-related service calls by 25 per cent over the last three years. And we have continued to reduce warranty and goodwill costs significantly. The positive development of our ecological KPIs is a further indication of the system's effectiveness. Moreover, we are just as ambitious when it comes to workplace health. Certification that our policies on occupational health and safety are in compliance with OHSAS 18001 is on our to-do list for the coming years.

The commitment of the Vaillant Group to quality management, environmental and occupational health and safety policies is out in the open for all to see. What's more, the Group subjects its benchmarks to regular review. Our customers, business partners and employees can refer to the principles cited here at any time. After all, sustainability always means accountability.

QUALITY POLICY

► Customer focus

Customers determine products and services as well as the quality they expect from a brand.

► Quality responsibility

Quality is the task and goal of every employee. Managers are role models for their staff.

► Continuous improvement

Existing processes are measured and improved on an ongoing basis to generate more profitable growth. This is done using measurable processes and Six Sigma methods.

► Employees

Employees are empowered to perform their tasks effectively and efficiently. This supports development of the organisation. We aim to be the partner of choice for tailor-made solutions (system supplier and service provider).

► Sustainability

Aspects of sustainability play a major role within quality management. For this reason, our management system is based on the principles stipulated in EN ISO 9001 and EN ISO 14001. We pursue the goal of retaining customers long-term through high-quality, eco-friendly products and efficient service.

► Social responsibility

In developing and manufacturing its products, the Vaillant Group undertakes to manage resources and the environment in a responsible way.

ENVIRONMENTAL POLICY

► Customer focus

By accepting ecological responsibility, the Vaillant Group contributes to customer satisfaction. Our responsible approach is underlined by the steadily increasing proportion of high-efficiency, resource-friendly products in our range and their environmentally compatible disposal at the end of the product life cycle.

► Environmental responsibility

The Vaillant Group is committed to comprehensive environmental protection which takes into account current legal requirements.

► Continuous improvement

To ensure sustainable environmental performance, environmental aspects have been identified. On the basis of these aspects, the consumption of resources by Vaillant business processes in development, production and sales is continuously optimised.

► Employees

The Vaillant employee management system empowers all employees to support the organisation in its environmental policy. Eco-friendly work conditions make a major contribution to employee satisfaction.

► Sustainability

The sustainability management system of the Vaillant Group ensures attainment of environmental goals and the actual environmental quality of business processes. Our contractual partners are included in our efforts to continuously improve environmental protection. The efficient use of resources, production processes that produce minimum waste and emissions, as well as energy-efficient products help secure the business results of the Vaillant Group.

► Social responsibility

We inform the public regularly and in a targeted way about environmental protection within the Vaillant Group. Interested parties may obtain additional information if they so desire.

HEALTH & SAFETY POLICY

► Customer orientation

The Vaillant Group is committed to a comprehensive approach towards Health & Safety. On the basis of consistent legal compliance we strive to exceed the demands of national and European legislation.

► Health & Safety responsibility

Everybody has a duty of care for Health & Safety with regard to avoiding incidents, accidents and possible risks to health. The Vaillant Group expects staff to act as role models and to communicate Health & Safety requirements to all others.

► Continuous improvement

The Vaillant Group will continuously monitor and identify Health & Safety concerns and work to minimise them.

► Employees

Vaillant Group risk analyses are carried out in order to manage and minimise the risks due to equipment, processes and products for its employees. Vaillant employee management gives all employees the knowledge they need to support the organisation in the implementation of its Health & Safety Policy.

► Sustainability

The Vaillant Group will provide the means and management for all its employees to ensure a high Health & Safety standard is achieved. All employees and managers have an obligation to work continuously to improve Health & Safety.

► Social responsibility

The Vaillant Group recognises its social responsibility for all employees. Information and indicators to evaluate the Health & Safety performance will be communicated regularly to all interested parties.



Simple, efficient and target-oriented: Dr Markus Scheffer, Director Vaillant Group Business Processes, explains the system of our process management.

Sustainable – thanks to processes!

They describe the way things should be done: process descriptions. Who does what, when and how. It's all there in black and white. That may sound like petty-minded rules and unnecessary complexity, but it isn't. Why? Because it's the only way to make sure that customers receive the standards and quality they expect from the Vaillant Group's brands.

"Only Group-wide processes define standards that lay the foundation for making sustainability so very integral," says Dr Markus Scheffer, Director Vaillant Group Business Processes. "We want to create processes in such a way that they support us in achieving profitable, sustainable growth, while being simple and efficient. That's why it's important to look at processes across the board." The task is complex. After all, these processes guide the way more than 12,000 employees work together, beyond departmental and national borders – and create a Group-wide, uniform standard.

Processes break the principle of sustainability down and make it practicable right down to the smallest detail. Not only technical and economic criteria are decisive when choosing materials, but

also the question of how they were manufactured and their degradability. It's important to answer these questions early on, no matter where they arise, whether it's in development, production, purchasing... As a result, processes set the individual measures in our daily work with sustainability in mind. They tell us who's responsible and they demand recurring review.

Well-coordinated processes are intended to make work easier and more efficient. The goal is always ensuring improved quality and sustainability, no matter how large or small the task. "There are individual key processes that are elementary because they start and end with the customer. Therefore, they run through the entire company. We call these end-to-end processes," explains Scheffer. From the customer to the customer.



The Group processes GDP, GPP and GMP accompany our products from start to finish – from customer-centred development to manufacturing at the company and up to the end of the product life cycle. There's a lot of sustainability lurking behind these acronyms, which help guarantee environmental protection and resource conservation.



GDP – Group Development Process

The Vaillant Group keeps in mind the product life cycle in its entirety when developing products – right through to how they will be recycled. New products are designed for resource-efficient manufacturing, a fact that's even reflected in our choice of materials. This is how we make sure that a Vaillant wall-hung condensing boiler is up to 99.8 per cent recyclable.



GPP – Group Production Process

Our products meet Vaillant Group standards in terms of quality and sustainability. To ensure this, we have formulated simple, standard and clear descriptions of our production processes. GPP covers all of our operations: from planning to purchasing and manufacturing, through to shipping and consignment. It means that everything goes off without a hitch – perfectly, smoothly and safely, both for our employees and the environment.



GMP – Group Market Process

For the Vaillant Group, efficiency is much more than a selling point. Instead, it is a promise that we live up to. For this reason, our service doesn't just stop at the sale. Around 4,000 service staff and our trade partners – whom we train regularly – offer sustainable, top-quality service performance that is quick, competent and reliable. Their work makes sure that our products maintain the highest levels of efficiency over their product life cycle – and maximum environmental benefits.

SUSTAINABILITY IN ACTION

Vaillant GmbH
Deutschlands nachhaltigstes Produkt 2011

deutscher
nachhaltigkeitspreis

Sustainability management at the Vaillant Group is built around four fields of focus: development & products, environment, employees and society. On the following pages, we will present to you these fields specifically and in detail. We'll show you what measures we're taking to reach our sustainability goals, what we've managed to do and what we're working on. Get to know projects and people, some of our employees as well as the indicators we use to measure our commitment to sustainability and take a critical look at ourselves.

Questions or comments?
Then write to us at sustainability@vaillant.de



DEVELOPMENT & PRODUCTS



research and development projects are underway at the Vaillant Group right now. More than 50 new projects were launched in 2011 alone. All of them aim to discover even more innovative and efficient forms of technology.



Three questions for...Andreas Lücke, General Executive Manager, Federal Industry Association of Germany for House, Energy and Environmental Technology (BDH)

How do you see your industry making a difference in the fight against climate change?

► The industry's contribution could be decisive, also when it comes to effectively planning the energy revolution. Fact is: the construction sector is the largest energy consumer in European business, generating 40 per cent of all emissions, and so coming in ahead of industry and transport. In the building sector alone, 85 per cent of natural gas consumption derives from heating buildings and water.

The title of BDH's strategy is "Efficiency and renewable energies". Could you explain to us what that means?

► BDH is involved in efforts to bring a combination of highly efficient technologies and renewable energy onto the market and to boost its presence there. In view of the fact that existing plants and systems are out of date, BDH is also pushing for modernisation of those plants to move twice as fast – and for a stable funding regime. This would be in line with climate change targets and lower energy costs, and would create jobs.

Which technologies promise to deliver the most in this regard?

► In the heat generation area alone, we can offer a wide array of highly efficient systems: condensing boiler technology powered by gas or oil; wood-fired boilers run on pellets, firewood or wood chips; CHP technology; and heat pumps. Additionally, all of these systems can be combined with solar heating for water and buildings.



Heating technology: a potent trump card

Energy is precious. But we often end up wasting it – especially thermal energy. It's time to change things. The Vaillant Group is working to solve the problem with highly efficient and innovative products.

There's huge potential to make savings, protecting the environment and conserving resources. More than 40 per cent of primary energy consumed in the European Union is used in and for buildings. And the lion's share of that (a staggering 85 per cent, in fact) is spent keeping buildings warm and generating warm water.

If all of the old heating systems in Europe were to be replaced with highly efficient technologies, this measure alone would result in reductions in energy consumption of more than 30 per cent – and similar cuts to CO₂ emissions. Combined with renewable energy sources (such as solar energy), we could reduce CO₂ emissions even more markedly.

This means that efficient heating technology is our biggest trump card when it comes to protecting the

environment and achieving the European Union's climate targets. By 2020, renewable energy sources are set to generate 20 per cent of European energy needs. Compared to the year 1990, this will result in 20 per cent less greenhouse gas emissions being released. Plans are that energy consumption will be reduced by 20 per cent through greater efficiency.

And this is precisely where the Vaillant Group, one of the world's leading manufacturers of environmentally sound heating and air conditioning technology, has got involved. The company focuses on products and systems that use regenerative energy, highly efficient innovations such as condensing boiler technology and CHP, and hybrid systems. The latter combine renewable energy with heating appliances based on fossil fuel sources, resulting in highly efficient and intelligent systems.



Won, but not yet at the finish line

Vaillant won the German Sustainability Award in 2011 for its ecoPOWER 1.0 combined heat and power (CHP) system. The path to the accolade was long and laborious – and it isn't over yet. There's still plenty more untapped potential in CHP technology.

CEO Dr Carsten Voigtländer, couldn't disguise his joy. When accepting the German Sustainability Award for ecoPOWER 1.0 on 4 November 2011, he extended his thanks to the Vaillant Group's employees: "The German Sustainability Award means a lot to us. It recognises the contribution made by all our 12,000 employees." A prestigious panel of experts named the ecoPOWER 1.0 CHP system Germany's most sustainable product.

The expert body was particularly impressed by the technology's high degree of effectiveness. While more than half of the energy generated by conventional power plants is lost as waste heat, the domestic power generation system produces environmentally friendly, highly efficient heat and electricity in your home's basement. That doesn't just cut heating and energy bills. Rather, it also

cuts CO₂ emissions by up to 50 per cent under ideal conditions. As a result, decentralised CHP technology is an important element of forward-looking energy generation.

"We really started from scratch here," recalls Product Manager Claudia Altenrath. Working with engine partner Honda, Vaillant developers built Europe's first CHP system designed for single- and dual-family homes. Along the way, they had to come to grips with several technical challenges. Although the Honda motor functioned in Japanese CHP systems, it did so under completely different installation conditions.

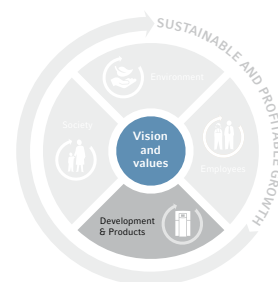
As a result, Vaillant engineers developed their own heat recovery module and system controller. "Via surveys, we tried to find out what customers were



01 ► The thrill of victory:
Dr Carsten Voigtländer (centre), CEO of the Vaillant Group, receiving the German Sustainability Award.

02 ► The look of a winner:
The ecoPOWER 1.0 CHP system won first prize in the category "Germany's most sustainable products/services".

02



after," says Altenrath, who – as ecoPOWER 1.0 Product Manager – was a sounding board for both development and marketing. "The most important factor was that customers wanted the product. The field trials turned up huge demand. And this held up impressively after the market launch."

The micro-CHP designed for domestic basements was unveiled at the ISH 2011, Germany's largest heating technology trade fair. "That moment you see what you've created together really does make you just a little bit proud," says Claudia Altenrath. As a Product Manager, she's also a problem solver. "Not everything the market wants is technically feasible. And not everything developers like will catch on in the marketplace." Working with project participants, Altenrath created an excellent solution for Vaillant's customers – ecoPOWER 1.0. And she's still on the lookout for further improvements: "When we launched the product, we only offered the full system with a hot-water storage tank and gas-condensing boiler. But we're currently working on incorporating ecoPOWER 1.0 into existing systems, which would make it more appealing to an even wider spectrum of customers."

Sustainability Award winner ecoPOWER 1.0 is just one model in a range of Vaillant CHP units. In addition to its smallest CHP systems, the Remscheid-based heating technology specialist also offers ecoPOWER with energy parameters of 3.0, 4.7 and 20.0 – all depending on the customer's heating and electricity needs. The largest model in the series, designated "20.0", was showcased at the industry trade fair SHK 2012 in March. It services larger buildings' power demand.

Alongside the growing Vaillant ecoPOWER family, the Group is pressing on with the development of fuel cell technology. In January 2012, the first wall-hung fuel cell heating system was officially put into operation as part of a comprehensive field test. "For us, the start of this field trial represents an important step forward in the on-going development of this innovative technology," says Managing Director Technology Dr Carsten Stelzer. "The German Sustainability Award was a great honour. But we won't be resting on our laurels as a result. Rather, it provides us with an incentive to keep following the path we've been on – to keep learning and continue evolving." The company is on a journey towards further sustainable, energy-efficient products.



On the path to the future

The Vaillant Group's product portfolio offers a range of solutions for the perfect heating appliance – from highly efficient condensing boilers to solar collectors that trap the sun's rays at zero emissions and no charge, through to heat pumps that make use of the ground's energy. These are products that will be ideal today, tomorrow and well into the future.

What will tomorrow's perfect heating appliance look like? The Vaillant Group has several answers to this question. Because the future has a lot of possibilities in store. "The market is going through some big changes," says Jean-Louis Barillon, who is responsible for programme management. Requirements are changing – and demands vary hugely in Shanghai or Birmingham, St. Petersburg or Seville. A number of factors play a role, including the local climate and building stock, the availability of resources, the legal framework and political will – and, at the end of the day, sheer custom and habit.

Efficiency

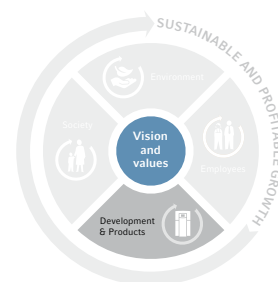
"Our aim is promoting the company's sustainability," says Barillon. "We want to – and must – prove

our capacity for innovation in order to set ourselves up for the future." Flagship products, such as the Zeolith zeoTHERM gas heat pump and the ecoPOWER family of micro-CHP systems, are part of all this.

"We need to build bridges on the path to the future of renewable energy." Without a doubt, this refers to the use of gas – the use of which is being scaled back step by step through innovative, ever more efficient heating systems. "So our strategy is efficiency, systems and renewable energy," concludes Barillon. "At the moment, devices featuring condensing heat technology dominate the market – they have a substantial efficiency edge on non-condensing devices."



Our product portfolio is wide ranging and offers custom-tailored solutions for nearly every demand.



Systems

However, well-coordinated, synced-up systems that can also use renewable energy will be at the cutting edge of technology in the future. As such, maintaining intelligent control over all of their components will become more and more crucial. Ultimately, the aim is to ensure that efficient individual components operate together as effectively as possible. "This will also involve a control system that can be intuitively operated, one that is in line with the most modern usability standards. We are working hard on that," says Barillon. As a result, even today customers can change the settings on their ecoPOWER micro-CHP systems from the comfort of their sofa using an iPad – so that the system fits in comfortably with their everyday routine.

The system's approach also allows it to meet the needs of customers better. An optimal heating system can be assembled from the Vaillant Group's product portfolio for each and every customer, depending on their installation requirements and their individual lifestyle.

Renewable energy

"Securing your independence from rising energy costs will also become more important in the long term," says Barillon. Products that are less reliant on finite energy sources and more reliant on renewables will capture the lion's share of the market: heat pumps that use the energy trapped in the ground, fuel cell heating appliances that generate CO₂-neutral heat, photovoltaic and solar-thermal collectors that harness the sun's power, ventilation systems delivering constantly pleasant ambient temperatures in optimised zero-energy houses...

The future has a lot of possibilities in store for us – and so does the Vaillant Group's product portfolio. It's already available today for tomorrow and well into the future.



 **callux** (nip)
Praxistest Brennstoffzelle fürs Eigenheim

A better way

Throughout the Group, more than 600 employees work on research and development. Their aim is to make our products even better – and to take our technology a few steps further down the road. During the year covered by the report, the Vaillant Group employees were rewarded for their efforts. Here, you can find out more about just a few of our successes and breakthroughs.

Fuel cell heating wins the race

The very first wall-hung fuel cell heating system went into operation on 27 January 2012. Its installation occurred as part of the “Callux” field test, which is being supported by the German federal government. “This represents a milestone in the further development of this innovative form of energy,” said Managing Director Technology Dr Carsten Stelzer at the joint commissioning, which was held in conjunction with energy provider EnBW in Bruchsal near Karlsruhe. “Fuel cell technology has huge potential – it can make a decisive contribution to delivering the sustainable energy supply of the future,” Stelzer continued. The fuel cell heating appliance simultaneously generates 1 kilowatt of power and 2 kilowatts of heat. At

its heart is a high-temperature fuel cell that taps natural gas for hydrogen. A resulting reaction of hydrogen and oxygen generates thermal energy and direct current. In this way, the fuel cell heating system chalks up even greater efficiency ratings than the current standard CHP units with internal combustion engines. As part of Callux, Vaillant will test some 120 appliances featuring this new technology by 2013.

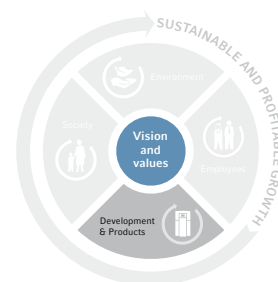
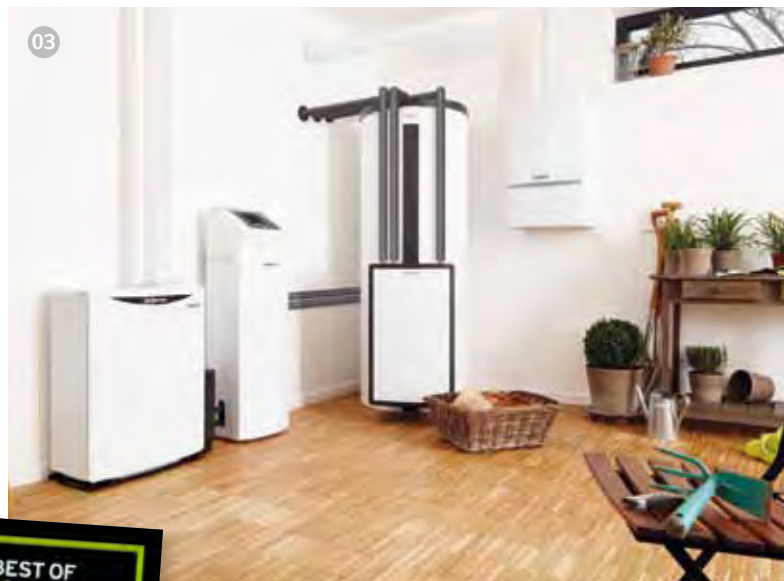
Callux is the largest nationwide field trial of domestic fuel cell heating appliances in Germany to date. Partners from the heating appliance and energy industries – with backing from the Federal Ministry of Transport, Building and Urban Development – are funding the project.



01 ► Fuel cell technology harbours great potential. The first wall-hung fuel cell heating system from Vaillant is a milestone in its development.

02 ► The Glow-worm Clearly Hybrid has been named "Green Innovation of the Year". Intelligent control connects the air-water heat pump with a high-efficiency gas burner.

03 ► Repeat offender: The ecoPOWER 1.0 CHP system has once again been named "Most sustainable product" – this time, by industry experts, the readers of trade magazine "Si Informationen".



Renewables Awards

Glow-worm Clearly Hybrid is "Green Innovation of the Year"

Although it has just hit the market, the Glow-worm hybrid system has already garnered some big accolades. The system, which combines an air-water heat pump with a highly efficient Ultracom2 brand gas burner, was named the "Green Innovation of the Year" at the British Renewables Awards in September 2011. The jury praised the package as a whole. "Clearly Hybrid offers both CO₂ emission and cost savings through a highly innovative system that makes technology based on renewable energy available to an increasingly broader public." Depending on what is in use at the time, Clearly Hybrid switches automatically between a five-kilowatt air-water heat pump and a gas burner – the user doesn't have to lift a finger. This allows the system to cut CO₂ emissions by 40 per cent while reducing the cost of energy. Clearly Hybrid had already received a "highly recommended" rating at the National Heat Pump Awards in June 2011.

ecoPOWER 1.0 – once again the "most sustainable product"

The ecoPOWER 1.0 micro-combined heat and power system (CHP) is the most sustainable product in the plumbing, heating and air conditioning industry. Based on the combined heat and power cycle, the system generates environmentally-friendly, highly efficient heat and power directly where consumed. Vaillant was presented with the "Best of SHK" award in the Sustainability category at a prize-giving ceremony. The event took place in Essen during the SHK trade fair for sanitation, heating, air conditioning and renewable energies. Initiator is trade magazine "Si Informationen". "We are very happy about this award because it was given by insiders with great practical relevance," said Dr Jens Wichtermann, Director Corporate Communications & Sustainability Management, Vaillant Group. "The way the readers – whose ranks include our customers – voted makes it clear how important decentralised CHP is for sustainable energy generation in Germany."

ENVIRONMENT



71

tonnes of CO₂ are saved every year at the Remscheid site thanks to an alternative technique for testing gas valves. Instead of relying on gas, the company tests the durability of new parts using compressed air. The savings made per durability test are enough to fly roughly 530 times from Paris to London.



Three questions for...Klaus Milke, Chairman of the Board at Germanwatch e.V.

Mr Milke, in which fields of environmental protection and resource conservation do you think a company like the Vaillant Group has to do its bit?

► Companies should play a proactive role in resource conservation and environmental protection. In practising environmental responsibility, it is essential to find an intelligent balance between initiative and obligation. That being said, I think that Vaillant and its products can make an especially constructive contribution to climate protection and ensuring higher levels of energy security during the energy transition.

Do you think that the (German) industry is on the right track?

► Economically powerful Germany also boasts a strong civil society. And in view of its energy transition and its nuclear phase-out, the industrial transformation that's going on could see Germany possibly ending up as an engine of change in the EU. It might even take on a very special responsibility in the world at large. The electrical, energy and heating industries see great potential for them in this area.

Do further changes have to be made to the regulatory environment?

► Given the scarcity of resources, politicians have to put in place clear limits and set boundaries – preferably on a global scale. But it's great when economic players call for the right kind of intelligent regulations: it puts a stop to free-riding and makes politicians get a move on.



Clean, safe, transparent

The Vaillant Group fleet depot at the Remscheid site has a photovoltaic system on its roof generating clean solar energy. This allows for efficiency testing under non-ideal conditions – and the Vaillant's electric vehicles' aptitude for energy storage is also being probed.

There are a number of advantages to the photovoltaic systems that have been in place on both roofs of the Remscheid fleet depot since June 2011: clean energy, a good security model and efficiency you can see.

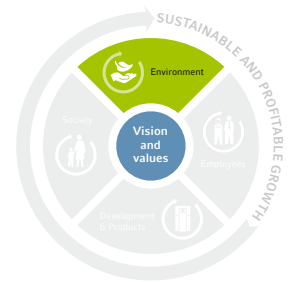
The system delivers emission-free energy, which is then fed into the public power grid. At the same time, our goal is to run the in-house Vaillant electric cars in a CO₂ neutral way. Ultimately, the Vaillant Group wants to set a good example as a matter of course. It wants to put the innovative and sustainable technologies it has developed to the test on behalf of its customers, and put them to use at a company site.

Additionally, the system is a very safe bet – even for firefighters. Vaillant worked closely with Remscheid's professional fire department when it was installing the system. This means that the system doesn't pose a danger in case of an emergency. All switches and security settings – plus the inverter – are located on the outside of the building. As

such, they are accessible at any time. If necessary, the entire energy system can be quickly and safely released and then short-circuited.

The two large generator fields – which take up a total of 240 square metres and feature 178 photovoltaic modules – deliver enough energy to meet the needs of four families. The roofs slope south-southwest and north-northwest respectively. This is hardly ideal. "In the past, we didn't have much data or experience about the efficiency of systems that weren't aligned favourably. So we often advised customers against installing systems if the circumstances weren't ideal," says Andreas Christmann, Head of Products and Marketing at Vaillant Deutschland.

Now, the rooftop units at this site will have their efficiency tested in an in-house experiment. The energy yield of the thin film modules that have been installed on the north-facing roof will be especially closely monitored. The results of the long-term test will be updated live online. Very openly and transparently: <http://bit.ly/pv-vaillant>





Knowledge gives you a head start

Hundreds of figures, dozens of quantities, one goal. In a project, a team at the Vaillant Group plant in Nantes worked out how much greenhouse gases their site released – from purchasing through to production, from the portfolio's use by the customer to the end of the life cycle. First and foremost, the project's results aimed at one thing: helping to cut down CO₂ emissions – and diminishing the plant's ecological footprint as a result.

"It's simply an amazing tool," says Benjamin Rondeau, Manager for Occupational Safety and Environmental Issues at the Nantes plant. "It's been really helpful for finding out where we can get to work." Rondeau is describing a programme developed by the French Ministry of the Environment that determines companies' CO₂ emissions.

For six months, the team – comprised of different departments at the plant, such as Production, Research & Development, Purchasing, Logistics, and Human Resources – worked on the study. They delved into figures from the year 2009, for which complete data was available. "An expert team from DEKRA helped us in this. In cooperation with the

management, we set the parameters." Everything was included: buildings, inbound and outbound vehicles, employees' own transportation and customers' use of the plant's products. The ministry's Excel-based tool asked for hundreds of different figures and converted those numbers to CO₂.

"The results were not really a big surprise: 97 per cent of CO₂ emissions derive from customers' use of our products. As a result, Research & Development and Marketing must do their part by developing devices that are even more energy-efficient," explains team manager Rondeau. However: "It may well be that the rest of the value creation chain can influence just under three per cent of the equa-

01



01 ► The carbon footprint makes it clear how much CO₂ is associated with a production site, a specific product or service.

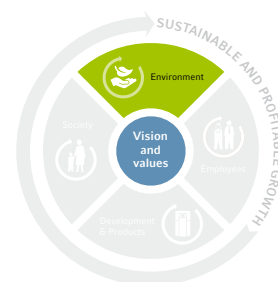
02 ► Looking at things in their entirety: The team took a closer look at the Nantes plant and improved its energy efficiency. To be continued...

02



A carbon footprint reading will again be conducted at the Nantes plant in 2012. Since the last study, French lawmakers have made it mandatory for all companies with more than 500 employees to conduct the test. Nantes will benefit from the fact that it already carried out a reading in 2010. Because the team already has the necessary know-how at its fingertips, the test will run more smoothly this time around.

Preparations for the introduction of ISO standard 14001 were the trigger for the 2010 study. Environmental and workplace safety expert Rondeau believes the analysis has delivered valuable hints on how to reduce CO₂ emissions. "We would like to raise all of our employees' awareness about issues surrounding greenhouse gases and climate protection. For this reason, we'd like to provide them with an extensive briefing on the topic," says Rondeau. The project was a success – and Rondeau wholeheartedly recommends that his colleagues overseas try out this French tool. After all, knowledge gives you a head start.



tion. But that would represent three per cent of an annual output of around 1,645,000 tonnes of CO₂." This still means an output of 45,000 tonnes of CO₂ every year. By way of comparison: 45,000 tonnes of CO₂ would be enough to fly someone from Paris to New York and back – more than 11,500 times. That is enough to prompt action.

This action takes the form of a series of measures. In 2011, a new 2,000-square-metre roof was installed. The roof is optimally insulated and contains translucent panels, ensuring that the plant benefits from natural light. Meanwhile, 300 metres of the plant's exterior were insulated with mineral wool. The hot water for the washrooms is generated by a solar thermal system. And the heating system for a space of more than 4,000 square metres now runs on renewable energy, thanks to four highly efficient ecoCRAFT condensing boilers. Replacing the heat generator alone saves 530 megawatts of energy and 100 tonnes of CO₂ annually.

Carbon footprint

Everything we do has an impact on the climate. The carbon footprint tool is intended to provide a base for measuring various influences on the climate. It maps emissions for individuals, organisations, production sites and products. This ecological footprint measurement reveals the climate repercussions of specific products or companies. In doing so, it takes into consideration a given site's, product's or service's combined value creation chain – from the extraction of raw materials via production, transport, retail and consumption, through to recycling and disposal. Whenever possible, all direct and indirect emissions of climate-adverse greenhouse gases are included in the calculation and identified as CO₂ equivalents. However, there is still no universally recognised technique for determining product carbon footprints.



01 ► The German Consumers Initiative has recognised Vaillant for its commitment to sustainability.

02 ► Jozef Pavlus, Head of Quality in Trenčín (left) and Dr Radovan Pristavok, Head of the Vaillant Group plant in Trenčín, received the Slovak Office of Standards, Metrology and Testing's national award for quality standards.

03 ► Inner and outer beauty: The new offices in Belper, UK, not only look modern, they're also equipped and furnished according to the latest efficiency standards.

04 ► Still standing: The 2011 Sustainability Report is printed on 100 per cent recycled paper.

Because we think ahead

We know just how important it is to make careful use of energy, protect the environment and avoid squandering resources. For that reason, we initiated many large and small projects to clean up our own backyard in 2011, improving energy efficiency in our company buildings and in manufacturing.

Vaillant chosen as "Sustainable Manufacturer 2011"

Vaillant has been praised for its commitment to sustainability by the German Consumers Initiative. For the next two years, Vaillant will be able to display a "Sustainable Manufacturer 2011" seal in bronze. The non-profit organisation took a close look at the social and environmental activities of six manufacturing companies in the six highest revenue sectors. A checklist comprising around 350 different categories formed the basis of the assessment. Industry by industry, the evaluation covered all stages of the supply chain – from resource extraction to production, transport and waste disposal. A total of 1,300 manufacturing companies took part in the survey and 33 businesses were awarded one of the much sought-after prizes. The awards are designed to help consumers select products manufactured according to principles of sustainability by companies that have proved they operate responsibly.

Prize-winning sustainability efforts in Trenčín

The Vaillant Group's Trenčín plant won the Slovak Office of Standards, Metrology and Testing's national award for quality standards in November 2011. In addition, the plant was commended for being a particularly operationally secure site, receiving a "Safe Enterprise" certificate. The national industry inspectorate honoured the site's very effective occupational health and safety and fire prevention regime, which has been implemented for the long term, as well as an environmental protection system. In 2011, a comprehensive scheme for reducing CO₂ emissions was introduced. Four separate control units ensure that lighting systems are efficiently operated, saving 32 tonnes of CO₂ annually. Solar systems on top of the buildings deliver clean energy, cutting CO₂ emissions by 30 tonnes per year. Waste heat produced by compressors during manufacturing are used to heat the building,





leading to 32 fewer tonnes of CO₂ annually. The design will be introduced in other buildings in 2011 and further measures have already been drafted.

New and good: the administration building in Belper

The facade might date back to the 1960s, but everything else is brand new – and designed to be sustainable. A ceremony in November 2011 marked the official opening of the new administration centre in the English town of Belper. The building will house offices, exhibition and training spaces plus a cafeteria. Light and expansive, the offices don't just create a convivial work environment. Rather, they show how the Vaillant Group's products operate in the field. A Vaillant geoTHERM ground source heat pump supplies the bulk of the buildings' heat, supported by a Glow-worm air-water heat pump. Waste energy produced by the canteen and the training rooms is used to heat employee offices. A solar thermal system delivers hot water while photovoltaic modules cater for clean energy. Rain-water is collected and filtered via the roof greenery. So the new Northern European HQ is a model resource saver.

A sustainability report that truly deserves the name

Maybe you haven't noticed it yet, but sustainability isn't just a word in the title and on the pages of this report. The print version of this sustainability report has also been produced sustainably using every method known in the printing arts. Its paper is made from 100 per cent recycled material and has been certified with both the EU Ecolabel and the FSC® seal. All dyes, inks and other materials used, such as the printing plates, are based on renewable raw materials and/or are recyclable and were sourced from certified manufacturers. By replacing the UV spot coating used last year, with blind embossing we have also been able to optimise the cover's finishing from an environmental point of view. Our printing partner uses green electricity and waste heat from the printing machines to keep its offices warm. Additionally, we are making increased use of the Internet to distribute this report, thereby reducing the number of printed copies. By releasing a compact, abridged sustainability brochure that directly addresses our customers' interests, we are saving additional resources. And whatever CO₂ we create by producing this report, we compensate via certified programmes.

EMPLOYEES



1,400

seminars and training sessions per year provide avenues for employees from all company departments to develop their potential – and to harness existing capabilities. It's a forward-looking investment in our most important asset.



Three questions for...Dr Günther Bachmann, General Secretary of the German Council for Sustainable Development

You have described employees as having “unharnessed potential for sustainability strategies”. What do you mean by that?

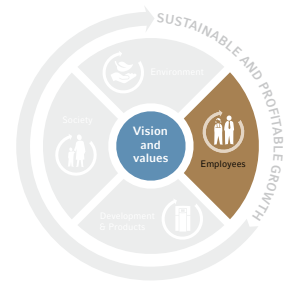
► Employees have only just begun to actively participate. Responsibility and individual initiative is required across the board. That doesn't work when people achieve things in isolation. Instead, we need to motivate as many people as possible. At the end of the day, participation opens up space for creativity and increases people's willingness to act. Neither calls for action nor compulsion can really make people get involved.

So how can we get employees involved?

► “How” can take many different guises. It really relates back to what you might call “stakeholder involvement”: surveys, consultation with staff, joint decisions on the important challenges of the future. However, you might also consider coming up with some in-house projects. These could include a sustainability charter, involving staff in public debates, creating a sustainability platform so that people can swap stories, agreeing on procurement guidelines, competitions, bonus payments...and that's just the beginning. A lot is possible.

How much does sustainability play into a company's appeal as a potential employer?

► It doesn't play as much of a role as it should. However, it is gradually becoming more important. And I'm really pleased that it is. People doing professional, skilled work want to earn good money – but they also want to make a difference.



S.E.E.D.S. Award for employees

A company can only work thanks to its employees. And a company can only act sustainably with the help of its employees. That's why the Vaillant Group has created its own sustainability prize: the S.E.E.D.S. Award.

“How sustainable are we in the Vaillant Group?” That's the question we asked when we announced the first ever S.E.E.D.S. Award. Forty teams and individuals came up with answers to this question and sent in their ideas and projects. Picking a winner in the S.E.E.D.S. fields (environment, employees, development & products and society) was no easy task for the jury. The panel included several top managers, in addition to Dr Carsten Voigtländer, CEO of the Vaillant Group, and Dr Carsten Stelzer, Managing Director Technology.

The S.E.E.D.S. Award was created to increase the employees' awareness of sustainability and to give them an opportunity to make an active difference in the subject. This competition does justice to the fact that sustainability can only work if employees contribute their ideas to the effort to act sustainably. The award was announced for the first time in 2011 and the winners were chosen in February 2012.

In the field development & products, a team won with a project on high-efficiency heat cells. In the employees' field of focus, a project in our site in Skalica, Slovakia, won for efforts geared towards employee health and safety. Thanks to this project, the number of on-the-job accidents fell to zero in 2011. A school project from Sales Germany won the prize in the society field of focus. The environmental programme in Trenčín received the award in the environment field. Using a wide range of measures, the team there managed to reduce CO₂ output by 258 tonnes per year.

In addition to the four prize winners, the jury awarded two special prizes: one for the integrated sustainability programme at our site in Belper, UK, and one for the “Next Generation” training team in Istanbul, which has dedicated itself to young people with a selection of training programmes. These two projects covered more than one area, were highly successful and absolutely worthy of a prize.

The S.E.E.D.S. Award is granted every two years.



Because it's a matter of course

An open, inspiring conversation: at a meeting of the Vaillant Group's top 30 managers, three young employees told us what's important to them and about the role of sustainability in their lives. Oliver Nehring, responsible for eastern European markets, put the subject on the agenda of his executive meeting.

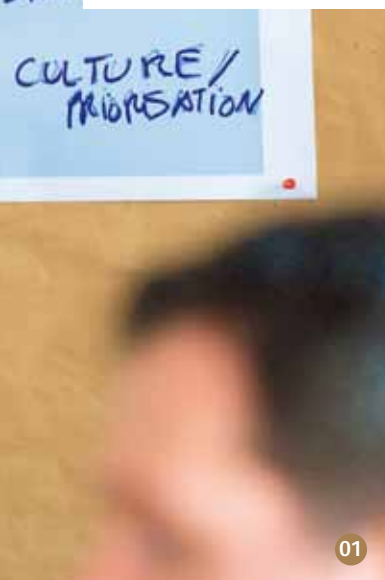
"It's important to me to work for a company that declares its support for acting sustainably, looks for balance between the demands of today's market, and takes the challenges of the future into account today," says Paul McConaghie, a production engineer at our UK site in Belper. The 26-year-old was invited to the sustainability conference of the Vaillant Group's 30 top decision-makers along with Caroline Mathiaud, Human Resources Nantes, and Lars Heinen, Technology Scouting Remscheid. At the conference, the three young employees presented their idea of good, sustainable corporate governance and their expectations of the top managers. Paul McConaghie sums it up: "My vision of a sustainable company is that all Vaillant Group plants and office buildings exclusively use our own products – ones that use renewable energy and are made entirely from environmentally friendly materi-

als in a sustainable production process. And all that in connection with responsibility to society and staff." Resting on laurels, such as reducing landfill waste to zero in Belper, isn't enough in his opinion. The approach must be thought through further, from suppliers to product packaging.

"The three of them did a very good job. Their fresh and sometimes critical take on things is highly valuable," praises Oliver Nehring, responsible for eastern European markets in the Czech Republic, Hungary, Poland, Romania, Russia, Slovakia and Ukraine. He listened intently and could identify with the topics and the speakers. "We have three children ourselves, so this point of view isn't entirely unfamiliar. Based on many conversations with students and young potential employees, I know how important it is to them to work for a company that does sustainable business."



02



01

01 ► On the agenda: Eastern Europe Manager Oliver Nehring took a strategic approach to sustainability following the Top 30 meeting.

02 ► Paul McConaghie provided important inspiration on what young people expect from a sustainable employer.

For Nehring, the meeting proved inspiring. "The discussion made clear how important it is to look at the subject of sustainability in a strategic manner. It was a sort of initial inspiration to do things that way." The agenda for the following Executive Committee (ExCo) meeting also contained sustainability issues. The heads of the eastern European markets worked out an idea pool in cooperation with the Sustainability Management department on how to fill the four S.E.E.D.S. fields of focus (environment, employees, development & products, society) with life.

Based on this store of ideas, they chose the ones they would realise in their areas. The implementation has already begun. Among other immediate measures, a waste reduction programme is slated for 2012. Starting in 2013, the goal will be pushing ahead with the expansion of the HR Academy's ongoing internal training platform. The long-term measures include a technology know-how transfer for installers who fit renewable-energy devices, which is on the agenda for 2015.

Nehring knows how important the offers are for employees, in particular. "Employees in eastern

Europe greatly appreciate advanced training. When looking for good female employees and keeping them on board, we also had a great deal of success in our Slovakian plants by cooperating with child-care centres." Our commitment to our employees is paying off: they appreciate reliable employers of integrity. That's why the country managers for the Czech Republic, Hungary and Ukraine have also been placing offers for continued development and education high on their to-do lists, along with ideas such as flexible working hours or energy efficiency consulting for employee homes in Hungary, Romania and Russia.

"I believe in the managers' initiative. And I regularly ask how things are going, of course," says Oliver Nehring. Project implementation is also set to be part of the individual target agreements. These make achieving sustainability targets directly relevant to managerial pay. But their own convictions are an even greater motivation. "Talking to the country managers was like preaching to the converted: all of them were very open towards the initiative." They share a passion for the company's goals and are open to new ideas.

Just like the Vaillant Group's top managers were open to the three young employees' ideas and suggestions. For Paul McConaghie and his colleagues, the discussion with top management was a big experience in and of itself. "The most interesting aspect for me was that we young employees were allowed to present our views directly, without immediately having to answer questions. That made it possible for us to say what we thought was important openly, honestly and uninhibitedly."



01 ► Close contact: Together with their little ones, mothers on maternity leave met in Remscheid. HR invited them to share their tips on returning to work with a family.

02 ► Counteracting: At one seminar, employees learned how to counteract on-the-job stress.

03 ► Employees at our Slovak plant in Skalica have a safe job: not one on-the-job accident there in 2011.

04 ► Employees at our French plant in Nantes got to work promoting employee health and well-being as part of the SORG project.



For a strong sense of community

We're about a very special kind of corporate culture: one that rests on the values of entrepreneurship, trust, integrity and passion. The company is committed to these values because our employees are the bedrock and the soul of the Vaillant Group. Their performance is what makes us soar. As a result, we are committed to supporting and nurturing individuals on the job.

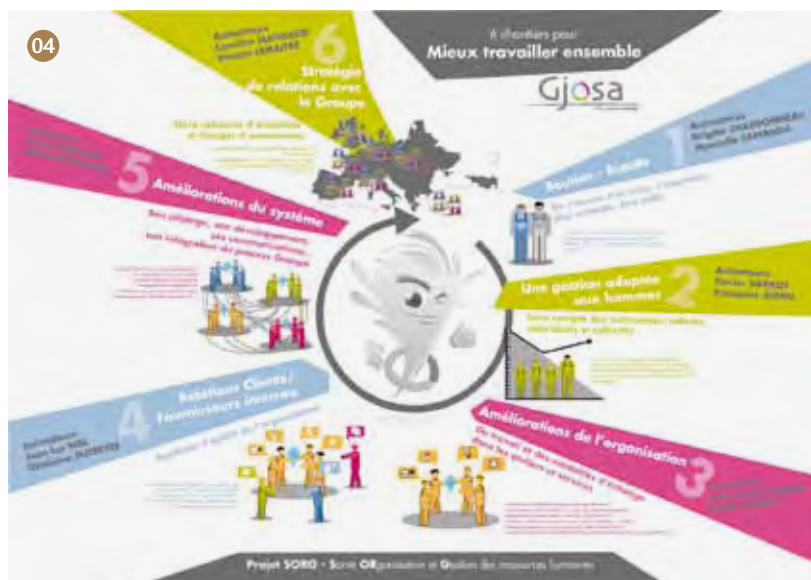
Maternity leave: let's keep in touch!

In March 2012, we launched the "Family Time" (German: "Elternzeit") staff retention programme. Its goal is to help us keep in contact with mothers and fathers who have chosen to take a break after the birth of their child. First and foremost, the programme aims to make their return to work a far easier process. At the first meeting, mothers on maternity leave swapped stories with others who had already returned to work, while childcare professionals minded their kids. Those who were back on the job discussed their experiences about returning to work. They also answered many questions from the mothers preparing to return to work. Working from home was the main talking point at the informal meet-up. In future, gatherings for parents on paternity and maternity leave will be held at regular intervals – and they will focus on various topics.

Targeted measures against on-the-job stress

A colleague was off sick. And the reason why was a bit of a shock for the team. Her diagnosis: burnout. For Frank Schlichthaber, Floor-Standing Heating Appliance Development Manager, the solution was plain and simple. "We have to raise awareness among our colleagues about the matter and let them know a few techniques for preventing it." In conjunction with Human Resources, the department picked out a suitable seminar on stress management. Over the course of several two-day seminars, a trainer helped all the members of the department really get down to the nuts and bolts of issues there. By the end of the seminars, each of the participants had come up with a specific plan for what he or she would like to change – and how. Management members had earlier been offered the chance to take part in workshops on burnout that aimed to help them detect symptoms better and earlier.

Stress, ease up!



Play it safe

Nothing is more important to us than the health of our employees. That's why occupational health and safety is such a high priority for the Group. At Slovakia's Skalica plant, a highly coordinated system has managed to reduce the number of on-the-job accidents to zero. Here, an all-encompassing checklist is used to conduct monthly checks at every workplace at the plant. Results are then published on the plant's intranet site. As soon as any department meets less than 95 per cent of the requirements, it is marked in red, measures are recommended and the monthly workplace safety meeting discusses what can be done. Along with the plant manager, executives from Production, Research & Development, QM and Manufacturing take part in the meeting. Any measures resulting from the meeting can be implemented and then tracked via an intranet tool.

A programme to encourage, support and motivate

SORG is a project created as part of Gjosa, the French implementation of the S.E.E.D.S. programme, to address health, organisational and HR issues at the Vaillant Group site in Nantes, France. Its goal is improving motivation and morale while making a difference in employee relations. Plant management launched targeted measures in 2011 following 2010's survey phase conducted in conjunction with the Université de Nantes. A steering group was set up to manage the project. Since then, six work groups comprised of six to eight employees each have been formed to recommend measures aimed at improving cooperation between all members of staff, with a special emphasis on organisational, communication and leadership skills. The groups' ideas are set to be analysed, cultivated and implemented in 2012.

SOCIETY



80

per cent or more of our overall procurement in the future will be sourced from suppliers that have recognised the social and ecological principles contained in the UN Global Compact.



Three questions for...Dr Florian Wecker, management board member at the German Sustainability Awards Foundation

Dr Wecker, what added value does a strategic focus on social involvement deliver?

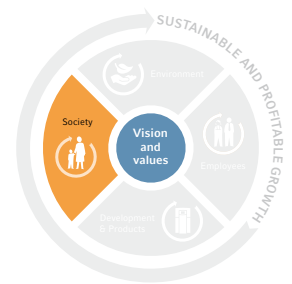
► A CSR strategy benefits everyone. It helps the company, because the decision-makers have a set of guidelines. It serves society too, because the company shows it is a reliable partner. Both of them gain, because targeted commitments are far more effective. Basically, companies would be well advised to ensure the appeal of the place where they are based. After all, their future success depends on it. Many companies already understand how important it is to work with local governments and civil society – and to follow a strategic approach in so doing.

How does a strategy help prevent “greenwashing”?

► A strategy defines a goal, and a good strategy also sets a series of milestones. When this is the case, the strategy becomes a way to measure corporate social commitment. First and foremost, the strategy sees to it that CSR is targeted.

How important for a CSR strategy is it that the company’s social involvement is closely related to its core business field?

► Credibility is the crucial catchword here. If a company gets socially involved in the field where it operates, it is simply more credible because of the company’s expertise. In addition, this commitment can then be communicated – which means it also benefits the company’s reputation.



CSR commitment meets strategy

The Vaillant Group has geared its corporate social responsibility commitment to a guideline. That’s new. But the firm’s dedication to social responsibility is not. Rather, it is a time-honoured tradition at the family-owned company.

It all began with company founder Johann Vaillant back in 1874. Showing responsibility for staff and the environment in which the company operates was always a given. The family-owned company has stuck with this principle for more than 138 years.

Corporate social responsibility (CSR) is one of the objectives of the S.E.E.D.S. sustainability programme, launched in 2011. That’s why we’ve now created a CSR guideline. A working group comprised of staff from around the world gave valuable input at a meeting of the Group’s top 30 managers. Although the policy paper applies on a Group-wide basis, local decision-makers have been given leeway to adapt its tenets to fit the individual needs of local communities. That’s because the Vaillant Group makes an active contribution where it operates – for social progress and the welfare of people.

Climate protection, energy efficiency and responsible resource use are the main priority areas of the

Vaillant Group. And it is also committed to these in its CSR guideline. Fact is: the Vaillant Group values the close proximity of these fields to its core business. In order to meet specific local needs, the new alignment also leaves room for the support of social projects that are particularly pressing at Vaillant Group locations. Our CSR guideline makes the Group’s commitment far more efficient by ensuring we consistently lend a hand in places where there is need and where we can help.

Our target groups are educational and social institutions, families and disaster victims. The Vaillant Group is putting its capacities to good use by donating energy-efficient products, by sharing its knowledge (in environmental education, for example) and through financial donations in the event of catastrophes.

Incidentally, the new direction does not mean that we are giving up existing partnerships – we want to stay true to our principles of sustainability here, too.



Time to do our duty

The Vaillant Group signed up to the United Nations Global Compact on 24 October 2011. Members pledge to base their actions and strategies on ten universally acknowledged principles relating to human rights, labour standards, environmental protection and anti-corruption measures.

“We’ll have to get ready for discussions as well and, if necessary, work on individual, specific solutions,” says Michaela Weinand, in charge of purchasing solar heat pumps and storages, and the Purchasing unit’s Global Compact officer. At the end of 2011, the Vaillant Group’s Purchasing staff contacted 407 suppliers to tell them that the

Group had signed up to the Global Compact. We would like to ask you to also express your support for the ten principles and, where necessary, carry out steps which can help improve shortcomings and problems.

Global Compact. This simple name stands for a truly huge ambition: to take on forced labour, child labour, corruption, infringements of human rights

and pollution. Over 7,000 companies around the world have taken up this struggle. In 1999, then UN Secretary-General Kofi Annan called on businesses to work for an economic system based on justice and to ensure that globalisation was to everyone’s benefit, both in the short and long terms. The central element of the Global Compact is a pledge which sees companies promise to adhere to ten universally acknowledged principles relating to human rights, labour standards, environmental protection and anti-corruption measures. By signing up to the compact, companies also extend these obligations to their staff and suppliers.

“We’re currently working on this,” says Weinand. The first step took the form of the Group’s letter to 407 business partners, which supply the Vaillant Group with 80 per cent of our purchases. “We feel





Act locally, make a difference globally: The Vaillant Group invited its key suppliers to Supplier Day in the Wuppertal Stadthalle. One of the topics on the agenda: the ten principles of the UN Global Compact and their place in the supply chain.

The Global Compact's ten principles

Human rights

- Principle no. 1:** Businesses should, support and respect the protection of internationally proclaimed human rights; and
- Principle no. 2:** make sure that they are not complicit in human rights abuses.

Labour

- Principle no. 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle no. 4:** the elimination of all forms of forced and compulsory labour;
- Principle no. 5:** the effective abolition of child labour; and
- Principle no. 6:** the elimination of discrimination in respect of employment and occupation.

Environment

- Principle no. 7:** Businesses should support a precautionary approach to environmental challenges;
- Principle no. 8:** undertake initiatives to promote greater environmental responsibility; and
- Principle no. 9:** encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

- Principle no. 10:** Businesses should work against corruption in all its forms, including extortion and bribery.



it is important that our Group's purchasers handle this contact. The relationship between them and our suppliers is one of trust, and the purchasers are the best people to judge specific situations."

By the time this report went to press in May 2012, a good 70 per cent of the companies we contacted stated that they would apply the Global Compact's core principles. "This is a good result, though it is of course not all we want to achieve," says Brigitte Kruse, Head of Sustainability Management. The remaining 30 per cent will receive a second letter from us: "Some of them are uncertain just what exactly the Global Compact's principles mean. These business partners need our clarifications and support." If this second letter goes unanswered, then it's up to the Vaillant Group to try another approach.

"If that happens, we'll sit down with the purchasers who deal with the supplier in question to identify what the problems might be and what we can do about them," says Kruse. "We really want to help our suppliers to address and tackle any challenges they might have. At the same time, it's obvious that we can't tolerate activities which violate human rights, entail forced labour or are associated with child labour."

If any company is found to contravene these three principles, the Vaillant Group applies the sanctions outlined in our guidelines regarding the Global Compact: we will remove this supplier from our portfolio. This will be our response even if it poses challenges for the Purchasing department.

As a result, adhering to the Global Compact's principles is one of the preconditions that apply when we are looking for new business partners. We bring them up when shortlisting suppliers and they are now part of our terms and conditions, which means that the suppliers responsible for the remaining 20 per cent of goods and services are required to confirm their adherence to the principles within the year. We also run regular audits to assess suppliers. "Most of the points were already on our list – we have always expected a lot from our suppliers. But the Global Compact's principles are now anchored more firmly in our system," says Weinand.

The Global Compact's international struggle has lots of local arenas – and lots of local tactics as well. As of now, the Vaillant Group will report annually on its implementation of the Global Compact's principles.



01



02

Tradition demands commitment. So does a future worth living in.

The Vaillant Group makes an active contribution where it operates. This is a time-honoured tradition dating back to company founder Johann Vaillant. We take our corporate responsibility very seriously. As a result, the past year has seen the company again support and sponsor new social and educational projects – while maintaining those that we have meanwhile been committed to for years.

Ten years of children's smiles

Vaillant Croatia has been sponsoring "Smiley", a children's theatre troupe, since 2001. Well-known actors appear in performances staged for different audiences of children throughout the country. The pieces advocate a positive demeanour and ecological awareness. In this way, "Smiley" aims both to educate and inform in an entertaining manner. The children's theatre troupe goes on tour every summer, visiting children's villages, crèches, kindergartens and preschools, hospitals and small towns. Performances are free of charge for the children who attend, of course. And in view of our sustained commitment to the troupe, Vaillant Croatia is already looking forward to our eleventh year of children's laughter at "Smiley" performances in 2012.

Lending a hand, even three years on

Many volunteers, politicians and reporters made their way to the Italian city of L'Aquila (located around 100 kilometres north-east of Rome) after an earthquake there in April 2009. The natural disaster cost 308 lives, destroyed 15,000 buildings and left around 65,000 people homeless. Vaillant Italia got involved in efforts to rebuild the devastated region right after the disaster struck. It offered special conditions for those purchasing and installing its products, for instance. And three years after the earthquake, Vaillant Italia is still aiding reconstruction efforts, which are taking their time – and will continue for a while yet. We will stick with it.

Ray of Light Initiative – People Need Hope

03

01 ► For years, Vaillant has supported the “Smiley” children’s theatre in Croatia. Every summer, the actors take their young audience on a journey to a fascinating world.

02 ► Nearly forgotten: The cities and villages in Abruzzo affected by the 2009 earthquake. Vaillant Italia hasn’t forgotten them and continues to help.

03 ► Aktion Lichtblicke supports children and families in need. Vaillant Deutschland is happy to help and gives its business partners the gift of becoming donors.

04 ► “Fair Future” reached more than 1,400 pupils in Remscheid.

04



Giving gifts and donating together

It’s common for solid, pivotal customers to receive little thank-you gifts come Christmas. Indeed, it is a long-held tradition among businesspeople. It’s also a custom to think of those less fortunate at Christmas – and to lend a hand to those in need. So instead of sending little Christmas presents to contact partners at major dealers, Vaillant Deutschland sponsored the Ray of Light Initiative – People Need Hope (German: “Aktion Lichtblicke – weil Menschen Hoffnung brauchen”). In 2011, our donation went to a project that helps children born to parents with mental illnesses. The organisation will use the money to build a child-friendly room at the counselling centre and to employ an additional educator. Incidentally, making donations instead of buying presents is a tradition at Vaillant Deutschland. For the last six years, the company has been sponsoring not-for-profits. It’s an idea that our business partners have come to support.

Fair Future – Vaillant supports educational campaign

What would it be like if all seven billion people on earth lived like we do in Germany? An educational campaign called “Fair Future: Our Ecological Footprint” (German: “Fair Future – Der ökologische Fußabdruck”) answered this question in Remscheid from October to November 2011. A total of 1,470 students from three schools took part, discussing how they could change the world to make it more sustainable and fair. Vaillant supported all three of the campaign’s events, sponsoring and helping staff the functions. The “Fair Future” multimedia road show – which was created by the Wuppertal Institute for Climate, Environment and Energy, Oxfam Deutschland and Friends of the Earth Germany – then headed off on tour across Germany. Oh, by the way, if everyone lived the way we do in Germany, we would need two more planets. Given we only have one, it’s time to make a few changes.

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Principles of reporting

We are committed to principles of sustainable, responsible management. For this reason, we report credibly and openly about our activities. Since 2009, the Vaillant Group has published a comprehensive Sustainability Report every year.

Scope of the report

This report contains information about the strategic direction of the Vaillant Group's sustainability management. In addition, the report discusses central developments in the S.E.E.D.S. programme's four fields of focus. The report's contents cover the Group's achievements and challenges in sustainability performance. As such, the report presents a cross-section of the company as a whole. Its target readers include Vaillant Group customers, employees, managing partners, suppliers, media representatives and other interested parties who want to gain insight into our basic values and our understanding of sustainable economic management.

When we were planning the report's contents, we took into account feedback from different groups of stakeholders gathered from different forums for dialogue. For example, Vaillant Group Market Research conducted a survey involving our professional tradesmen partners and end consumers in five different European countries. We are currently continuing to systemise communication with our stakeholders further to make their expectations and needs even more precisely usable.

Report time frame and data collection

The last Sustainability Report was published in August 2011. The reporting period for all of the key performance indicators in the current report covers the calendar year from 1 January 2011 to 31 December 2011. The editorial deadline for reports on matters related to sustainability was 31 May 2012.

All production-relevant figures relate to Vaillant Group production plants in six European countries and China. Figures were collected via a written survey filled in at our main sites and managed centrally. It should be noted in regard to the key indicators presented at the end of the report that they concern both absolute and relative figures. This allowed us to account for all factors feeding into them, e.g. expansion of our productive capacity.

Global Reporting Initiative (GRI)

Since 2011 our reporting on the Group's sustainability performance has been adapted to the Global Reporting Initiative's internationally recognised standards (see GRI, www.globalreporting.org). To find out how our reporting matches up with the GRI indicators, you can download a content index online at www.vaillant-group.com/en/sustainability. GRI-G3 application level "B" matches up with our internal assessment. An external audit of the Vaillant Group's GRI reporting has neither been carried out nor is it on the agenda.

Global Compact

The Vaillant Group became a member of the UN Global Compact in October 2011. This report includes accounts of the progress we have made in our efforts to implement the pact's ten principles (Communication on Progress). An adjacent table will show you where in the report we make reference to the principles found in the Global Compact. In the future, we will also present an in-depth overview on our initiatives in this area at www.vaillant-group.com/en/sustainability.

Print and online

The report has been published in German and English. Along with the paper copy, PDF and Flipbook versions are also available at www.vaillant-group.com/en/sustainability. In case of doubt, solely the German version published in printed form is binding.

Sustainability key figures

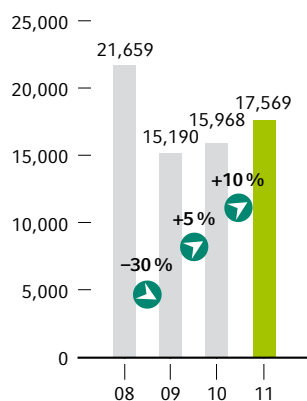
The Vaillant Group lists key figures relating to sustainability on an internal scorecard so we can manage our activities in this field. We compare the latest figures with our performance from the previous year to show how we have developed. For our environmental performance, we took specific values which enabled us to correlate overall figures with particular output quantities.

ENVIRONMENT



Waste

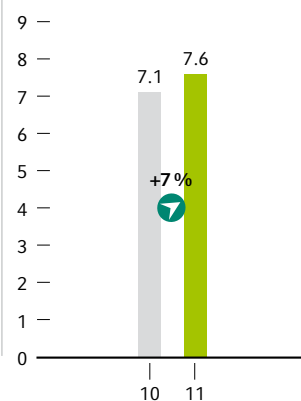
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We generated more waste in 2011. The main factor was an increase in the quantity of waste metal resulting from our expansion of radiator production in Turkey. Recycling ensured that this waste was returned to the materials cycle for reuse.

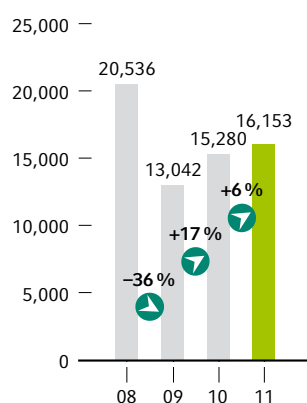
Specific waste

kg/unit



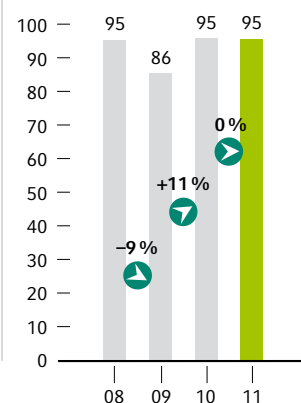
Recycling

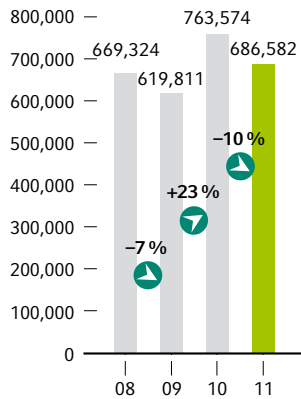
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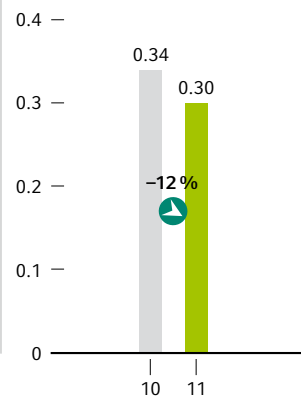
Rate of recycling

%

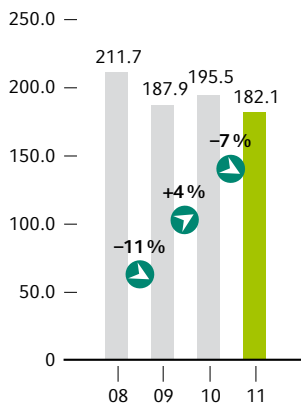


Water consumptionm³

We were able to cut our water consumption compared to 2010. Factors such as the further development of water reuse systems played a major role in this achievement.

Specific water consumptionm³/unit**Total energy consumption**

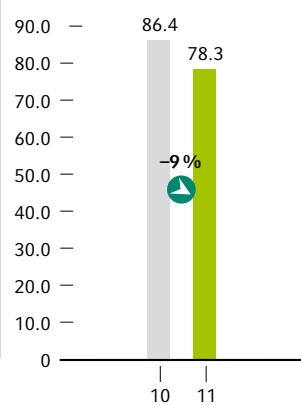
GWh



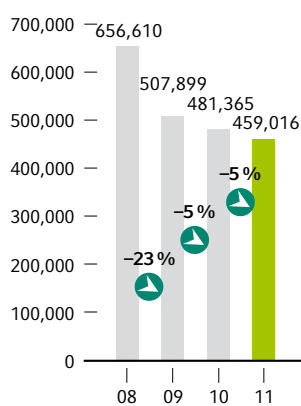
We cut consumption across the board for all energy sources. The Vaillant Group's ambitious environmental protection programme is generating results.

Specific energy consumption

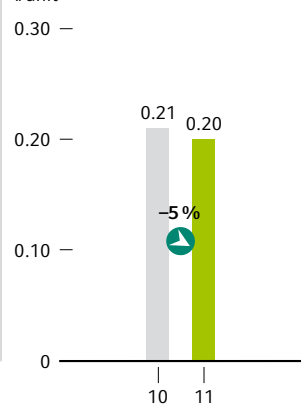
kWh/unit

**Oil**

l

**Specific oil consumption**

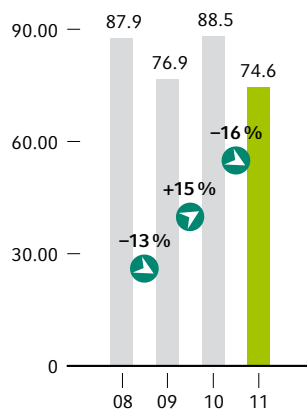
l/unit



Sustainability key figures

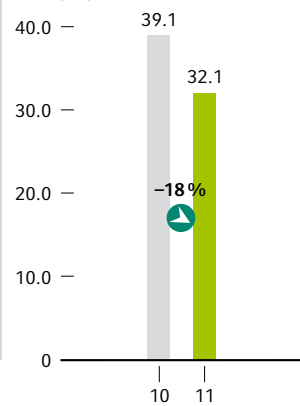
Electricity consumption

GWh



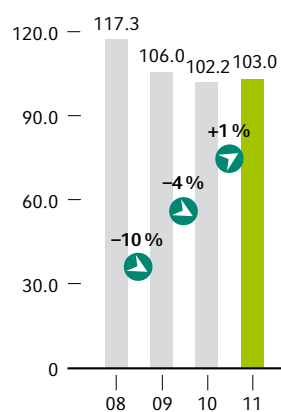
Specific electricity consumption

kWh/unit



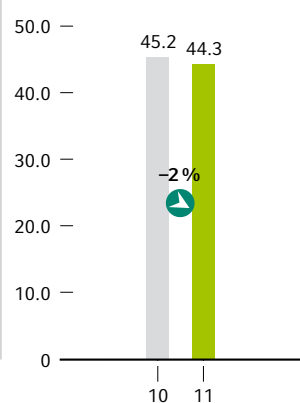
Gas consumption

GWh



Specific gas consumption

kWh/unit

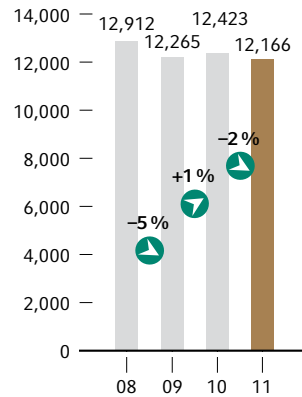


EMPLOYEES



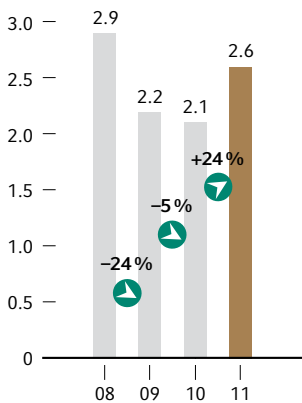
Employees

Headcount



Accidents at work

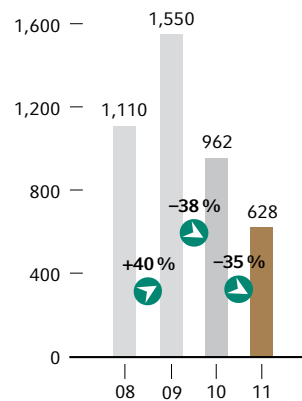
per 100 employees



The inclusion of another Vaillant site in 2011's statistics has led to an increase in the number of on-the-job accidents. The launch of a management system will help improve this figure in future.

Savings due to employee suggestion system

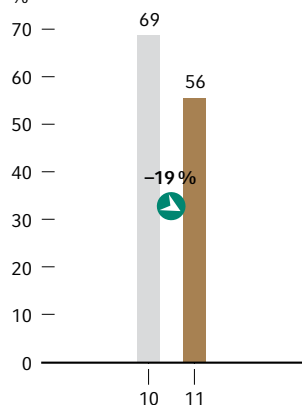
in thousands of euros



We are currently revising the employee suggestion system we use at the Vaillant Group.

Management positions filled internally

%



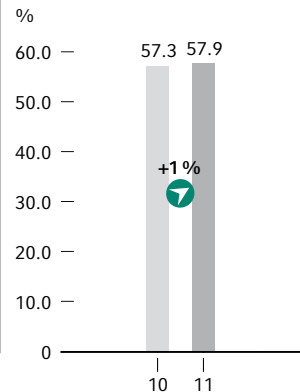
- We have included new indicators for our employee-related statistics.
- A new, comprehensive HR strategy with a corresponding range of measures will help us make improvements in this segment.

Sustainability key figures

DEVELOPMENT & PRODUCTS

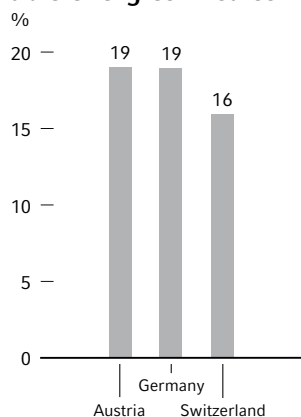


Efficient/renewable technologies – share of overall sales



In 2011, efficient technologies and renewable energies again accounted for a large share of the Vaillant Group's product sales. Their share in our overall sales remained more or less unchanged compared to 2010.

Markets with the greatest share of renewable energies in sales

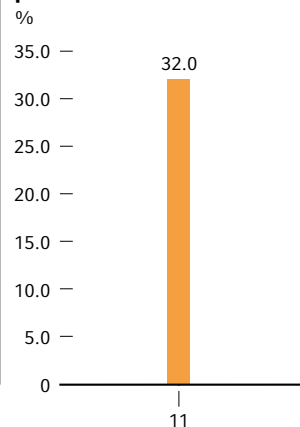


Demand for products based on renewable energies continues to be highest in central Europe.

SOCIETY



UN Global Compact purchase volumes

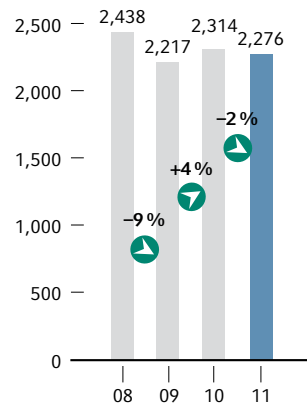


The Vaillant Group signed up to the UN Global Compact in October 2011. By the end of 2011, suppliers which comply with the UN GC's criteria already accounted for 32 per cent of our total purchase volume. The feedback period was not yet completed on 31/12/2012.

VAILLANT GROUP

Sales

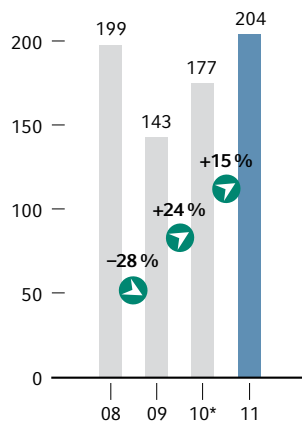
in millions of euros



Net sales at the Vaillant Group reached roughly the same level as last year despite southern Europe's economic difficulties.

Earnings (EBIT)

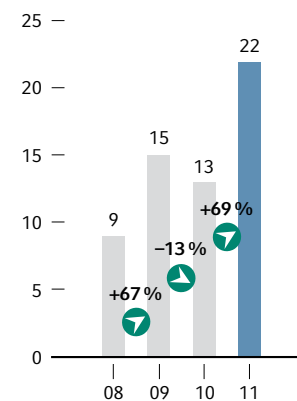
in millions of euros



The Vaillant Group once more generated a significant year-on-year improvement in its results.

Internal system audits

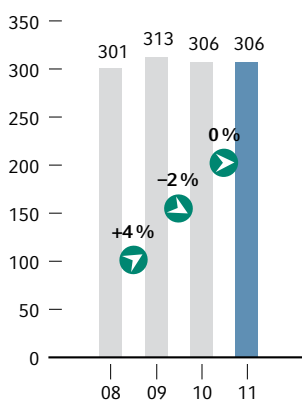
number



We were able to increase the number of internal system audits in our overall auditing plan by 69 per cent due to the inclusion of additional sites/units.

Audits of suppliers

number



2011 saw no change in the number of supplier audits.

* The Vaillant Group has changed its bookkeeping rules for its pension plans. Until the end of 2010, all pension components were listed in the company's earnings divided according to the corresponding functional divisions. The previous year's values (2010) were adjusted for reporting in 2011.

Selected actions in the area of sustainability

Target	Measure	Status	Upcoming milestones / target date
Sustainability management			
Sustainability strategy	Formulation of a Group-wide sustainability strategy covering the fields of environment, employees, development & products, and society until 2020	The Sustainability strategy is set out in S.E.E.D.S., our sustainability programme. Currently, the Group is implementing activities that are due to be in place by 2020.	2015/2020
Sustainability culture	Communicating our sustainability strategy and getting employees involved	The Group has conducted various initiatives aimed at raising employee awareness and involvement, including the Group-wide S.E.E.D.S. Award. Specialist workshops have been organised for different company departments.	Ongoing
Integration of suppliers	Imparting Vaillant Group sustainability aspects to suppliers as part of regular "Supplier Days"	Discussed as part of Supplier Day 2012	2014
Environment			
Environmental management of suppliers	Sustainability benchmarks are taken into consideration during our audits of suppliers. The Vaillant Group only works with companies that adhere to our minimum standards.	Introduced in 2006 and continually refined after that. Approx. 300 audits are conducted annually.	Ongoing
	When choosing suppliers and service providers, the Group pays increased attention to environmental issues.	Suppliers have been told about the changes and invited to inform us about product innovations and replacements that will result in an improved environmental performance.	Ongoing
Energy efficiency projects to reduce energy consumption	As a basic rule, new heating systems in company buildings must be fitted out with highly efficient condensing boilers, CHPs and technologies based on renewable energy. Existing systems are being gradually modernised.	Along with modern condensing boiler technology, a number of Group sites use heat pumps, photovoltaic systems and solar thermal heating for energy generation and producing heat. In addition, solar heating is used during manufacturing to generate heat for production processes.	Ongoing
Waste prevention	Increase in the amount of recyclable packaging used for manufacturing materials	Materials used in manufacturing are already shipped in recyclable packaging to a certain extent. Plants have now defined a standard for packaging, which will be introduced by the majority of our suppliers.	2015
Employees			
Compliance training	Group-wide training sessions	Updating the Group-wide compliance regime and conducting training courses throughout the Group.	Ongoing
Six Sigma training	More than 3,700 employees are being trained to meet specific goals as part of the training programme, which is based on a specialised belt infrastructure.	Approx. 1,800 employees had been trained by the end of 2011.	2015
Reduction of accidents at work	Certification as OHSAS 18001 compliant	An occupational safety policy has been devised. Preparations for OHSAS certification are continuing.	2015
Attractiveness as an employer	Improving the employees' work/life balance and making positive changes to the workplace environment	Group HR has launched a programme to make the Vaillant Group more appealing as an employer. Initiatives complementing existing measures are currently being put into effect.	Ongoing
Development & products			
Increase in the development of highly efficient products	Continuous refinement of the existing product portfolio; research and development of new energy-efficient, resource-conserving technologies	Expansion of the CHP portfolio, Callux field test of fuel cell technology. Secured a German Sustainability Award and the Best of SHK (an accolade handed out for performance in the sanitary, energy and climate industries) thanks to micro-CHP ecoPOWER 1.0. Berlin-based NGO Consumer Initiative awarded Vaillant Group a trophy in bronze for the Group's efforts as a sustainable manufacturer.	Ongoing
Society			
Assumption of social responsibility where we operate	Defining social commitment benchmarks for Group-wide application	Creation of a CSR guideline whose precepts will be applied to the Group's future engagement.	2015
Global Compact commitment	Obliging suppliers to comply with the pact's ten principles	407 partners that supply 80 per cent of the orders procured by the Vaillant Group are now signed up. A further round of awareness-raising took place at Supplier Day 2012.	Ongoing



“We think that ensuring sustainability in manufacturing is a central task. It’s a task that affects everyone, one where everyone can pitch in – and one that delivers benefits to all of us. I am just as much involved with it as my colleagues on the assembly line.

Radovan Pristavok
Plant Manager Trenčín, Slovakia



“We work out practical solutions alongside our expert partners in the trades – ones that result in sustainable management at our partner companies. The results of initiatives that we have already put in place reveal that awareness at those companies is continually growing.

Sheela Fernandes
Manager, Training & Communications, Vesta GmbH, Germany



“We learn very early on in training about how important sustainability is for the Vaillant Group. At the same time, we’re always being asked for our ideas about how to improve things.

Vanessa Barrios Arévalo
Industrial Business Management Apprentice, Germany



“Professional purchasing involves a lot more than just the price/quality ratio. It’s also always about responsibility – for the conditions under which the product was manufactured, and for the resources that went into making it.

Eleonore Lider
Operational Buyer, Germany



“Energy-efficient products are our core business. Developing heating technology that uses as few resources as possible is what gets me going. The fact that I’m playing a part in the drive to save energy even makes me a little proud.

Ursula Ley
Project Manager Floor-Standing Boiler R&D, Germany



“Sustainability is an important business factor. Customers are increasingly asking about issues regarding responsible corporate governance. We try to back our ambition with profound activities in all relevant areas.

Gherardo Magri
Country Director, Italy



“Making sure that our manufacturing site offers a safe working environment for all colleagues is my daily job. To know that the Group’s sustainability strategy gives health and safety issues top priority is therefore a great motivation.

Allan Harley
Health, Safety & Environmental Manager, United Kingdom



“Both job applicants and existing staff draw a clear picture of their ideal employer. Seeing a meaning in what you do, and balancing work and life is becoming equally important as remuneration or career perspectives.

Caroline Mathiaud
Sustainability & HR Project Manager, France



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