The Sustainable Bathroom

Sustainability Report no. 1 from Duravit
The sustainable bathroom – à la Duravit.

The Earth's natural resources are not available in unlimited quantities. As the global population continues to rise, the need for sustainable concepts to conserve our ecosystem also increases. Drinking water will become more and more precious, not only in the third world. And our society would be completely unthinkable without energy, heat, electricity and fuel.

So there is absolutely no alternative to sustainable development. After the massive overexploitation that took place in the recent decades of the industrial age, man has learnt to be more careful with natural resources. Even though sustainability starts with the individual, whose washing, eating and consumer habits trigger a domino effect with consequences for our planet that are multiplied a billion times over, companies that manufacture millions of goods for distribution around the world and that employ a large number of people bear a particular responsibility.

Duravit was and is aware of this responsibility: for decades, our company history has been shaped by an awareness for sustainable values and actions. During this time, as a company that has remained rooted in its homeland and as a social employer that is also the producer of innovative design, Duravit has achieved a great deal. This report pinpoints Duravit's commitment to practical, rational sustainability and reveals the contribution that Duravit's sustainable bathroom can make to a responsible future.

Franz Kook
Management Board Chairman of Duravit AG
Our history: from earthenware to sanitary ceramics, from Hornberg to the rest of the world.

The history of the Duravit Group started in 1817 with the construction of an earthenware factory in Hornberg in the Black Forest, which has served as the headquarters of Duravit AG ever since. The product range was extended to include chamber pots followed by sanitary products, and this provided the foundation for later success. At the beginning of the 20th century, these were still being sold under the “Duraba” brand. In 1956, production switched entirely to sanitary ceramics and, in 1960, the company started to trade under the Duravit name. The term sustainability was not yet the buzzword that it is today, but the material used to manufacture the products already met all criteria: sanitary ceramic material was and is eco-friendly in its manufacture, is robust in everyday use and, after a long service life, is 100% recyclable. The company took its first step towards internationalisation in 1984 when it acquired a majority shareholding in the Alsace-based company Céramique de Bischwiller. This was followed by other international company takeovers.

The Duravit product range: virtually the whole bathroom from a single source.

The Duravit Group has more strings to its bow than just sanitary ceramics in the form of washbasins, handrinse basins, toilets and bidets. Today, its extensive product range includes everything from sanitary ceramics and bathroom furniture, shower trays, bathtubs, whirltubs, whirlpools, saunas and shower-toilet seats to lighting concepts and accessories – virtually everything you could need for the bathroom, produced entirely in-house and designed by high-profile international designers and architects. Duravit products and ranges are suitable for both new builds and bathroom renovations, whether in the private, semi-public or public sector.

Production and sales: well-positioned all over the world.

Today, the Duravit Group has a workforce of about 5,500 people around the world, with about 20% of these working in Germany. Duravit has 10 production sites in seven countries, three of which are in Germany: in Hornberg, Schenkenzell and Meißen. Other locations are Bischwiller (France), Istanbul (Turkey), Bizerte (Tunisia), Cairo (Egypt), Chongqing (China) and Tarapur (India). Duravit has 29 sales companies around the world and is present in more than 100 countries. Thanks to the Duralog Duravit Logistik GmbH subsidiary in Achern and its optimum planning, Duravit achieves top service ratings worldwide and this, too, is a sign of our sustained commitment.

Markets and business: building on good bathroom design.

In 2010, the Duravit Group generated a total turnover of Euro 328.2 million worldwide, 77.1% of which was generated on international markets.
The MC Dry Urinal reduced water consumption to zero.
Sustainable forms without an expiry date

Neither Duravit nor its designers – renowned for their work, every one of them – are interested in “design for design’s sake”. This is because good design is not just about looks but equally about practicality and sustainability. This applies to the materials used, their environmentally-friendly production and design. After all, who wants design that comes with an expiry date? This is why Duravit develops and offers timelessly modern forms for all its products and ranges rather than following fashion trends. This is demonstrated by four examples:

Starck 1: The search for the origin of things has written bathroom history

With the Starck 1 range, designer Philippe Starck and Duravit have gone back to the beginnings of hygiene, body care and wellness. The range also describes the evolution of the bathroom: the toilet, bathtub and washbasin are clearly descended from their historical predecessors, namely the bucket, tub and washbowl – even though they have been completely reinterpreted. And because something this good does not have to be “optimised”, the products in the range – ceramics, furniture, shower trays, bathtubs and accessories – have not been changed at all since their market launch in 1994.

Consistently rectangular, consistently successful: the Vero bathroom classic

Cinema screen or computer monitor, fridge or milk carton, a room, a table, this brochure: our world is inconceivable without the rectangle. Perhaps this is why we are so attracted to Vero: the forms of this ceramic range are entirely restricted to the rectangle. A restriction that gives rise to new possibilities: this is because Vero is one of the most versatile ceramic ranges of all time. Vero has been impressing architects, building owners and bathroom users for a decade with its clear, minimalist design.

Happy D.: archetypical bathroom design

There are many reasons for the success of Happy D. On the one hand, despite its designer credentials, the range developed by Sieger Design offers outstanding value for money. On the other hand, because sustainability is a product of permanence of memory: thanks to their succinct D form, the washbasin & co. are to successful bathroom design what Bauhaus is to architecture. Happy D. is simple, aesthetic and, above all, timelessly modern – a true icon that, since its market launch in 1999, has scooped numerous design awards.

1930 Series: timelessly up-to-date design for more than 80 years

The design of the 1930 Series is the very essence of sustainability: designed in the golden twenties of the last century and first presented to the world’s public in 1930, the characteristic form of the octagonal washbasin by Duravit has remained unchanged to the present day. Over the years, many other attractive pieces were added to create the range we know today. With its inimitable design, the 1930 Series became a timelessly modern bathroom classic and will doubtlessly continue to be so for many more years to come.

Forms for today, tomorrow and the day after tomorrow. Bathroom design by Duravit.
Sustainable design
10 questions for Prof. Werner Sobek

Prof. Werner Sobek is a visionary who designs and constructs ingenious building projects from the point of view of sustainability. His visions range from the delicate, translucent residential house that produces all the energy it requires itself and that stands proud in any environment, to the development of intelligent textiles that, in future, could be used as façade covering for buildings. We asked him 10 questions about sustainability and design:

1. What does sustainability mean for you? In this context, can you explain what you understand by Triple Zero®?

In terms of its content, the poorly chosen term sustainability refers to the essential prerequisite for future life on Earth. For me, the actual meaning of the word has been at the centre of my actions since my youth – we were brought up to practice it, even though the term itself was never uttered. The term I myself have introduced, Triple Zero®, refers to a radical standard that defines the technical qualities of sustainable construction: I believe that we should build in such a way that our houses – do not require any energy generated from fossil fuels: zero fossil energy – do not emit any harmful emissions: zero emissions – do not generate any waste during construction, renovation or dismantling, rather all the materials used can be returned to technical and biological cycles: zero waste.

2. Will the Triple Zero® philosophy develop further and, if yes, how?

If we consider the importance of the building sector for achieving the minimum targets that are necessary to stabilise the Earth, then there can be no other way. The Triple Zero® philosophy has to become the basis for all human activity. I should like to point out that the third zero, namely the requirement to avoid any waste whatsoever, implies the Cradle-to-Cradle principle developed by Michael Braungart and William McDonough and which refers to the requirement for unlimited, complete closed-loop recycling.

3. In your opinion, what still has to be done in order to further promote recyclability?

A lot. Nothing has been done for too long. We must generate greater awareness in all areas of society and provide more information. The full extent of the problem is still not clear and still not fully known. At the same time, the necessary methods, procedures and technologies have to be developed further. Just so you know: the building industry consumes 60% of resources and generates 50-60% of bulk waste. However, there is not a single manual or textbook, anywhere in the world, about recycling-oriented construction.

4. Your definition of sustainability?

When he formulated the ecological imperative “Act so that the effects of your action are compatible with the permanence of genuine human life”, philosopher Hans Jonas actually outlined my own understanding of sustainable building: it is about satisfying the needs of the present and, at the same time, maintaining a healthy and livable environment for future generations. It is about creating spaces, also urban spaces, that are both ecologically compatible and economically acceptable and that give maximum priority to the interests of users. In the building industry, as in other areas of our life, sustainability is not just about ecology and economy but it is also based on socio-cultural factors, such as health and the comfort and social interaction of the respective users. Sustainable building is based on a holistic view of the ecological, economical and social impact of the built environment on man and nature.
5. How is sustainable design expressed?

I suspect there are no sustainable forms as such. Some forms last longer and have a longer appeal. But that is something different. There are sustainable production methods and there are design or construction methods that enable sustainable use. If we view the latter from the perspective of the designer, architect or engineer, it means the economical use of resources, namely lightweight construction, minimising energy consumption and emissions, as well as, very importantly, the ability to return built components to natural or technical cycles. The latter means the a priori concept of the dismantling or disassembly phase, or the ability to identify the built materials at a later stage as a necessary prerequisite for reintroducing them into biological or technical cycles.

6. Do some forms last longer than others?

Of course. However, I have not been able to identify a definitive set of these forms. I suspect they are those forms that can themselves answer the question “Why?” These include forms that were created in response to a radical requirement, namely forms with a high inherent logic, such as forms with a minimum weight, forms of bodies of great speed, forms that result from strict compositional requirements but also forms that carry meaning.

7. How important is sustainable design for you in terms of architecture?

It’s elementary. However, in our company, we don’t talk about it a lot. It is simply the basis for our work and has been for a long time.

8. What is your vision – how does sustainable building and furnishing look in the medium and long-term?

On no account must sustainable building and furnishing lead to austerity. This is not necessary, as there is enough of everything to go round. We just have to distribute things fairly and justly, and this means a radical restructuring of our society. And we have to consistently return things to a technical or biological cycle so that nothing is lost. So the processes will change. Social structures will change, and we are already seeing the first dawn of these changes in many parts of the world.

9. And in relation to the bathroom?

Hygienic and, in the overall balance, economical. But nevertheless joyful.

10. Are sustainable projects (more) expensive?

If you consider the overall balance, and society really must embrace this systematic view once and for all, then the answer is a categorical no: sustainably designed products do not have to be more expensive.
Economical. Economy is about more than just numbers. From product development to distribution, Duravit maintains an economy of responsibility.
Responsible from the outset.
The product cycle at Duravit.

Ongoing research and development for optimum solutions

The sustainability of a product is not a matter of chance, rather it is decided well in advance, at product development. This is why, for decades, Duravit has been investing a considerable amount of time, money and energy in research and development – an investment that pays off later for the company, users and the environment. Developers and designers focus on water-saving and energy-efficient solutions, environmentally-friendly manufacture, timeless forms that retain their appeal for years and simple product assembly. In order to achieve the best possible results, Duravit enters into a dialogue with its customers, trade partners and sanitaryware dealers, as well as with retail consumers. Whether at national or international trade fairs, during seminars or in conversation with our customers, we welcome requests, ideas and criticisms, which we then analyse and process further.

Environmental compatibility of materials and resources

At Duravit, the selection and purchasing of materials and components are subject to strict ecological and economical requirements. Bathroom furniture is mainly made from native wood that is sourced from certified, sustainably managed forests. In the case of bought-in parts, only products manufactured in compliance with DIN standards are used and clearance certificates are required in order to verify their environmental relevance. Before purchasing materials and chemicals, the relevant safety and datasheets are procured and stored in a system that is accessible to all employees. We carry out ongoing checks to ascertain whether a material can be replaced by a product with a lower environmental impact. In addition, purchasing volumes are bundled so as to ensure economical and ecological procurement.

Unconditional product safety

At Duravit, unconditional product safety is of paramount importance. All ceramic products and bathroom furniture comply with the fundamental requirements of relevant EU directives, carry the CE mark and are subject to strict internal quality requirements that sometimes also exceed statutory standards. Numerous internal and external checks with regard to safety, hygiene, usability, noise reduction and soundproofing are carried out during product development. All products are subject to strict load tests, for example, the doors of the bathroom furniture are opened and closed 120,000 times. All bathroom furniture with electrical parts is tested for its electromagnetic compatibility (EMC) and manufactured in compliance with VDE or UL standards. Before dispatch, each individual part is subjected to a function test.

Products can be recycled

It is Duravit’s declared goal to return everything to the production cycle, wherever possible. All materials used at Duravit can be recycled: sanitary ceramic can be recycled and used as a wear-resistant material in road construction and some of it can also be used at Duravit for further production. Recycling sanitary acrylic is complex but the acrylic component can be used in the manufacture of varnishes. As a rule, recyclable raw materials such as ABS plastics, board materials, fittings and glass are used for the bathroom furniture. As it is easy to dismantle, the furniture can be disposed of in accordance with the raw materials used.
Intelligent packaging management

Like the technical documentation and assembly instructions, the packaging for Duravit products consists of 60% recycled paper and can itself be fully recycled. Wherever possible, Duravit packaging is slotted together and only glued in areas subject to particularly high loads that require additional support. However, no other additional aids, such as metal staples, are used to hold the packaging together. Thanks to intelligent packaging management, pallets can be loaded with different pack sizes to avoid wasting any valuable space during transport.

When developing packaging, the intelligent arrangement of the various elements and inserts prevents any unnecessary padding, such as foam or polystyrene, whilst still providing maximum protection for the product inside. In Germany and Austria, Duravit also participates in the Interseroh and ARA recycling programs.

Recycling

In 2010, by actively recycling paper, cardboard, boxes, PE and PP plastics, wood, aluminium, steel and sheet metal, Duravit was able to reduce CO₂ emissions by 385 tonnes in Germany alone.

REACH

REACH (Registration, Evaluation, Authorisation of Chemicals) applies to all companies that trade chemicals or import them into the EU. REACH-relevant information on the material used can be found in the safety data sheets. These data are made available to all customers and users along the entire supply chain. Duravit products and packaging do not contain any materials included in the current REACH “candidate list” (as at December 2011) of directive (EC) no. 1907/2006 in a concentration of more than 0.1 mass percentage. The only exceptions are certain bathtub support frames that contain the flame retardant HBCDD (hexabromocyclododecane) in a concentration of more than 0.1 mass percentage. This is indicated accordingly in the relevant delivery note.

Customer satisfaction is our top priority

Customer satisfaction is an important element that speaks volumes about the sustainability of a product. At Duravit, customer satisfaction is our top priority: as part of an internal programme with strict parameters, Duravit ensures that service data such as delivery times and supply availability are observed without any quality impairment. All technical questions are answered by Duravit employees via a dedicated Duravit hotline. Any complaints are processed quickly and competently via a uniform system that also operates at international level. Sources of error are carefully analysed in order to eliminate any production defects without delay. Surveys carried out by “markt intern”, the information service for the German sanitary industry, reflect Duravit’s good customer satisfaction record in Germany. For years, Duravit has regularly scored top marks in terms of both product quality and services.
Purchasing with an eye to the future. The Duravit supply chain.

The supply chain is optimised on an ongoing basis

Duravit has more than 5,000 suppliers across the world. An impressive figure demonstrating that the supply chain has a tremendous effect on the economic success of the company and the sustainability of its products. This is why strict criteria apply in terms of quality, innovation, logistics, conditions and collaboration, even when selecting the suppliers. At Duravit, these performance data are collected systematically and re-evaluated annually – this information is also made available to the supplier in order to demonstrate which performances offer room for improvement.

Established quality criteria

Both technical delivery and acceptance conditions and quality assurance agreements stipulate product-specific quality characteristics and technical requirements for the product to be purchased. Without any questions environmental aspects, up to and including environmentally-friendly packaging, also play an important role. The technical delivery and acceptance conditions not only specify the quality characteristics but they also contain agreements regarding test samples that must be approved by Duravit before delivery. This minimises the number of rejects and complaints and also prevents the costly return or disposal of defective goods.

Short routes, high standards

Duravit works exclusively with high-profile companies, preferably from the respective region. This local-for-local sourcing policy facilitates collaboration and reduces transport routes. It saves time, reduces transport and logistics costs and protects both the environment and resources. Close business relations that have developed over the course of time also shorten decision-making processes. Craftsmanship is also sourced locally in order to strengthen the region in the long term. German law sets high and binding environmental and social standards, and an additional environmental certificate is a further document that facilitates the decision in favour of a particular supplier.

Experience, expertise, trust: synergies generate sustainability

All successful partnerships are based on trust. Duravit has been working closely with the majority of its suppliers for many years: because they know the company and the brand, it is easier to develop company-specific concepts and solutions. In return, audits of the production companies give Duravit an insight into manufacturing methods and this, in turn, leads to a lively exchange of experience and optimisations. Many companies supply several of Duravit’s international sites – and this proves beneficial in terms of organisation, time and efficiency. This creates synergies that have a lasting impact beyond pure cost accounting. With minimum risks: an effective risk management system is applied continuously and ensures that there are no one-sided dependencies.

Collaboration that looks to the future

Even in the last few years that have been marked by economic difficulties, Duravit has continued to maintain a fair and responsible relationship with its suppliers. Surcharges to cover rising energy and metal costs in line with market prices have fallen, whilst material and service costs have remained more or less stable. Price negotiations allow a fair profit margin for the respective suppliers, enabling them to continue to invest in development and production: this is the only way to ensure the company’s long-term profitability so that it can also meet Duravit’s high quality requirements in the future.
Sustainable computing. “Green IT” at Duravit.

**Investing in environmentally-friendly and energy-efficient products**

All departments at the Duravit headquarters in Hornberg are also required to work in a sustainable way. The Information Technology (IT) department places a strong emphasis on this. Starting with procurement, it invests exclusively in particularly energy-efficient power-supply units, processors and hard drives. Products that carry the “Blue Angel” eco-label contain components that are manufactured using environmentally sound methods; they are low in pollutants and can be recycled. They also reduce power consumption considerably. This also applies to the flat screens that replace CRT displays.

**Reduced power consumption thanks to virtualisation of servers and desktops**

How can we improve the efficiency of server hardware utilisation? Duravit’s IT department solves this problem with a state-of-the-art technology called virtualisation. With this technology, the server hardware is partitioned in such a way that it can perform several tasks. A single server can perform the functions of up to 20 servers and increase its utilisation from 10-15% to 70-75%. This has a number of positive effects, namely a smaller overall footprint, fewer air conditioning measures, power consumption is reduced and fewer USPs are required. USP stands for “uninterruptable power supply” – a high-performance battery that provides emergency power when the input power source fails. This efficient technology will not be applied exclusively to the servers but will also be extended to the desktops.

**Greater efficiency by storage networking**

Another technology used at Duravit is the storage area network (SAN). Thanks to this technology, the required hard drive capacity can be taken from a joint server pool rather than from many individual servers. This means that both upgrades and new procurements are obsolete. 50% of all servers already operate under this concept and more will follow gradually.

**In line with requirements: less power consumption, longer PC service life**

Separating the visualisation and processing tasks of programs also helps to save energy – something that the Duravit IT team is already working on successfully. For example, the data processing of the program Lotus Notes has been configured to be executed on terminal servers in the computer centre, whilst the terminals continue to host the program interface. This reduces the required computer power and smaller and older devices can also be used for longer. In addition, energy consumption is also reduced as the terminal servers can be used more efficiently. The servers are also aligned more closely with actual needs and automatically shut down at night.

**Better climate thanks to new air-conditioning system and ecological coolant**

Every server produces heat and has to be cooled accordingly. This is achieved using a fan above the processor, as well as an air-conditioning system in the server room. The new air-conditioning system in Hornberg uses ecological coolants that are not classed as special waste. In addition, the cabinets containing the servers were rearranged in such a way that the computers are cooled from the front and heat-withdrawn separately from the rear. The building’s east, south and west façades have been fitted with shutters to prevent the sun from heating the building further. In the long term, there are plans to install a „free cooling” system, e.g. using cold external air in winter.
Ecological. We need nature. And nature needs us. Which is why Duravit ensures the environmental compatibility of all of its activities.
Toilets with economical water consumption

In the 1980s, Duravit had already harmonised the geometry of the body of the toilet with the flushing volume and reduced the amount of water consumed by its toilets to six litres as opposed to the nine or more litres that were standard at the time. Thanks to ongoing research and development, Duravit is today able to offer toilets that flush hygienically using just six, four and a half or even less water (see Dual Flush).

At international level, Duravit offers toilets that also flush efficiently with a low flushing volume and that carry the “EPA WaterSense High Efficiency Flushing” label.

Water-saving technologies: Dual flush and Stop+Go

Thanks to the Dual-Flush technology, a household of four can additionally save about 17,000 litres of water per year. Press the economy button to flush with just half the water volume and wash away liquid waste cleanly and hygienically. Press the large button to use the full water volume. In addition, pressing the Stop+Go button interrupts the flush.

Because every drop counts: the waterless McDry urinal

And it’s also possible to do without any water whatsoever: in the McDry urinal, a purely plant-based and thus biodegradable sealing liquid effectively prevents unpleasant odours. The siphon, like the entire urinal, is made of a robust, durable sanitary ceramic, which means it is not necessary to keep changing the plastic siphon, as is the case with other urinals. Highly functional and easy-care, the urinal is incredibly easy to keep clean. A nice touch: the design of McDry is modelled on the shape of a water droplet.

The Utronic urinal flushes thanks to intelligent, electronic control

The intelligent, electronically controlled Utronic urinal with individual flushing and service programmes guarantees both a high level of hygiene and low water consumption. Selecting the various preset flushing programmes is child’s play with the magnetic key that comes with the urinal. The automatic infrared sensor control triggers the economical 1-litre flush as soon as the user has moved away. As the urinal is logical and “thinks for itself”, the flush cannot be triggered by inanimate objects or people walking past. The urinal flushes automatically 12 hours after the last use to prevent any odours from developing. Thanks to its compact form and the discreet, integrated placement of the control unit, Utronic offers maximum protection against vandalism and this, too, is another important aspect with regard to sustainability.

Showering and taking a bath without a guilty conscience

On average, taking a shower consumes less than one third of the water volume required to fill a bath. For this resource-saving pleasure, Duravit offers a comprehensive range of shower trays, up to and including flush fitting shower trays. However, Duravit also offers intelligent answers to the
question of whether it’s possible to take a bath without having a guilty conscience by offering bathtubs that, thanks to their optimum use of space, conserve our water resources by every means possible. For example, with a length of 160 cm, the bathtubs in the Starck and D-Code ranges have a comparatively low filling volume. And, thanks to its innovative, ergonomic and sophisticated trapezoidal shape, the Paiova bathtub offers maximum bathing comfort with minimum water consumption.

DuraCeram: extra robust and durable special ceramics for kitchen sinks

Ceramics have many valuable properties: resistant to extreme temperatures, to odours or flavours, lightfast and hygienic. As a natural raw material, it is non-hazardous to use and also extremely durable. For years, ceramics material from Duravit has been putting its qualities to the test in the bathroom. However, Duravit has developed an even more robust variant for its range of kitchen sinks: DuraCeram®, made from a special mass that features greater impact resistance and robustness and that is ideal for meeting the extreme requirements of the kitchen.

The WonderGliss easy-care coating conserves resources

All Duravit ceramics for the bathroom and kitchen are also available with WonderGliss, a hygienic and easy-care innovation by Duravit that was developed on the basis of nanotechnology. The coating is fired right into the ceramics and doesn’t give grime a chance: dirt and limescale can no longer secure a hold and residues run off more easily with the water. This saves resources because less cleaning also means using less cleaning agent and water.

Green light for environmentally-friendly LED technology

Wherever it makes ecological sense, Duravit has been using resource-saving LEDs (light emitting diodes) for years. Applications include the light and coloured-light programmes for bathtubs, whirltubs, pools and saunas, as well as the controls on bathtubs or mirrors with integrated light. This generates power savings of up to 80% compared with halogen lights. Only LEDs and energy-saving lights are used to illuminate Duravit bathroom furniture.

Less noise means greater sustainability: noise- and energy-reduced fan technology

The Duravit whirl systems for whirltubs and pools now feature a new fan that reduces the whirl volume by 9 dB – this corresponds to a noise reduction of almost 50% and an energy saving of up to 40%.
Promoting sustainability. What we are doing at Duravit.

The work of the environmental and energy teams has a lasting effect

Positive change can only happen if we communicate with one another. To optimise all internal processes with regard to ecology and energy technology, Duravit set up two interdisciplinary teams of specialists; the Energy team in 2006 and the Eco team as early as 1993. Consisting of experts from different European production sites and with the participation of managers and the board member responsible for technology, the teams regularly discuss current developments, legislative amendments, environmental and energy figures, and any other related issues. The resulting findings and optimisation proposals are then put into practice at all Duravit sites.

Inform, evaluate, discuss, optimise

The Eco team was founded as early as 1993. It meets three times a year in order to share information and discuss all environmental aspects at Duravit, starting with the procurement of raw materials through manufacture, packaging and product use to the disposal of both production waste and the products themselves. In addition, the team discusses issues relating to the use of potentially hazardous materials, risk management for the production facilities and processes and it also looks for environmentally-compatible solutions. The Energy team founded in 2006 meets four times per year. It examines the energy aspects of existing technical facilities and how to optimise them: where and how can energy consumption be reduced further? To answer this question, an energy consumption report is to be compiled and an energy-saving database established in the medium term at each non-European factory. This enables the team to draw up action plans with regard to environmentally-acceptable production planning, environmentally-friendly technologies such as heat recovery, and a general reduction in the use of energy and resources.

Energy, raw materials, emissions: less is more

As a rule, Duravit endeavours to keep energy and raw material consumption, as well as emissions (CO2, pollutants, noise), to a minimum and works tirelessly to reduce these further. Numerous measures are required for this. In the production of ceramics and bathroom furniture, technically sophisticated production facilities guarantee efficient and low-pollutant operation. Effective facility management also helps to reduce energy consumption in the administrative buildings.

Water recycling with the new wastewater treatment plant

The new wastewater treatment plant at the Hornberg site shows how water can be reused several times. Commissioned at the beginning of 2011, the plant enables a reduction in the amount of treatment chemicals used by up to 20%. As all wastewater from production is conducted through the plant, it predominantly contains body scrap and glaze waste, as well as solids. These are separated both mechanically and chemically. The residual water is removed from the solids content and is then returned, in part, to production; this saves resources and avoids the high costs of waste disposal. The industrial process water can also be largely reused: thanks to the plant’s constantly high cleaning performance, the water can be reused in production for cleaning. Only about 45% of the water required in production is fresh water.

Pilot plants used to test new methods

The Eco and Energy teams are always on the lookout for new methods for conserving both resources and the environment. Diploma thesis completed at Duravit also provide important impulses. Promising new technologies are also put through their paces in the form of pilot projects at one of the factories. If the method proves effective over a longer period, it is also tested at other sites and, if applicable, then used throughout the Group. Precisely one such pilot project is currently running on the casting plant at Duravit in Meissen:
here, the industrial process water generated in production is fed through a ceramic membrane. All solids are separated and the water is fully recycled without the use of any chemical additives. The recycled water is used to clean the casting moulds and this virtually reduces the use of fresh water to zero. In Meissen, this saves about 5,500 m³ water per year.

**Saving energy thanks to intelligent power management**

Depending on the production stage and corresponding energy requirement, so-called peak loads occur in energy-intensive production facilities and these place a considerable load on the network. In sanitary ceramic production in Meissen, Duravit has succeeded in greatly reducing these peak loads by implementing a carefully thought-out power management system: based on the well-planned operation of the production facilities for preparing ceramic mass and glaze, as well as WonderGliss production, energy consumption has been reduced noticeably.

**Waste wood generates heat for the production of bathroom furniture**

Duravit’s production of bathroom furniture in Schenkenzell demonstrates how waste is converted into energy: all woodchips and shavings are collected in a woodchip burner and recycled for heat recovery. In Schenkenzell, this meets the entire heating requirement for production without the need for further energy sources or additional transport costs. Naturally, all the emissions produced during this process pass through a sophisticated technical filter system.

**Heat recovery with the surplus heat from ceramic manufacture**

The production of sanitary ceramics generates a great amount of heat, particularly in the kilns and drying rooms. Heat that, at Duravit, is not simply wasted but reused. According to the principle of heat recovery, at the sites in Hornberg, Meissen, Bischwiller and China, the energy obtained from the surplus heat is returned directly to production. This means that up to 50% of the heating requirement can be derived from recovered surplus heat.

**Effective waste management at all sites**

As a rule, Duravit endeavours to avoid or reduce waste wherever possible at all of its production sites and in all its administrative buildings. Production waste is generally separated at the factory for optimum material disposal and recycling. As a result, the recycling quotas, some of which are in excess of 95%, are attained in the European factories. Duravit works exclusively with certified waste disposal companies. The total waste volume is recorded in the ISO 14001 certified factories and is traceable. Of course, it is more sustainable to recycle waste internally, as is the case in the wastewater treatment plant in Hornberg and the woodchip burner in Schenkenzell.

**Showing waste the red card**

A greater awareness when using resources was also the topic of the 2011 Dii campaign (Duravit innovation internal): under the motto “show waste the red card”, all employees in production and administration were required to look more closely at actual situations and processes at their workplace and in their department and to submit any optimisation suggestions. It was certainly something worth thinking about as prizes were immediately awarded for all useful suggestions with particularly attractive prizes for the best ideas. During the campaign period, the number of suggestions submitted rose by about 40% and the number of participating employees increased by about 15%. Many employees submitted a Dii suggestion for the first time. The campaign showed that very specific sustainability can also be achieved in a light-hearted way.
Green architecture.
Sustainable building with Duravit.

Water-saving and durable products for a sustainable architecture

During times of climatic change and a shortage of resources, it is increasingly important to design sustainable architecture. Many factors contribute to a building's environmental and energy-saving credentials, however, the most important are location, building materials, construction, insulation, ventilation, energy generation and supply and water consumption. This not only presents new challenges for building owners and architects but also for manufacturers of furnishing products. Duravit welcomes the move towards “green architecture” and its products offer suitable solutions for environmentally-friendly bathroom design.

Sustainability is a winner at the Solar Decathlons 2007, 2009, 2010

The buildings designed as part of the “Solar Decathlon” clearly demonstrate that sustainable architecture does not have to be boring: the international student competition is regarded as one of the most important of its kind in the field of sustainable architecture. In 2007, 2009 and 2010, German high-school teams were right at the forefront – as were sustainable bathroom products by Duravit.

The Plus-Energie-Haus generates its own energy

The 2007 winners were students from the TU Darmstadt led by Prof. Manfred Hegger. Their “Plus-Energie-Haus” was a prototype for a building that meets all its own energy requirements. The building facade of the single-storey building constructed in Washington DC (USA) is as aesthetic as it is efficient: the oak planking is fitted with photovoltaic elements that use solar power to generate electricity. In the sanitary area, product quality and durability, water consumption and barrier-free properties played a key role, which is why the prize winners chose products from the Duravit Starck 3 Vital range.

The shingles of the surPLUShome use solar power

In 2009, the team from the TU Darmstadt clocked up another success. Once again, the students focussed on solar power: in the “surPLUShome”, almost the entire facade is covered with photovoltaic elements, arranged in the traditional shingle construction style. The entire architecture and interior design are harmonious, with the consistently rectangular Vero bathroom range by Duravit providing the ideal complement to the classically simple room layout. The prototype was also built in Washington DC (USA).

Living Equia: living in the solar-powered one-family house

A team of three Berlin universities (HTW, BHT, UdK) entered the first European Solar Decathlon 2010 with “Living Equia”, a prototype based on the traditional one-family-house style that was constructed in Madrid (Spain). Black is the colour that unites the charred-wood curtain facade and the solar panels on the roof. The surprisingly spacious bathroom is impressive on the strength of its simple, enduring forms and its efficient water consumption. The prize winners chose to furnish the bathroom with products from Duravit’s Starck K, Vero and Duraplus ranges and selected a DuraPlan flush-mounted shower tray.

Relaxation in the midst of glorious nature: Theiner’s Garten Bio Vitalhotel

This example demonstrates that sustainable architecture not only works at competition level but also in “real life”: designed as a terraced vineyard, the four-star “Theiner’s Garten Bio Vitalhotel” is situated in Europe’s largest continuous fruit-growing region. The hotel was built in strict compliance with the principles of building biology as a solid timber structure without the use of nails or glue. Clay-rendered wall heating and the use of natural materials throughout the building ensure a healthy indoor climate. The large wellness area offers complete relaxation for the eyes, body and spirit and features Duravit products, namely the D-Code range and the Fizz urinal.
Outstanding, sustainable architecture: almost the entire façade area of the “surPLUShome” is covered with photovoltaic elements that use solar power to generate electricity.
Social. Ultimately, it’s about people. And Duravit puts people centre stage. Ranging from sociable working conditions to commitment to the community.
A corporate culture of support promotes identification

How can you put ideas into practice within a company? Certainly not by issuing instructions from the top down but by operating on equal terms and in agreement with the respective employees. Duravit’s corporate culture is based on encouragement and support, which promote mutual respect. This, in turn, enables employees to identify with the company, is inspiring and increases productivity – and it is also sustainable in the best sense of the word. After all, if employees remain at the company for longer, less time, money and energy is spent on recruiting and training new staff.

Flat hierarchies and a cooperative leadership style

Duravit wants to establish long-term relationships with its employees. This is why we promote an extremely human corporate culture. Flat hierarchies mean that all employees can go straight to management with any questions. Each employee has a large amount of freedom within his/her working area and the scope to act independently. A non-bureaucratic, collegial and cooperative management style maintains flexible structures and invites all employees to assume greater responsibility and to act upon their own initiative.

Social benefits both in Germany and abroad

Some years ago, in order to ensure social provision in old age, Duravit introduced a company pension scheme in Germany that is additional to the collectively agreed pension provision. As employees come from a large catchment area, we also give travel allowances. Employees also receive other forms of support, including a vacation allowance. In Germany and at all its international sites, Duravit not only pays the statutory or contractual minimum wage but also a voluntary component above the general scale. This depends upon quality and productivity, individual performance and the economic success of the respective site but is, of course, regardless of gender, religion or nationality. If there are no national social insurance systems in place in the respective countries, Duravit insures employees against basic risks on a voluntary basis.

Commitment to a location as loyalty factor

Even in the current difficult economic conditions, Duravit’s supervisory and management boards both pursue the same policy of not moving production from Western Europe to low-wage countries; rather, they wish to maintain the competitiveness of existing structures. This strengthens both the company and the employees as the expertise required to remain in the vanguard of design is only available at Western European sites. And, a company that is committed to a location is rewarded by the unconditional loyalty of its employees.

It’s easy to take the first step: starting work at Duravit

In Germany, Duravit currently provides training in a total of 20 different training and study courses, both in the commercial and the industrial sectors, and this portfolio is being constantly extended. To make it easier for young people to make the transition into the world of work, Duravit cooperates with different educational establishments and with numerous schools in the region. The trainers and instructors are also trained internally and given specific support. Duravit pays particular attention to ongoing cooperations with schools and higher education institutes,
whether as long-term, contractual cooperation partners or in the form of individual projects for specific target groups. Students can carry out internships or work on final thesis projects at Duravit. In addition, it offers placements to students and school children.

Various activities and events promote health and sociability

Duravit is particularly concerned about the health of its employees. This is reflected not only in comprehensive occupational health and safety measures for production and management. Duravit’s “I’m keeping fit” health campaign includes a wide range of massages, prevention courses, health checks and special membership offers at gyms. A variety of events, such as sports competitions, walking tours and parties to celebrate company anniversaries, also encourage social contacts.

Cultural knowledge is crucial: openness to different values, traditions and ways of thinking

Almost 20 years ago, Duravit’s international activities made up about five percent of turnover; today, this figure is about 77 percent. Progressive internationalisation ensures jobs in Germany but also presents the individual employees with new challenges: ranging from telephone calls to professional participation at international trade fairs, many employees today have contacts all over the world and have to be able to move around the globe. This demands not only mobility and a knowledge of foreign languages but also an understanding of different cultures, and this is something that is strongly encouraged at Duravit. This, too, is sustainable: only those who endeavour to understand different values, traditions and ways of thinking can hope to be understood in return – and to work together to shape the future.
In harmony with the environment. Duravit’s commitment.

The logo features the rarest bird in the Black Forest

The stylised wood grouse is a distinctive part of the Duravit logo. It was introduced as early as 1937 and was explained thus by the then managing director, Eduard Cronn: “The wood grouse is the largest, most beautiful and rarest bird in our forests. At all times, its image should carry greetings from our beautiful Black Forest homeland to all four corners of the world.” It is an attractive reference to Duravit’s attachment to its roots – and to how maintaining these roots has shaped the values of the company: ecological responsibility is today enshrined in Duravit’s guiding principles.

Duravit promotes Germany’s largest nature park

Against this background, it is not surprising that Duravit became involved as both sponsor and partner when the Naturpark Schwarzwald Mitte/Nord e. V. was first founded in December 2000. The Black Forest is one of the most beautiful landscapes in Germany and a holiday destination that is famous throughout the world. The nature park aims to conserve this beautiful area with caution and rationality. With a total area of approx. 375,000 hectares, the Black Forest Nature Park Central/North is the largest nature park in Germany. It is home to some 700,000 people living in 106 townships – one of these is Hornberg, the Duravit headquarters.

Leading the way into a sustainable future

In addition to the key areas of environmental and nature education, the park also promotes a contemporary tourism infrastructure. Of course, the Black Forest offers ideal conditions for active recuperation in a stunning, unspoilt natural landscape. This is why sustainable and eco-friendly offers have been created for hiking, Nordic walking and mountain biking. In addition, the nature park also helps to market regional products, such as the “Echt Schwarzwald” brand established in Ortenau, which markets high-quality agricultural products from selected producers in the Black Forest nature parks. All activities in the nature park are aimed at preserving the variety of the Black Forest and at leading the region into a sustainable future. Linking the nature park’s regular event days with an invitation to the “Day of the Bathroom” at Duravit is a valuable synergy.
Committed to nature, sustainability and social affairs all over the world

Duravit Memorial Forest: Duravit is not only committed to nature, sustainability and social affairs in its native Black Forest but also in other parts of the globe. In 2010, it purchased 3,500 square metres of land in Tuzla, Turkey, and planted 500 pine trees there, which are now actively producing fresh air. The new plantation was named the “Duravit Memorial Forest”.

Habitat for Humanity: In the USA, Duravit supports the “Habitat for Humanity” social programme, which helps socially disadvantaged families to help themselves. The families are selected irrespective of religion, gender or health, rather the key factors are their level of need, their willingness to participate and help their neighbourhood, as well as the ability to repay an interest-free loan in the long-term and to maintain their home. Thanks to material donations and the voluntary work of some employees, Duravit has enabled the construction of houses for four families.

La casa dels Xuklis: This establishment for children suffering from cancer who come from socially disadvantaged families is based in Barcelona and is financed by altruistic donations from public institutions, companies and citizens. Children and their carers can stay here free of charge for the duration of the therapy. The building was constructed according to bioclimatic criteria and uses renewable energies. Duravit donated the entire sanitary ceramics for the property, comprising 25 apartments and communal facilities.
In celebration of the opening of the exhibition at the ISH in Frankfurt, the work of Xiao Jun Wang, China, was awarded with a special prize from Duravit AG.
“Water is Life”: Duravit supports international poster competition as part of World Water Day

Duravit is main sponsor of the “Water is Life” international poster competition in which more than 5,000 artists from all over the world took part. The competition and the resulting exhibition are a joint project organised by the University of the Arts/Berlin and the Nanjing Arts Institute/Nanjing, the Normal University/Hangzhou and the German Central Sanitary, Heating and Air-conditioning Association (ZVSHK). Students and young artists from 83 countries got to grips with the topic and developed creative approaches and a wide variety of different motifs in order to bring the “Water is Life” message to a wide public. An international jury selected the best entries, which were then honoured at the ISH in Frankfurt/Main, the world’s leading trade fair for sanitaryware, heating and air-conditioning technology. So far, the works have been exhibited in Cape Town, South Africa as part of World Water Day, in Nanjing, China on the occasion of the Nanjing Water Day 2011 and in the Duravit Design Centre, Germany.

above: Presentation of the best works at the Duravit stand at the ISH in Frankfurt bottom: Bird whistle concert with children from the local music school in celebration of the vernissage at the Duravit Design Center
Behave yourself. Be an animal.

Water is life.
Water is life: a vital topic that stimulates creativity. The international jury finally chose three from the many inspired and inspiring posters. The first prize was won by Pawel Dadok, Poland (1), the special award of the president/ZVSKH was won by Aleksander Pujzu, Poland (2) and the Gentner special award by Xi Luo, China (3).
What drives us?
In conversation with Franz Kook, Management Board Chairman of Duravit AG.
Mr. Kook, there is increasing concern about the resource “water”. How can Duravit make a difference?

Over the years, there has been a change in the way in which people in industrial countries use water. Rising water and sewage costs are also a factor in the economical use of this resource. Duravit responds to this changing use of water with innovative technology. In the 1980s, Duravit was a pioneer in reducing the amount of water used by toilets to 6 litres and, for some models, even 4.5 litres. Urinals only need up to 1 litre, whilst the McDry urinal operates without any water whatsoever. Many Duravit bathtubs offer a comfortable interior paired with extremely economical water consumption.

However, we not only offer our customers environmentally-friendly solutions but we also use as little water as possible in our own work processes. Because we are convinced that it is important to further raise awareness for the issue of water, we became the main sponsor of the “Water is Life” project. More than 5,000 artists from 83 countries took part in the international poster competition and came up with creative methods and a wide variety of different motifs for communicating the “Water is Life” message. The competition aims to exhibit these works of art world-wide in order to bring the topic “Water is Life” to a broad public. This highlights how younger generations are prepared to bear their share of the responsibility for the world.

The sustainability of a product is becoming increasingly important on the market. How can you design new products so that they meet practical, economical and sustainable requirements? And what role does innovation play in this?

More and more consumers are recognising that the glut of low-cost products does not enhance quality of life and that they are squandering vast amounts of resources. We are seeing many consumers making more conscious decisions to buy and also that quality overrides quantity. This is also about augmenting quality of life and pleasure but without a feeling of guilt and not at the expense of others.

From development through to the selection of materials and production, Duravit focuses all its attention on environmental sustainability – starting with its designs that boast timelessly modern forms. Fashionable products with a short lifecycle are alien to our philosophy because durable products are required for the bathroom. As a bathroom has an average lifetime of 15 years, not only does the quality have to be right but the design also has to stand the test of time and, if at all possible, the owner should still like the bathroom, even after all these years. This is why we work with high-profile international designers and architects and do not chase short-lived fashion trends.

This high requirement also applies to practicality. The products have to meet the highest comfort requirements. We want to stand out from the competition. In reality, this differentiation means that we always have to be one step ahead of the others and offer different products with additional functions or features. So, with each product, we think carefully about what we can improve in order to offer users real added value and we are only satisfied when we really have succeeded in doing this.

Innovations play a key role. In 2008, we invested in a new development centre in Hornberg, which now houses the entire development expertise of the Duravit Group, including the application technology. The aim is to attain the same position in the field of innovation and technology that Duravit already occupies in design and so to secure the market position in the long term.
Is it possible to reconcile return on investment with sustainability?

As a company, we have to work profitably, which is why we also consider the economical aspects of every investment. The careful use of resources reduces our costs, even though we have to make initial investments in order to replace conventional technologies and methods or to modernise existing facilities. We invest in these new technologies in order to remain competitive in the long term. We cannot just focus on the short-term ROI; we also have to take sustainability into account. We have been pursuing this strategy for years at all of our production sites.

In which exemplary areas is Duravit AG investing?

In terms of manufacture, the facilities at all of Duravit’s production sites recycle the water required for the production process. When firing and drying the ceramics, Duravit returns the surplus heat straight back to the production process. When manufacturing bathroom furniture, all waste wood and chippings are recycled and used as fuel in the production facilities. In the coating filter system, the so-called doctor-blade technique is used to remove residue in an environmentally-friendly manner and this can then be disposed of without any problem whatsoever.

Anyone wanting to promote sustainable development often has to do a lot more than just comply with statutory environmental regulations, such as water consumption standards. How comprehensive are the technical and design approaches at Duravit?

In view of the dwindling resources and increasing water prices all over the world, a further reduction in water consumption is desirable, however, without any drop in hygiene or comfort for the user. We are definitely pushing the limit here. The six-litre flush for the toilet is now standard with almost all European manufacturers. Duravit also has the technical expertise for the 4.5-litre generation of toilets and we also offer these models. However, in all honesty, various points do have to be taken into account. I am referring in particular to the sewage pipes since the toilet is part of a complete system. Duravit urinals also consume less water: for example, the Architec urinal only requires 1 litre of water for perfect flushing. And it’s also possible to do without any water whatsoever: in the McDry urinal, a purely plant-based and thus biodegradable sealing liquid effectively prevents unpleasant odours.

The infrared-controlled proximity sensor for urinals and the thermostat-controlled taps in showers and bathtubs that reduce heating costs help to lower both water and energy consumption. Duravit offers intelligent answers to the question of whether it’s possible to take a bath without having a guilty conscience, offering bathtubs that, thanks to the optimum use of space, conserve our water resources. For example, the inside of the Paiova bathtub is ergonomically and intelligently shaped to ensure maximum bathing pleasure with minimum water consumption. Wherever it makes ecological sense, Duravit has been using resource-efficient illuminants and LED lighting for years.
The Duravit Group is headquartered in the idyllic Black Forest but is nevertheless at home in many countries throughout the world. What part of your native Germany do you take with you?

Duravit was founded more than 190 years ago in the heart of the Black Forest. Its deep roots in this extraordinary natural landscape have shaped the history of the company. This is why ecological responsibility has always been enshrined in Duravit’s guiding principles. All Duravit’s factories in Germany, France, Egypt, Turkey and China, as well as the central warehouse of Duralog Duravit Logistik GmbH in Achern, are certified in accordance with the ISO 14001 environmental management standard.

How are the in-house quality standards applied at the various production sites?

For Duravit, outstanding quality is an integral part of the brand – all over the world. During the course of the internationalisation of the Duravit brand, the different cultures and mentalities meant that it proved incredibly challenging to establish Duravit’s high quality and productivity requirements at all of our ten production sites. However, we were supported by selected teams of experts from other Duravit plants. Within a short period of time, we succeeded in establishing the ‘Made by Duravit’ international quality level all over the world. After all, we want satisfied customers all over the world who, even after years, still say, “I would buy another bathroom from Duravit.” We can, of course, only earn this loyalty by delivering top quality. And there’s no doubt it helps that, abroad, people generally associate properties such as sound, durable, reliable, powerful, innovative and high quality with German manufacturers.

Can a globally networked industrial company with regional roots also be a pioneer in promoting an awareness of natural resources? Can the ideas and conditions that differ from region to region be mutually beneficial?

As an industrial company, I believe it is very important that we promote awareness of the economical use of natural resources and of the reduction in emissions and waste at all of our sites. The exchange between the sites plays a very important role in this. The different cultures and mentalities can be mutually beneficial and they can learn from each other. For example, in India, where we opened our new factory in 2010, water is a very precious commodity. So, right from the beginning, employees treated this resource very differently and they all think about how they can reduce water consumption. On the other hand, most employees there have absolutely no awareness of the need to separate waste. Of course, we endeavour to establish the same high standards at all of our factories. In this way, the sites and the employees can learn and benefit from one another.

How is the idea of sustainability implemented internally with respect to employees?

In addition to communicating the strategic goals of sustainability, the way we treat our employees and their long-term loyalty to the company are, of course, other important aspects of sustainability.

For Duravit, management means giving employees a large amount of freedom to act upon their own initiative. The management style is cooperative, collegial, non-bureaucratic and team-oriented. This keeps Duravit flexible and innovative – a learning organisation with the dynamism to adapt to new challenges. Duravit endeavours to create a human corporate culture. This starts with flat hierarchies and ensures that all employees feel that they can actually approach their managers. However, it also includes the immediate working environment and tangible employee orientation.
In more specific terms, for example, Duravit started a comprehensive health campaign under the slogan "I’m keeping fit!" This includes a wide range of massages, prevention courses, health checks and special membership offers at gyms. However, we also offer a variety of events to encourage the people who work with us to socialise a little. For example, Duravit employees have now been involved in company-based sporting activities such as football, table tennis, bowling and mountain biking for more than 30 years.

For many years, Duravit has offered a company pension scheme in addition to the collectively negotiated pension scheme. As our employees travel to work from within a wide radius, we also grant travel allowances. Our support extends as far as subsidised vacation offers.

In addition, Duravit places a good deal of emphasis on training young people in 20 different apprenticeship professions and study courses, qualifying junior managers and providing wide-ranging further training for all employees. The doors to both professional and personal development are open to all and Duravit has always attached great importance to training.

Is ecological and social responsibility delegated within the company?

A few years ago, in order to effectively promote the ecological and social awareness of each individual employee, regardless of position, hierarchy or decision-making authority, we introduced Duravit Innovation Internal, the in-house suggestion scheme (abbreviation: Dii). In 2011, we started one of the biggest campaigns in the history of Dii. It was all about waste and the more conscious use of resources. How can we avoid waste? Each employee, whether in production or administration, was asked to put his/her workplace, department, methods and procedures under the microscope. The respective heads of department were involved in the processes and informed and explained to employees what it was all about and encouraged them to take part. They are also involved in evaluating and implementing the suggestions for improvement.

Finally, let’s just take a look at the bathroom of the future: what does it look like? In other words, how much water is needed in order to ensure maximum comfort and hygiene at the same time as minimising the use of resources?

The bathroom is a place to unwind. This also means being able to rest assured knowing how sustainable and environmentally friendly the products used actually are. However, like so much in life, there are two sides to this. Of course, when developing new products, Duravit considers the environmental impact of all aspects and looks at how resources can be saved. For example, just 4.5 litres of water are now needed to flush the toilet compared with the previous 12 litres. Or intelligent bathtub design can be used to keep water consumption within reasonable limits.

However, whatever the economy measures introduced, this must not come at the expense of quality of life: for example, water, which can be saved when flushing the toilet without compromising on comfort, can be used without any compunction wherever wellness products generate a sense of personal wellbeing and promote the health of the user.
EN ISO 9001 specifies the minimum requirements of a quality management system (QM system) that an organisation has to meet in order to be able to offer products and services that meet both customer expectations and regulatory standards. At the same time, the management system has to be subject to a continuous improvement process. All Duravit factories are certified in accordance with EN ISO 9001.

Based on ISO 14001 and EN ISO 9001, the British standard OHSAS 18001 (Occupational Health and Safety Assessment Series), which is applied in more than 80 countries, is the most well known international standard for an occupational health and safety management system for the planned, organised and consistent implementation of a demonstrably sound health and safety performance. The Duravit factories in Cairo (Egypt) and Chongqing (China) are certified in accordance with OHSAS 18001.

The ISO 14001 environmental management standard specifies internationally recognised requirements of an environmental management system with regard to ecological balances, environmental values, etc. Both manufacturing and service companies can attain this standard. All Duravit’s factories in Germany, France, Egypt, China and Turkey, as well as the central warehouse of Duralog Duravit Logistik GmbH in Achern, are certified in accordance with ISO 14001.

The WaterSense label introduced in 2006 by the US Environmental Agency (EPA) recognises products with particularly efficient water consumption and applies exclusively on the US American market. A large number of Duravit’s toilets and urinals have been awarded this label and thus carry the distinction HET (high efficiency toilet) and HEU (high efficiency urinal) respectively.

The Underwriters Laboratories test and certify products and individual product components. UL certification is mainly relevant for the US American market. The Demko test institute tests and certifies products in accordance with UL standards.

The Dekra Institute awards Dekra certification in accordance with an IP 44 protection class test.
The ISO 50001 environmental management standard specifies the requirements for introducing, implementing, maintaining and improving an energy management system. It helps companies to continuously improve their energy efficiency by taking a systematic approach. Duravit’s Meissen factory is already certified in accordance with ISO 50001. By 2012, all European production sites, as well as the factories in Turkey and China, are to receive the certification.

Marcelli, Bronx, NY, USA
Ariana, Charlotte, NC, USA
Carnegie Library, Pittsburgh, PA, USA

Since the European product standards entered into force, the CE marking obligation for construction products ensures that the said products meet statutory requirements. Of course, the products of the German sanitary-ceramic industry have always met these requirements. Each product that carries the CE mark has a declaration of conformity. In the event of any concerns, this certificate can be requested from the manufacturer or importer and checked.

The Verband deutscher Elektro-Informationstechnik (German Association for Electrical, Electronic & Information Technologies) develops and adopts environmental and safety test criteria for electrical and electronic products. As one of the largest European associations, the VDE is an international platform of experts for science, standardisation and product testing for all industries and professions operating in the field of electrical and information technology.

EMC tests ensure the electromagnetic compatibility of a product. This includes investigating the immunity of a device or system to external faults. All current-carrying Duravit furniture is subject to an EMC test. Duravit AG has made it a declared company policy to ensure that all electrically-operated Duravit products are subjected to an electrical safety test in accordance with the respective product category and standards.

Siemens, Gebze Fabrikasi, Turkey
Silver Tower, Frankfurt, Germany
Tekfen Holding Headquarter, Istanbul, Turkey
Theiner’s Garten Bio Vitalhotel, Gargazon, Italy
ThyssenKrupp Quartier, Essen, Germany
Triton-Haus, Frankfurt, Germany
Varyap Meridian, Istanbul, Türkei
Waterhouses – Wohnen am Inselpark, Hamburg, Germany
Norman Mineta International Airport San Jose, CA, USA
Pacific Lutheran University Parkland, WA, USA
Trump Towers – Miami, FL, USA
Oregon State University Corvallis, OR, USA

Certified buildings featuring Duravit products:

One Jackson Square, New York, NY, USA
Opern Plaza, Hamburg, Germany
Princess Elisabeth Base, Utsteinen Nunatak, Antarktis
Revel Casino, Atlantic City, NY, USA
For the sake of the environment: Duravit ensures optimum environmental compatibility even in the production of this brochure.

Ecological paper production: The paper used for this brochure was made in conformity with the guidelines for the EU Ecolabel. It is made of 100% recycled paper derived from wastepaper and paper obtained from sustainably managed forests as certified by the FSC (Forest Stewardship Council). No environmentally-harmful chemicals, colorants or bleaching agents were used. In this way it also complies with the strict regulations of the Blue Angel environmental label.

Sustainable printing process: The brochure was printed in an environmentally sustainable manner using organic inks made from vegetable oils and renewable raw materials to make them more easily biodegradable. The energy required for printing comes exclusively from hydroelectric power plants. In addition, attention was paid to CO₂-neutral printing. The emissions were offset by a certified climate protection measure (First Climate Gold Standard) in the field of wind energy.