



Thinking and Acting
Responsibly
Sustainability Report
2012

This report focuses on the companies:

- Knauf Gips KG
- Knauf Deutsche Gipswerke KG
- Knauf Integral KG
- Knauf Bauprodukte GmbH & Co. KG

When reference is made in this report to "Knauf" or the "company", this always means the above-mentioned partnerships of Knauf Group Germany.

Dear readers,

This is the first sustainability report of our companies Knauf Gips KG, Knauf Deutsche Gipswerke KG, Knauf Integral KG and Knauf Bauprodukte GmbH & Co. KG. This report is not just a clear affirmation of commitment to our social responsibility. It also vividly and transparently documents the areas we are involved in and the projects through which we practice sustainability every day. We see an unbreakable link in this regard between ecology, economy and social commitment.

"Thinking and Acting Responsibly"

As a family business, sustainability is a tradition for us and firmly rooted in our corporate values. Commitment to these values means accepting responsibility – for our customers, for protecting the environment and for our employees.

Difficult economic times show us that companies that operate sustainably and responsibly will be successful in the long term. Sustained success is not possible without responsible use of natural resources. This was and is one of the most important corporate objectives of Knauf and will also remain so in the future. We will play our part in ensuring an intact environment and secure livelihood for future generations. Since our company "Rheinische Gipsindustrie und Bergwerksunternehmen" was founded in 1932, conservation of nature, despite mining activities, has been a top priority.



Alexander Knauf, Manfred Grundke
Managing Partners

"I am Knauf"

Our success also depends on how we interact with our partners and society and strengthen social cohesion. We are therefore proud of the fact that we have remained a classic family business despite the current size of the company, innovating and investing with short decision-making paths and courage of conviction. However Knauf is more than a company. It is 24,800 personalities working in harmony together and striving to achieve both the small and large objectives as one. To do this, we rely on the expertise and dedication of every single employee. They are guided by our Knauf values: Menschlichkeit, partnership, commitment and entrepreneurship. All of our employees put their individual stamp on Knauf and its corporate culture every day and everywhere in their own special way. This has been the key to progress in the past 80 years and will continue to be our recipe for success in the future.

Together with our partners we want to make sustainability the main guiding principle for our actions. In this regard we encourage close dialog and open discussion with all those who value our company. Our first sustainability report should therefore be an important milestone.

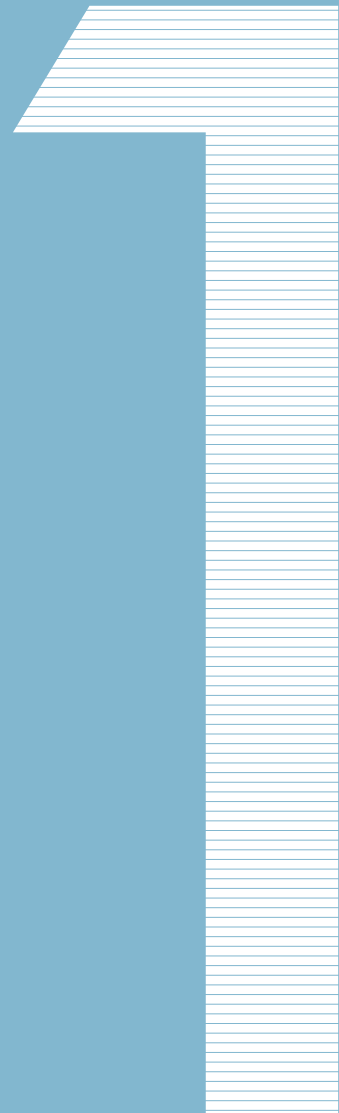
Alexander Knauf, Manfred Grundke
Managing Partner

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Knauf – Company profile

As a family business, Knauf combines tradition, sustainability and a forward-looking approach. Knauf is guided by its corporate principles of *Menschlichkeit*, partnership, commitment and entrepreneurship. They act as an inner compass for employees and provide a basis for success. Knauf is well prepared to meet the challenges of the future thanks to innovative products, a strong customer focus and resource efficient production.





Headquarters of the Knauf Group in Iphofen

From family business to corporate family

Based in Iphofen, Knauf is a leading international manufacturer of building materials. The family owned business operates with numerous companies at more than 150 locations in over 60 countries.



Nikolaus Knauf, Manfred Grundke, Alexander Knauf, Baldwin Knauf (from left to right)

Knauf plants produce modern drywall systems, plasters and accessories, thermal insulation systems, paints, leveling screeds and floor systems, machines and tools for applying these products as well as insulation materials.

The Knauf Group generated approx. EUR 6.2 billion in 2012 with a workforce of some 24,800 employees. It invested some ten percent of its turnover globally in new facilities in 2012, thereby adapting production capacities to meet ever-increasing future demand.

At the helm of the Knauf Group are Managing Partners Manfred Grundke (since 2008) and Alexander Knauf (since 2013). Nikolaus Knauf and Baldwin Knauf joined the

Shareholders' Committee in 2008 and act as Chairman and Vice Chairman on an annually rotating basis.

Complete systems used worldwide

Gypsum and gypsum based building and insulation materials from Knauf are manufactured and distributed around the globe. The Group's operating range extends in this context from Europe to the U.S., South America, Asia through to Africa and Australia.

Innovative thinking and openness to technological innovations are the cornerstones of the corporate strategy. Knauf strives constantly to achieve further improvements in the quality and efficiency of construction and modernization. This has given rise to coordinated complete systems that are both economical and offer optimal fire safety and noise prevention, outstanding energy efficiency and a variety of creative options for creating space.

Strong companies at a glance

In its first sustainability report, Knauf is concentrating on the following companies of Knauf Group Germany:

- Knauf Gips KG
- Knauf Deutsche Gipswerke KG
- Knauf Integral KG
- Knauf Bauprodukte GmbH & Co. KG

Knauf employed around 2,500 people in these companies in 2012.

Knauf Gips KG

Knauf Gips KG specializes in drywall, plaster, floor and facade systems. Knauf drywall construction systems are synonymous with high-performance noise prevention, fire safety and heat insulation in floors, walls and ceilings. Flowing and self-leveling screed from Knauf guarantees rapid construction progress for floors. Knauf plasters include classic brands such as Rotband, MP75, SM700 or Rotkalk.

The External Wall Insulation Warm Wall Systems are available for facades for ensuring energy-efficient design.



Production plant Iphofen II

Knauf Bauprodukte GmbH & Co. KG

Knauf Bauprodukte GmbH & Co. KG is one of the leading providers of interior construction in the Do-It-Yourself area. Knauf offers DIYers construction products from drywall systems to plasters and smoothing compounds such as the Rotband range or Knauf EASYPUTZ through to complete systems for laying tiles and natural stone – everything they need to custom-design their homes.

Knauf Deutsche Gipswerke KG

After the political changes of 1989/90, Knauf acquired the Rottleberode plant so that it could produce in the new federal states of Germany and gain a foothold in the market there. This location was modernized comprehensively in the subsequent years and extended by additional production facilities. The Spremberg plant was established and commissioned in 1995. The production program includes products for drywall construction, plasters and profiles.

Knauf Integral KG

The core competency of Knauf Integral KG lies in the extremely compacted and therefore highly durable gypsum fiber material GIFAtec. It allows flexible, economical and contemporary interior fittings in line with exacting requirements. GIFAfloor floor systems allow fast and dry installation of various types of floor constructions for example. GIFAtec can be found in prestigious projects around the globe thanks to its versatile construction and finishing options in terms of both form and design.

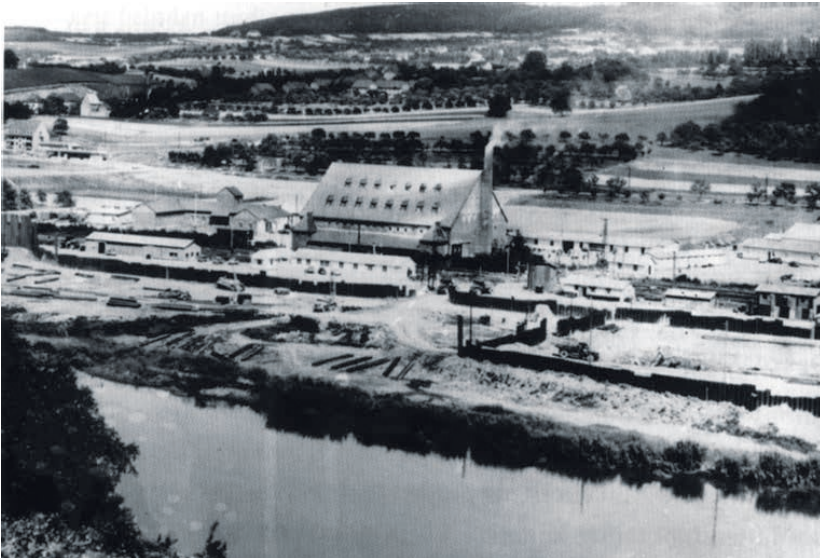
Knauf plants in Germany*



* Locations of the companies mentioned in this report

Growing and developing: Milestones in the company's history

The Knauf family business has its roots in Saarland and in neighboring Luxembourg. The two brothers and mining engineers Dr. Alfons Knauf and Karl Knauf had the vision to convert the natural raw material gypsum to allow people to build faster, better and more efficiently. They began to put their ideas into practice in what was then the middle of the Great Depression and founded the company Rheinische Gipsindustrie und Bergwerksunternehmen in 1932. They acquired exploitation rights in their home region for a gypsum mine in Schengen in Luxembourg and opened the first gypsum plaster plant in Perl an der Mosel.



First gypsum plaster plant in Perl an der Mosel

New beginning in Iphofen

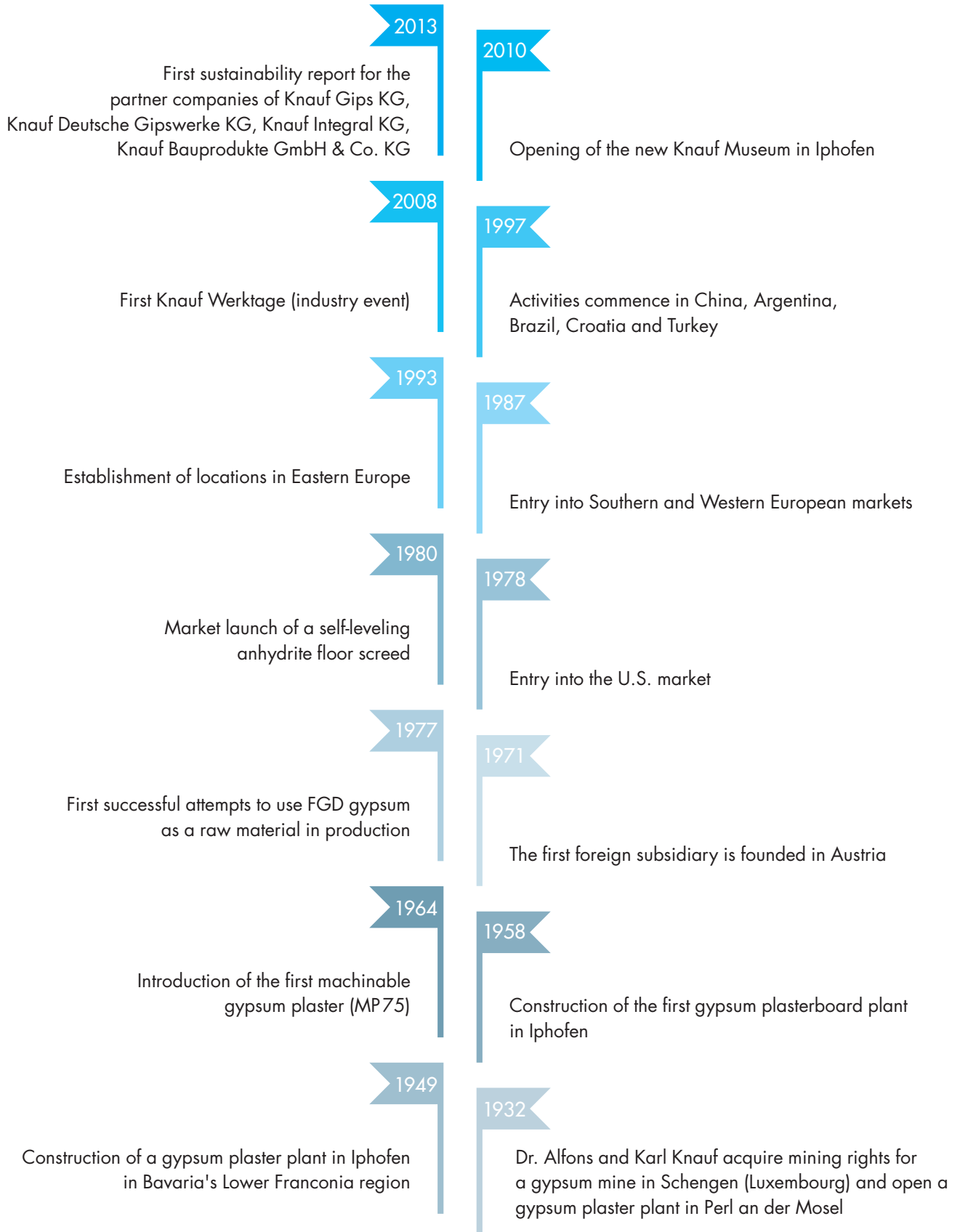
The founding of the Federal Republic of Germany in 1949 also heralded a new chapter in the company's history. Production began with gypsum plaster in the town of Iphofen in Northern Bavaria, where the headquarters of the Knauf Group can still be found today, with the first gypsum boards then being produced there from 1958. The small business experienced dynamic growth during the period of the "economic miracle" in Germany, which saw it develop into a corporate family with companies operating around the globe.

Knauf has remained a classic family business to this day. Its success can be attributed primarily to short decision-making paths, courage to innovate and invest and the industriousness and imagination of all Knauf employees.



Barbara-Feier 1932: seated in front Dr. Alfons Knauf (4th from left), Mathias Knauf (5th from left) and Karl Knauf (6th from left)

Milestones in the company's history



The four Knauf values

Values as a basis for sustainable action

Knauf is firmly convinced that only a company founded on values can provide the assurance of sustained growth and solutions to meet the challenges of the future. These are the principles on which the company was founded and by which employees still act to this day.

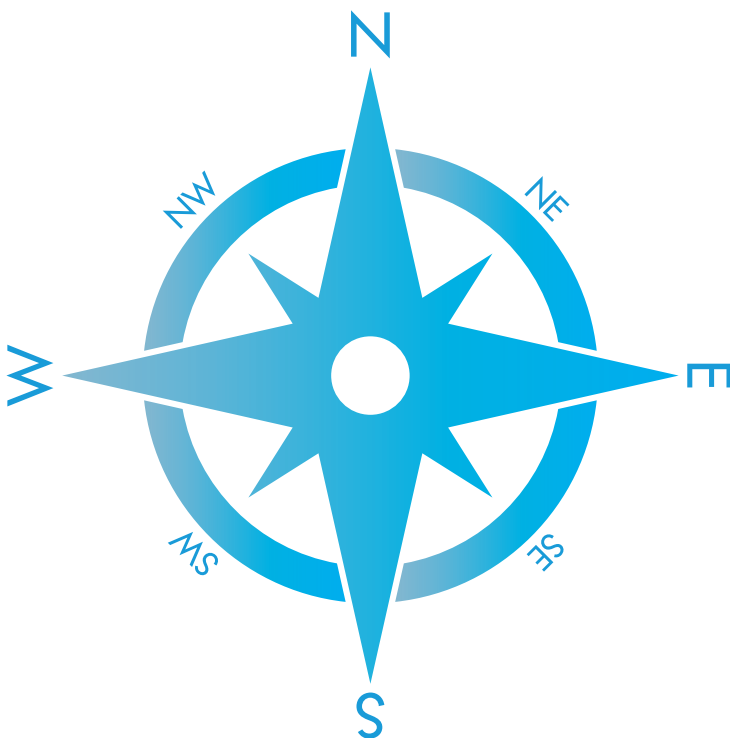
Inner compass provides guidance

These values were reformulated in 2012 and established in the form of an inner compass that is relevant for the entire Knauf Group. The values that build on the vision and mission of the company were developed in cooperation with the Knauf family, who initiated this process.

Internal communication reaches all employees

A number of campaigns were carried out to reach out to all employees. This not only involved training regional project managers as ambassadors of values in the company, but also a broadly based communication campaign with letters to employees, team workshops, a film and a website.

Knauf intends not only to preserve its tradition through these values but to also continue to develop the company, extend its market position, develop new business models, increase its financial power as well as attract skilled workers and managers.





Menschlichkeit

We see our colleagues, our business partners and our stakeholders as part of a big family where traditional principles of integrity and humanity still count. By treating each other fairly and by embracing diversity, together we act with social responsibility. We take care of each other, of society and of the environment.



Partnership

We work to create an environment of mutual trust. This means that we are encouraged to take on individual responsibilities and make decisions, because we trust each other's judgment. We are one team. We are loyal. We support each other and all the members of the Knauf community.



Commitment

We are committed to our work, our colleagues and our community. Taking pride and pleasure in what we do comes natural to us. We always go the extra mile, achieve sustainable results and provide our customers with high quality solutions. Knauf offers real opportunities for personal growth and development, helping to create a successful team.



Entrepreneurship

Through an entrepreneurial style and a willingness to take risks, we have successfully grown from a small family company into a family-owned, globally active organization. Our continued success is driven by a spirit of pioneering, innovation and change combined with a pragmatic and results-oriented approach.

Sustainable solutions required

Knauf faces a variety of challenges in its social and economic environment. The company tackles these and strives to develop innovative solutions in response.

Climate change is increasing the need for action

Conditions in the building sector – and therefore also the development potential for Knauf – are determined largely by political climate protection objectives and the turnaround in energy policy. Increasing CO₂ emissions, high energy costs and diminishing resources are increasing the pressure to act with respect to energy efficiency and use of renewable energy sources. Binding targets have therefore been formulated politically at both national and European level: The EU wants to reduce annual greenhouse gas emissions by 20 percent by 2020 compared with 1990. The Federal Government has even stated a 40-percent reduction as its goal in this same period.

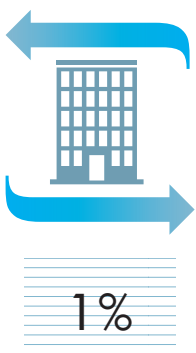
Energy efficient building refurbishment is the order of the day

The building sector is one of the areas that offers the best potential for achieving these objectives. This sector ultimately accounts for some 40 percent of energy consumption in Germany (Source: Federal Ministry of Transport, Building and Urban Affairs, 2012). At the same time there is a considerable modernization logjam: Two thirds of buildings in Germany were constructed prior to 1979 (source: Federal Ministry of Transport, Building and Urban Affairs, 2012). Only a small number of these have been refurbished to date in relation to energy efficiency. The annual refurbishment rate in the building sector is currently just one percent – not good

enough to reach the reduction targets (source: German Energy Agency, 2011). The Federal Government therefore wants to at least double the refurbishment rate. This is to be done in the form of both regulatory measures, such as more stringent energy saving regulations, as well as support programs for the energy efficient refurbishment of buildings. Its long-term goal is to achieve a climate-neutral building stock by 2050. The EU has already anticipated this in relation to new builds: The European "Energy Performance of Buildings Directive" (EPBD) calls for implementation of the passive house standard by 2020.

Sustainability standards prevail

These changes present major challenges for private and public property owners as well as builders, planners and architects. They have to decide when constructing new properties or modernizing existing ones, which construction measures to adopt to ensure compliance with the requirements and make use of funding programs. The building materials industry has a particular responsibility here to offer convincing solutions. It has to ensure greater energy efficiency but at the same time comply with strict requirements for living comfort, accessibility, flexibility and cost optimization. These criteria are being expressed in a bundled way in the form of certified standards for sustainable construction, which are gradually starting to prevail in international real estate markets. These include for example the quality seal of the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB) and the international classification system LEED (Leadership in Energy and Environmental Design). Hand in hand with the trend toward certification, there is an increased need for action on the part of manufacturers to provide information quickly and transparently on the sustainability impact of their building products.



This represents the annual refurbishment rate in the building sector in Germany at present.

Companies have to improve energy efficiency

Improvements in energy efficiency and climate protection are not only becoming increasingly important in the building sector. Industrial companies like Knauf who engage in energy-intensive production also have to face this task. This is not just the consequence of increased climate change responsibility but is also being driven by business needs in the light of increasing energy prices. Politicians are also calling for a change in direction in this area. Introduction of certified energy management systems in companies that have a high energy consumption is therefore being demanded at a political level.

Conserving resources by recycling

It is not just businesses in the energy sector that are confronted by a broader efficiency imperative. All companies whose products rely on the processing of natural raw materials are obliged to pay special attention to resource conservation and material efficiency. Rigorous exploitation of natural resources is not justifiable from a sustainability perspective because it curtails the leeway of future generations. This is the case despite the fact

that resources for building materials, such as gypsum, are available for long periods in storage facilities.

The requirement to conserve resources focuses attention on innovative procedures, which are based on one hand on methods for manufacturing synthetic gypsum as a by-product. On the other hand, emphasis is also placed on the re-use of existing materials in a closed material cycle.

In most cases this is not just more cost effective and energy efficient, but also complies with legal obligations as were introduced with the Waste Management Act (Kreislaufwirtschaftsgesetz) in 2012. In this way the Federal Government intends to work toward its goal of doubling resource efficiency in Germany by 2020 compared to 1994.

Preserving natural habitats

Extraction of raw materials at or near the surface is also subject to critical public scrutiny. This is because it constitutes an interference with nature and the habitat of plants and animals. The raw materials industry is therefore coming under pressure to implement these projects in as environmentally friendly a manner as possible in accordance with applicable regulations. At the same time it is important to exploit the potential offered from recultivating and renaturing the areas used so that a comparable or even greater biodiversity can be achieved. Close cooperation with the relevant specialist authorities, the scientific world and conservation organizations is essential here in the same way as broad social awareness training to reconcile resource extraction and environmental protection.



The recycling of construction materials plays its part in conserving resources



Industrial enterprises are increasingly looking for qualified female professionals

Strategies to combat the shortage of skilled labor



6.5 million

This represents the expected labor force shortage in Germany by 2025

It is not just energy and environment-related topics that are among the most important challenges facing Knauf. Changes in society mean companies are having to develop new strategies and solution approaches. One of the key processes in this regard in Germany is demographic change with an ever-decreasing proportion of young people. This is set to exacerbate the problem of skills shortage. This shortage will amount to some 6.5 million in Germany alone by 2025 (source: Federal Employment Agency, 2010). This intensifies competition for well trained and high performing employees and is forcing companies to introduce counter-measures to minimize the risk of a skills shortage. This primarily involves stronger profiling as an employer in the area of HR development and recruitment. Priority areas of action in this respect include tar-

geted further education and training programs, attractive career opportunities, effective health care management and flexible working hours to create a better work/life balance. Industrial enterprises with a high percentage of specialist staff in typically male-dominated professions are also faced with the task of motivating young females to opt for a career path in the area of science and technology.

"Sustainability represents a major opportunity"

Interview with Alexander Knauf

The importance of sustainable action is increasing in all areas of life. What special responsibility does Knauf have?

"First of all, we see an unbreakable link between economic success and responsibility for the environment and society. Sustainability therefore pays. This is reflected for example in energy efficiency and climate protection where we are making huge efforts. We are supporting energy efficient building refurbishment with our products and systems. This helps save energy and reduce CO₂ emissions. There are significant market opportunities here given the enormous modernization logjam in the German building industry. We are also taking action in our own company however, for example with the renovation of administration buildings, the introduction of a certified energy management system, the acquisition of green electricity and the use of energy efficient combined heat and power plants. In addition, we focus on resource-friendly production with environmentally-compatible recovery of natural gypsum, synthetic gypsum from industrial flue gas desulfurization (FGD) plants as well as recycling gypsum as a secondary raw material."

What do your customers and partners think? Do they demand greater sustainability from products and systems?

"The trend is moving clearly in the direction of sustainable construction with corresponding certification based on recognized standards. The demand for sustainable products and systems is therefore also growing among our partners in the specialist trade and in building materials supply as well as among architects and planners. They are in turn responding to increased demand from housing associations, hospitals, schools and public administrations. Together we can attract interested target groups who are urgently seeking convincing solutions for sustainable building usage. Energy efficiency is just one component of this. It is just as important in this context to fulfill socially appropriate standards in relation to living comfort, hygiene, room climate, noise insulation and fire safety. Flexibility of room usage should also not be overlooked and is something that can be achieved particularly simply and efficiently with our drywall construction solutions."

How important is your concept of "Knauf Blue" in this respect?

"The green building concept deals with just one aspect of sustainable building quality. 'Blue' represents an integral approach from our perspective. This concept brings together aspects such as technical efficiency, economy, ecology and social culture as well as conservation of natural resources in one unit. Our separate www.knauf-blue.de website additionally bundles a wealth of information concerning the topic of sustainability at Knauf: from databases to our sustainable products and systems as well as environmental declarations through to current project examples of our entrepreneurial commitment. There is something here for everyone interested in sustainability made by Knauf."



Alexander Knauf, Managing Partner of the Knauf Group

Is sustainability realized differently in a family business than in company group structures?

"Different in some cases, perhaps even better. Family businesses such as Knauf think and act long-term, are flexible, make decisions quickly, have flat hierarchies and trust their employees to take on responsibility at an early stage. Moreover, our success is based on our focus on solid values and a corporate culture of togetherness. This is palpable everywhere, even if we have evolved from a family business to a corporate family with many international locations and market activities. I will ensure that these Knauf values remain the guiding principle for our actions in the future also and are actively practiced in all areas of the company."

What role do employees play in relation to sustainability, where are their ideas sought?

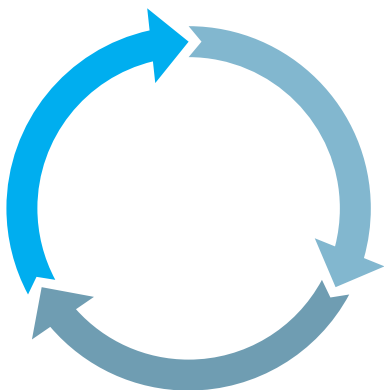
"I am delighted that our employees actively engage in making Knauf an even more sustainable company. An excellent initiative for example was the first Knauf sustainability day, which we hosted last year in Iphofen. Our employees enthusiastically set about implementing their own ideas for environmentally-friendly mobility, healthy nutrition and physical exercise. This shows that sustainability has become a labor of love at Knauf. Suggestions for improvement are sought and also demanded in our everyday work. Conserving energy is one of the topics that everyone can contribute to. From the company's perspective, we will continue to encourage this commitment, primarily through specific further education and training measures."

The first sustainability report is a good performance record of the company. Which objectives has Knauf set itself for the future?

"Our motto is: There's nothing that cannot be improved on. What is important for us is to collaborate ever more closely with our customers so that we can actively exploit the market opportunities offered by sustainable products and systems. To this end we will continue to drive our innovations and engage intensively in delivering even better conditions for building refurbishment. We also want to develop as an employer and strengthen employee satisfaction, in other words enhance family friendliness, consolidate further education and training measures and support health promotion. In this way we will also succeed in encouraging young people – and in the future more women also – to come work at Knauf. We want to give them increased responsibility and encourage more women to take up management positions. And we want to increase our environmental commitment: We will continue to reduce emissions, save energy and leave nature after mining gypsum in a better state than what we found it. Our goal is also to communicate our sustainability activities more transparently not only in Germany, but to incorporate the initiatives of all international locations of the Knauf Group in the process."

Sustainability objectives of Knauf

While the company is actively involved in many aspects of sustainability there are a number of areas where Knauf still has some catching up to do. The company has therefore set itself binding targets and will be judged in the future by the extent to which it achieves these.



Economic:

↑ Growth

We think long-term and in generations. Safeguarding the company into the future is therefore a principle that is firmly rooted in the corporate strategy. Our customers and their needs are the focal point of our activities. Excellent relationships with our customers and the high quality of our products and services are the basis for our business. Innovations underpin market success and new growth and therefore safeguard our future.

↑ Innovations and knowledge network

Innovations are an essential component for the future of our company. We promote ideas and innovations through the setting up and enhanced development of a Knauf Knowledge Management System and by securing and improving knowledge transfer in the Knauf Group.

↑ Energy efficiency

Many of our production processes are energy intensive and have a noticeable impact on our manufacturing costs. Improving the energy efficiency of our production facilities was therefore always one of the most pressing tasks for optimizing our production. By investing heavily in new and uniform energy measurement technology in our plants, we are moving one step closer to ensuring optimal control of energy usage. By installing combined heat and power plants, we can increase the amount of power we generate ourselves and by using waste heat we can increase overall effectiveness significantly.



Ecological:

↑ Recycling

Knauf is working intensively in the Eurogypsum G2G (Gypsum to Gypsum) project. This project aims to develop a strategy at European level as well as corresponding standards for increasing the use of recycled gypsum. This represents a further step toward closed loop recycling management and will help to conserve natural resources in the future.

↑ Environmental product declarations

Environmental Product Declarations (EPD) were created in recent years at association level for the most important products. We are striving to generate such declarations to cover other products and systems to ensure transparent communication of environmental performance.

↑ Renaturing and biodiversity

We support the development of knowledge with respect to renaturing mining sites and biodiversity. This is encouraged through staff reinforcement and continuous education and training as well as interaction with conservation organizations. We want to play an ever increasing role in ensuring protection of nature and the return of mining areas to nature.



Social:

↑ Knauf employees

We want to increase the number of trainees in order to counter demographic change and the associated shortage of skilled labor. We want to give young people a good, practical education through the introduction of dual study courses. The percentage of females should be increased at all organizational levels. This should be achieved on one hand by increasing the attractiveness of Knauf as an employer and on the other hand by offering increased part-time work opportunities. This should ensure straightforward re-entry into professional life and reconciliation of family and working worlds.

↑ Further education and training

Employees and their skills are our greatest asset. We are therefore focusing on intensifying further education and training for our employees. We plan to achieve this goal through individual advancement based on employee appraisals and demand-driven promotion in the framework of the Knauf education program.

↑ Customer relationships

We want to improve communication and cooperation with our customers so that we can respond more specifically to their needs and wishes. Expanding the existing partner/dealer concept is a further step in this direction. The Knauf Academy, which runs training programs and seminars for our customers, is planning improvements and additions to the training offer.



Knauf – Winner of the Mainfranken sustainability award

Knauf Gips KG was one of four winners to receive the "Mainfranken Sustainability Award", which was conferred by Region Mainfranken GmbH for the first time in 2012. The company won the prize in the category for "Over 250 employees".

Region Mainfranken GmbH distinguishes employers who act as role models in practicing sustainability management. The panel praised the diverse range of operational measures from Knauf in the area of environmental and climate protection. The building materials manufacturer ensures permanent energy efficient enhanced development of its products and production procedures through sustainable management. Sustainability aspects play an important role as early in the process as the recovery of gypsum. Through close integration of cutting-edge energy technology and intelligent processes, Knauf ensures that gypsum will be available in the future as an environmentally friendly building material. Natural resources are conserved through extensive use of FGD gypsum. The mining of natural gypsum occurs in quarries, which are recultivated and renatured consistently following gypsum mining. Generally speaking the areas even exhibit a higher biodiversity afterwards than before the mining of gypsum began. The transport processes at Knauf are also characterized by consideration for environmental and climate protection. The company clearly demonstrates what sustainable mobility behavior is based on utilization and route optimization of trucks, emphasis on rail transport for continuous supplies of raw materials or consideration of requirements for freight forwarders in terms of the use of pollutant- and noise-reduced engine technology.

Energy efficient refurbishment in the most varied building complexes as well as the intensive use of regenerative energies are further examples of sustainability in practice. We were therefore able to save 400,000 liters of light fuel oil and 1,000 tons of CO₂ for example through use of geothermal energy, installation of innovative light shafts to optimize utilization of daylight in interior areas, improvements in building insulation and the use of air-handling equipment.



Dr. Claus Peter Berneth (Head Knauf Market Management) and Ursula Schroll (Knauf Market Management) accepted the winner's trophy in Würzburg

The efforts of Knauf are rounded off by strong social commitment in relation to sustainability, which also includes associations and own employees. This is visible for example through membership of the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB) and the Landesbund für Vogelschutz, support for diploma theses on sustainability-related topics and through commitment to sustainable use and reuse in the area of regional planning and nature conservation. The first sustainability day in July 2012 created awareness among employees of the fact that sustainability is not just a corporate task, but starts essentially with every individual.

Sustainable products

Knauf is committed through the framework of its corporate values to creating products of the highest quality. The company will fulfill this commitment through its leading role in research and development and a comprehensive quality management system. Transparent product identification demonstrates here that Knauf meets the strictest standards in relation to environmental compatibility, sustainable building usage and safety.



Gypsum products – functional, resource-friendly, reliable

Gypsum products have a good record when it comes to sustainability. And this is not just because of the resource-friendly manufacturing processes, but also the unique suitability of the building material for recycling. Gypsum demonstrates features that significantly increase the sustainability of buildings with respect to economic, environmental and social aspects.



Gypsum crystals below the earth's surface

Natural raw material

Gypsum is a versatile raw material that has been used for thousands of years by people owing to its efficient recovery and processing. With a comparatively low firing temperature, gypsum can not only be manufactured with ease but also economically in terms of energy usage. As demands for building sustainability grow, gypsum becomes ever more attractive.

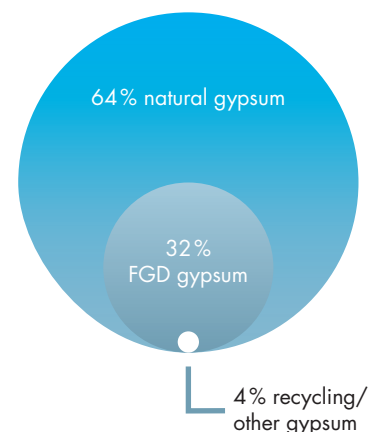
The white natural rock was created during a number of geological ages between 100 and 200 million years ago. Its chemical name is calcium sulfate dihydrate with the formula $\text{CaSO}_4 \times 2\text{H}_2\text{O}$. It is one of the salts dissolved

in seawater. Over the course of the earth's history, flat and partially isolated sea basins were continuously formed from which the gypsum sedimented through evaporation of the sea water and was deposited on the sea floor. Current findings from South Australia demonstrate that it is essentially a renewable mineral. For example, these studies shown that it is growing at a rate of a few centimeters per year.

As the gypsum became covered by other earth layers and was subjected to high pressure and temperatures at a great depth, it lost its chemically combined water, thereby forming anhydrite (CaSO_4). When the anhydrite came close to the surface again through movements of the earth's crust and erosion, it gradually changed back into gypsum rock by absorbing rainwater or groundwater. Both of these natural products are essential in the manufacture of gypsum products. Gypsum and anhydrite are often found in interconnected deposits and are recovered as an important raw material by pit mining and underground mining. The rough stone is produced by blasting and then selected, crushed and supplied for processing. Knauf has more than 60 stone quarries worldwide to cover its needs.

The alternative: FGD gypsum

In addition to mining of the primary raw natural gypsum, another variant of gypsum recovery has been used for more than two decades in the form of FGD gypsum. The abbreviation



Ratio of gypsum quantities used, at Knauf plants in Germany

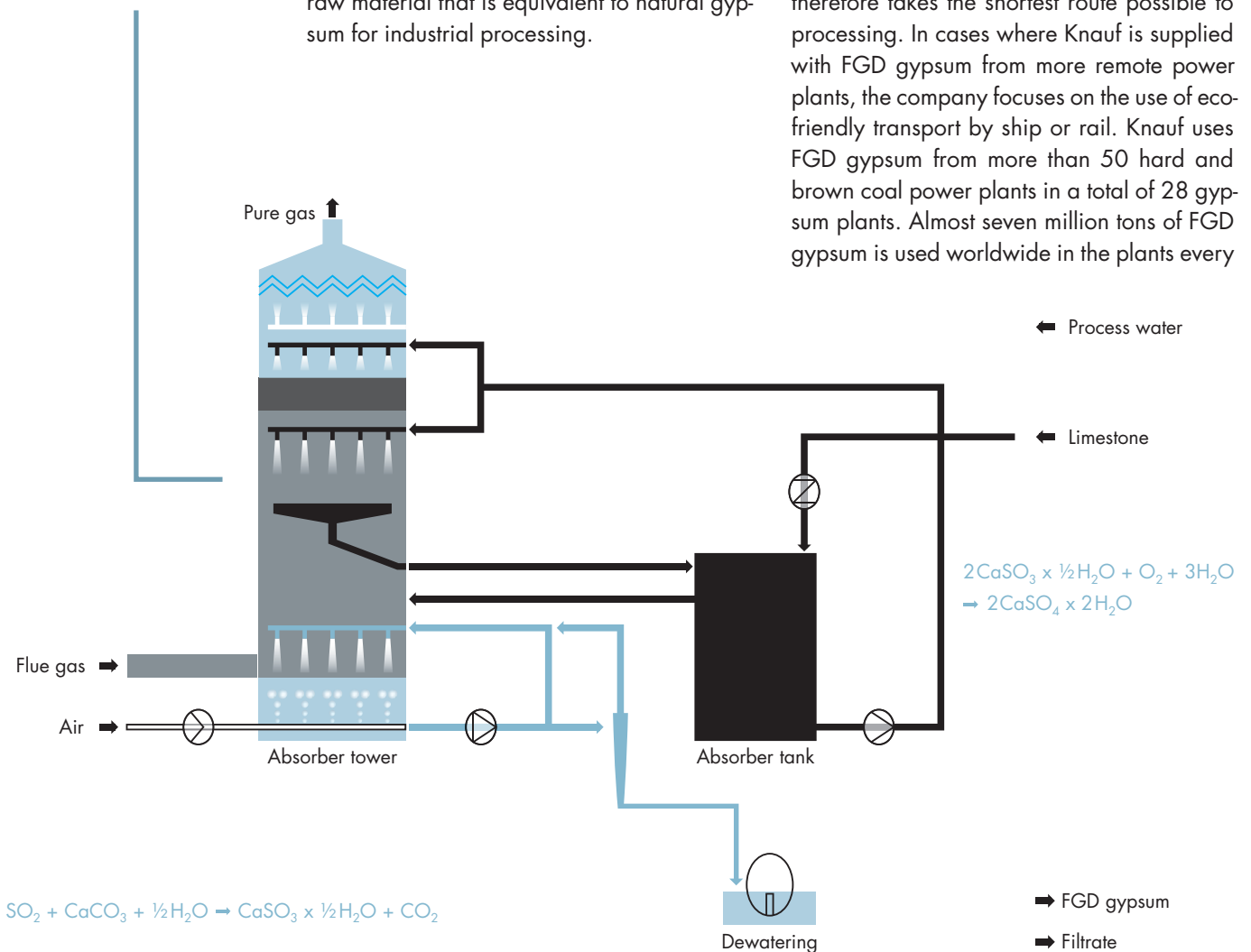
7 million t

This represents the amount of FGD gypsum produced annually in Germany, of which Knauf uses more than half as a raw material.

FGD stands for flue gas desulfurization plants. What this essentially means is that gypsum is generated as a by-product through the process of flue gas desulfurization in the energy industry. Sulfur dioxide is released through the combustion of hard and brown coal, but may no longer be emitted into the atmosphere since 1983 in accordance with the Federal Pollution Control Act. Instead, the sulfur dioxide contained in the flue gas is reacted in the system with finely ground limestone (CaCO_3), which is suspended in water. Gypsum is created in this way in the form of calcium sulfate dihydrate. It is washed in the power plant and then dewatered down to ten percent residual moisture. FGD gypsum develops as a result of the same physical laws that govern the development of natural gypsum. The only difference being that this process takes place in fast motion within a few hours. Synthetically produced gypsum therefore gives rise to a raw material that is equivalent to natural gypsum for industrial processing.

Knauf as a pioneer in research and development

Knauf recognized the resource-saving and economic potential of FGD gypsum early on and continued to develop the technological procedures in cooperation with the power plant operators. Both the desulfurization know-how and the expertise in using FGD gypsum as a secondary raw material are based to a large extent on the company's research and development activities. These technologies have since taken hold worldwide with the result that practically all large coal power plants today are equipped with wet desulfurization. Knauf decided in many instances to establish and operate gypsum plants in the immediate vicinity of coal fired power stations in order to further intensify the sustainability of this solution. FGD gypsum therefore takes the shortest route possible to processing. In cases where Knauf is supplied with FGD gypsum from more remote power plants, the company focuses on the use of eco-friendly transport by ship or rail. Knauf uses FGD gypsum from more than 50 hard and brown coal power plants in a total of 28 gypsum plants. Almost seven million tons of FGD gypsum is used worldwide in the plants every



Flue gas desulfurization process

year. This makes the company the global market leader in this area. The turnaround in energy policy will see increasing numbers of closures of hard and brown coal power plants. This will inevitably also mean a decline in the production of FGD gypsum and possibly even complete loss of FGD gypsum.

Recyclability edge

The possibilities for increasing resource efficiency through use of the building material gypsum are in no way exhausted with the use of FGD gypsum. This is because one of its special characteristics is its excellent recyclability. Gypsum products that are no longer required following, remodeling or demolition of buildings can therefore be recycled by recovering new raw gypsum from them again. No other mineral building material offers this advantage. Not only does the volume of waste decrease as a result, it means that gypsum has an almost fully closed material cycle.

Sustainable building usage with gypsum products

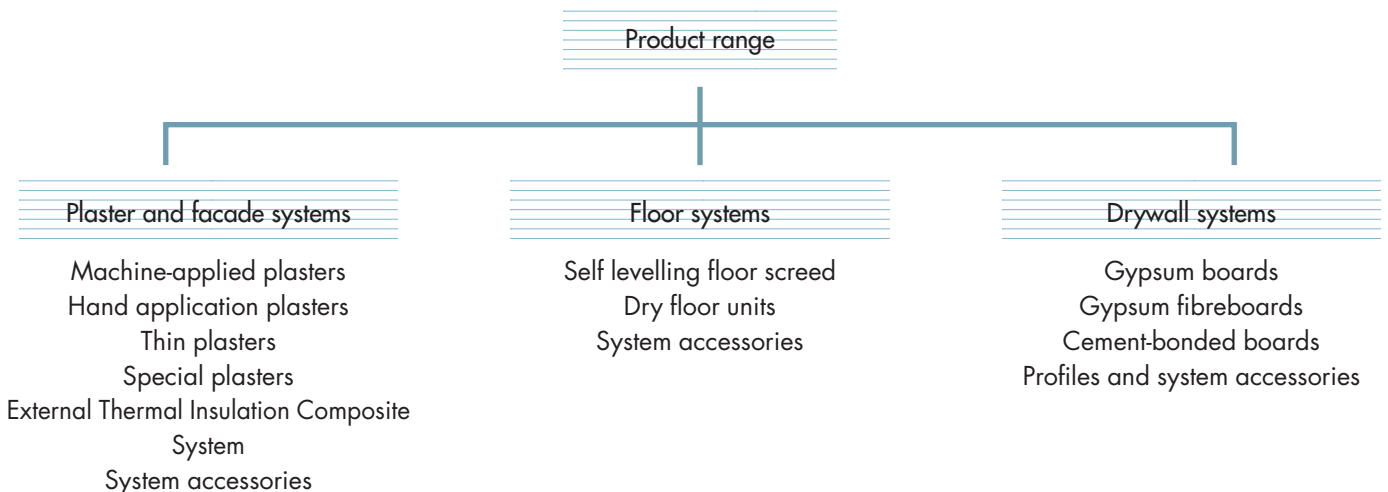
Gypsum products from Knauf not only deliver positive sustainability effects through their resource-friendly value creation and production. They are just as impressive when technical

and functional aspects are considered. Plaster, floor, and drywall construction systems from Knauf allow increasingly sustainable uses of buildings – and they do this from an economical, ecological and social perspective.

Energy efficiency and climate protection are improving

The most effective approach for saving energy and reducing emissions from a constructional standpoint is external thermal insulation. This is because some 30 percent of heat energy escapes unused through non-insulated exterior walls. Thermal insulation composite systems ensure a significant reduction in heat loss not only at the facade but also in basement ceilings and roofs. Listed facades, boundary development or building lines that have to be observed in turn require intelligent internal insulation solutions. Knauf uses internal insulation systems here that work together – from the individual insulation board to the finishing coat.

Gypsum products from Knauf also help with heating modernization, where trends include panel heating systems for walls, floors, and ceiling. However they can only be used to full effect in conjunction with thermally conductive Knauf components, such as leveling screed. Drywall construction systems from Knauf are also optimally connection-ready in terms of cost-effective realization of low-energy and passiv houses. These are usually



built or extended using timber frame construction, which combine well with Knauf systems from a constructional and static perspective – right through to compliance with strict fire safety requirements.

Sound insulation and room acoustics for improved well-being and concentration

Quality of life – both private and professional – and therefore human health, can be seriously impaired by noise pollution. Pleasant room acoustics on the other hand can increase the feeling of well-being. While many noise sources can be quite difficult to eliminate, however, construction solutions can offer effective protection here. Different approaches are needed depending on the starting situation. If the noise source and listener are in different rooms, soundproofing can be achieved through sound insulation. If both are in the same room, sound absorption is used instead. Irritating noises are filtered and concentration and relaxation are improved. Intelligent wall and ceiling constructions from Knauf offer the right solutions for every soundproofing requirement above and beyond what is required by standards, whether in housing construction, schools, industry, business or health care.

Effective fire safety

Not only can fire safety in buildings save human lives, but also important physical assets. Gypsum building materials are especially well suited as they are not flammable. Because gypsum releases water under high temperatures, heat caused by fire can only penetrate gypsum layers on components very slowly. Every ton of gypsum contains approx. 200 liters of chemically combined water, which is released in the event of a fire as "extinguishing water" at precisely the right time. Knauf offers extensive know-how and a broad range of fire-rated components. Worthy of particular mention in this context are shaft wall constructions that protect the sensitive building control system as well as Knauf Fire-

board – a special board of the highest building material class A1, whose surfaces and longitudinal edges are encased in a non-flammable, anhydrite-coated, non-woven glass mat.

Lead free radiation protection in health care

Wherever X-ray diagnostics technology is used in medical practices and hospitals, adjacent areas have to be shielded appropriately from the radiation. Constructions that use lead as radiation protection have been commonly used to date. With its innovative Safeboard, Knauf has developed a new generation of gypsum boards, which dispense completely with lead and yet ensures 100 percent protection from radiation. As is typical with drywall construction solutions, the boards allow simple and flexible finishing and are therefore enormously efficient.

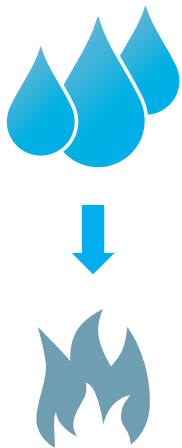
Strict hygiene requirements fulfilled

Maximum hygiene safety is absolutely essential in health care facilities as well as in sanitary facilities in schools and in washrooms and shower rooms. At the same time, the time and cost involved in upkeep and cleaning should remain within reason. What is needed therefore are construction solutions that are moisture-resistant and effectively prevent attachment of dust, dirt, and germs. In the area of hygiene, Knauf focuses on very smooth and stable surfaces, for example through the use of hard gypsum plasterboard and smooth finishing without dust and dirt edges. Hygiene ceilings from Knauf that are used in clean rooms, such as operating theaters and laboratories, additionally have a special coating. They hinder the harmful spreading of bacteria and fungus.



100%

Lead-free radiation protection thanks to innovative Safeboard



approx. 200l

This is the amount of chemically combined water contained in every ton of gypsum, which is released as "extinguishing water" in the event of fire.

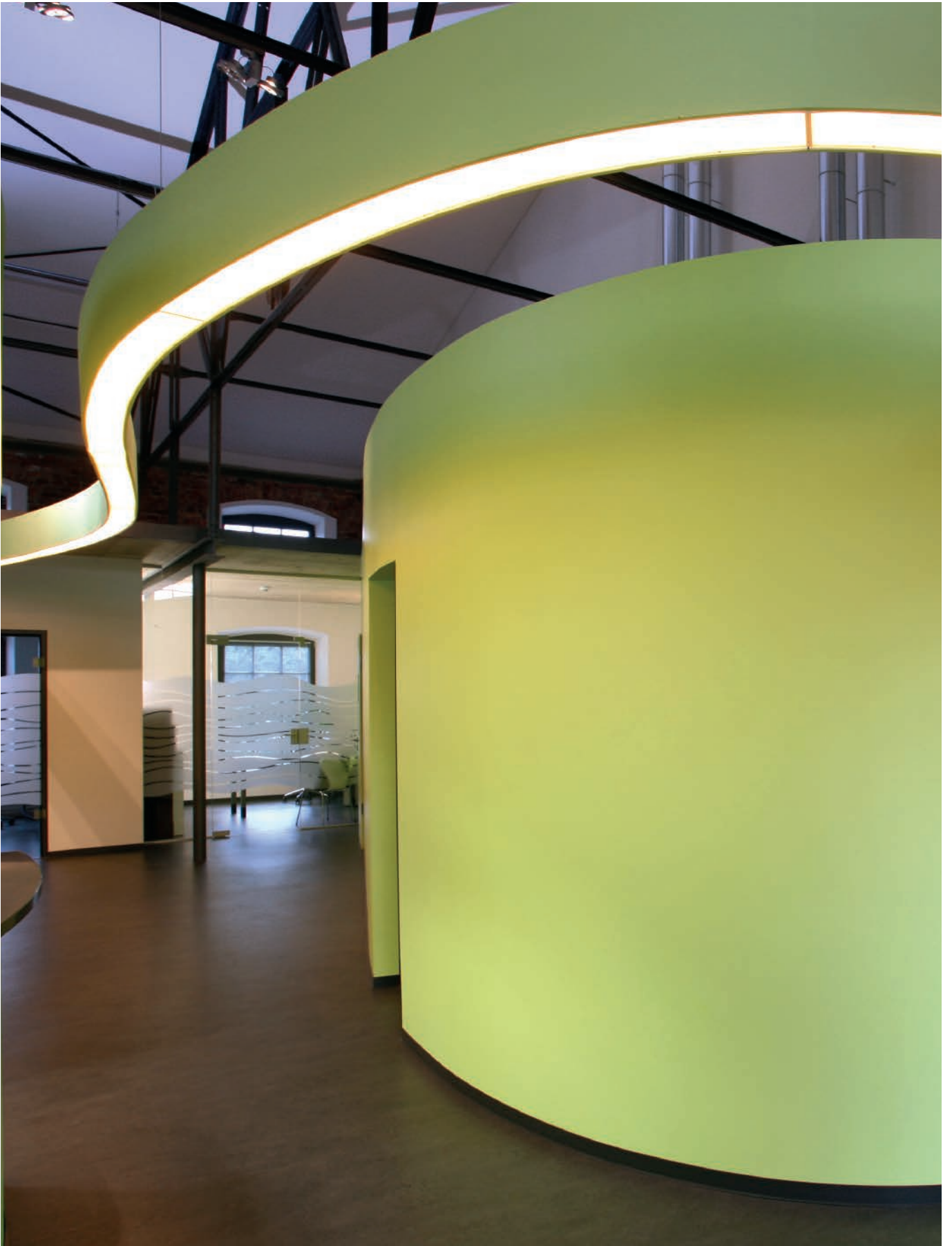
Improved room climate through breathability

Gypsum building materials contribute significantly to living comfort by ensuring a balanced room climate. The critical aspect here is a balanced moisture level. With their large open pores, gypsum building materials can store plenty of indoor humidity without any resulting capillary depression. Gypsum building materials automatically release this humidity if the room becomes too dry. Boards and interior plasters from Knauf have these exact properties and therefore ensure a healthy room climate. In addition, materials are used in some of Knauf's products that allow pollutants and odors in the air to be reduced. Owing to the low thermal conductivity and favorable heat-up performance, gypsum building materials on interior walls retain the warmth within the house.

Optimal room utilization ensures flexibility

Buildings can be used in an environmentally sustainable manner if they can adapt flexibly over their lifetime to different needs. Transformation to other usage types is also often a rewarding alternative compared to the demolition of a building. This perspective is gaining importance in light of demographic changes and is creating new requirements in terms of how working and living worlds are designed. The focus here is on designing buildings and workplaces that are accessible and generation-appropriate. This increases not only the demand for innovative solutions and constructions that change how rooms are divided but make optimal use of the available space. What is also needed are models that create additional space, enable different usage of this space and at the same time still fulfill requirements in terms of the physical building construction. Knauf products and systems offer solutions to meet this demand: Thanks to innovative room-in-room systems, unused spaces are assigned new functions. Slender wall structures in drywall construction allow new room layouts. Where there is

demand for additional space, adding on another floor and expanding are a good choice, also as an appropriate response to rising real-estate prices and rents in urban centers.



New functions for unused surfaces with room-in-room systems



Converted factory building close to Alexanderplatz in Berlin

e-living of the future – high spec interior finishing

Builders, designers, and architects were able to rely on drywall technology from Knauf to complete a challenging conversion of a former factory building into a multi-family apartment building. The house is cited in Berlin today as a successful example of sustainable, flexible, and innovative city living.

e-living standard – experience, emotions, energy awareness

The factory building close to Berlin's Alexanderplatz was constructed more than 100 years ago during the time of rapid industrial expansion in Germany (so-called "Gründerzeit"). Following extensive refurbishment, Germany's first e-home marks the transition to a new living era. The e-living standard was developed by di-Vision bau-medien-projekte GmbH in Berlin and can be seen as an approach to innovatively merging architectural, design and technology concepts. The objective is to combine the complex needs of urban dwellers in terms of working and living in a multifunctional living environment. The "e" stands for experience, emotions and energy awareness.

From the first to the fifth floor, the building is divided into 32 apartments characterized by the fluid layout of the different functional areas. The interior design with integrated living sculptures for sitting and lying is linked with electronic home technology. Multimedia cabling, light management, network technology, and Intranet allow intelligent technical networking and control. The project was carried out with partners from industry, trade, and research and draws on their innovations. The early partnership with Knauf proved highly expedient in terms of filling the empty shell of the factory building with ideas.

Drywall construction – the ideal solution for dynamic room architectures

Curved living sculptures take on the desired aesthetics and function thanks to Knauf know-how. Kitchens are turned into lofts, living rooms are transformed into lounges, working and living merge with one another, but also have to be able to exist undisturbed from one another in order to achieve the desired work/life balance. Every floor plan is marked by a dynamically formed living sculpture. This frequently acts as a focal point within an open room sequence and places the spotlight on the cooking and wellness functions. The ceiling level design with different heights and dynamic curves also acts as a striking element of the room architecture.

Integration of indirect and programmable LED lighting in coves underscores the concept of spaciousness in the same way as controllable spots installed at ceiling level. Storage or seating areas are also features of the interior design. "The drywall construction is not only ideal for a dynamic room architecture, rather it serves as a multifunctional level for the different technical and physical building requirements," explains architect Fernando Montojo, who was very positive in his assessment of the close cooperation with the media partner.



"Whether fire safety, sound-proofing, or development and implementation of design-related details – the support provided by Knauf was critical in terms of us realizing our vision."

Fernando Montojo,
hmp hertfelder & montojo
planungsgesellschaft mbh, Berlin

High quality fire safety

Fire safety was a fundamental requirement for the expansion of the former factory floors. The existing steel stone ceiling, a so-called Klein's ceiling, was retrofitted from below in line with fire safety requirements using Knauf Fireboard with F 90 fire resistance rating. "The fire safety quality of the suspended ceiling, especially the panel thickness, depends on the fire safety quality of the existing slab ceiling. A general test certificate issued to Knauf by an approved building inspectorate provides the basis for efficient solutions. The special Knauf Fireboard boards are used for upgrading to the F 90 fire resistance standard, which allows the use of economically produced paneling with a 20 mm Fireboard layer," explains Knauf Property Manager Ralf Lehmann, who developed the efficient fire safety measures in close cooperation with the architects. This provided the safe layer for the building services expansion. The ventilation ducts and installations were then fitted on this layer, ensuring compliance with the prescribed ceiling design thanks to the Knauf "multi-level ceiling" system.

Ultimate soundproofing for undisturbed enjoyment of life

The e-house in Berlin aims to provide its occupants with an exceptional and innovative sanctuary. A quiet living environment is a basic prerequisite for this. "For the best possible results in terms of soundproofing, the Knauf W115 system with double stud wall partitioning was chosen for corridor and apartment dividing walls. We proposed a combination of Knauf Diamant and Knauf Piano for the paneling to ensure optimal soundproofing in addition to fire safety," explains Ralf Lehmann. The wall constructions are mounted directly on the bare floor or slab ceiling in order to minimize secondary sound channels. A current measurement in the finished e-house taken by Berlin based Akustikbüro Krämer + Stegmaier confirms the acoustic concept in the drywall construction. For example, the airborne sound insulation in accordance with DIN EN ISO 140-4 was measured at two types of apartment and corridor partition walls.

The results were convincing: With a calculated weighted sound reduction index ($R'w$) of 65 dB, the partition wall between apartments exceeds the minimum requirement in accordance with DIN 4109 by 12 dB. The size of this value can be appreciated if one considers that increasing the sound level by 10 dB is perceived as a doubling of loudness. Even the increased sound insulation values under VDI 4100, SSt III, are exceeded by 6 dB.



65 dB

This is the sound reduction index of the Knauf apartment partition wall

Building blackboard

Developer	e-living of the future
Planning	hmp herfelder & montojo planungsgesellschaft mbh, Berlin
Structural design	Ingenieurbüro Czempin, Berlin
Timber construction	HANLO-Haus Vertriebsgesellschaft mbH, Neubrandenburg
Drywall construction	I. R. Bau GmbH, Berlin
Technical drywall construction consulting	Ralf Lehmann and Philip Schrape, Knauf Gips KG, Harry Kliebe, Knauf Insulation
Room concept design "e-office of the future"	merTens AG, Neuss
Room concept design "e-living2022"	Alexis Dornier, Berlin



Dynamically shaped living sculptures

Continuous improvements through quality management



Knauf's objective is to provide services and products that meet the requirements and expectations of customers and business partners as well as statutory requirements, the guidelines of vocational associations and the applicable standards. An essential element of our overall company policy is to supply optimum quality for the respective purpose and to operate an active quality assurance system. Continuous improvement is therefore a permanent objective. The basic prerequisite for this is a strong quality management system.

The quality management system introduced by Knauf in Germany even exceeds the requirements set out in DIN EN ISO 9001:2008 and has been certified accordingly.

The effectiveness and application of the quality management system is verified by ascertaining the level of customer satisfaction, through analysis and evaluation of the processes for implementing products and on the basis of internal and external audits. The information collected provides the basis for continuous improvement.

Knauf products receive numerous accolades from partners

Knauf regularly receives positive feedback from its partners in the market with respect to the quality and sustainability of its products and services. The following prizes and awards are some examples of this: In 2012 the company won Gold at the Architects' Darling Awards in the "Drywall construction" category. The starting point for this was the annual survey conducted by information provider Heinze, where some 2,500 architects selected their preferred suppliers in the construction industry. Before that in 2011, Knauf

won Gold in the "Drywall construction" category at the Architects' Darling Awards and also in the categories "Innovation" and "Sustainability" – these categories were not included in 2012.



Peter Schmieder, Head Marketing and Communication at Knauf (left), and Jens Finkensiep, Knauf Architectural Consultant, accepted the award in the "Drywall construction" category

The company's pioneering role in one of its core competencies was also underpinned by winning the title "Drywall Champion", which was bestowed on it for best supplier in 2012 by the drywall specialist trade in cooperation with Hagebau. Knauf was likewise deemed prize worthy by the "Plaster/EWI" specialist group of the professional trade association EUROBAUSTOFF, who awarded Knauf the title "Top Supplier" in two consecutive years (2011/2012). This same title had also been conferred on Knauf in 2011 by the "Drywall construction" specialist group of EUROBAUSTOFF. Knauf can also point to the broad recognition by its partners in relation to individual products or specific product segments. For example the Knauf Brio dry floor screed system came out on top in a survey carried out by specialist magazine "FussbodenTechnik" among 1,500 building contractors (construction and crafts companies) in the "Best dry floor screed" category.

Architects' Darling Awards 2012



Documented environmental compatibility and safety based on EPDs and self-declared claims

Knauf strives to achieve a high degree of transparency with respect to the ecological compatibility of its products. This makes it easier for builders and users to improve the sustainability of buildings as well as the focus on certified sustainability standards. The EPDs ("Environmental Product Declarations") based on the DIN EN ISO 14025 standard primarily provide clear information on the eco-friendly properties of a product. These declarations include verified eco performance records for a product and highlight different environmental characteristics in detail, for example the level of resource consumption and pollutant emissions.

EPDs are used especially as a recognized information source in Germany for certification in accordance with the German National Standard for Sustainable Building (BNB) and the regulations of the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB). Knauf currently has EPDs for the following products:

Reinforcement plaster, calcium sulfate screeds, gypsum products, and standard plaster. The company's objective is to extend the level of transparent documentation in this area and develop EPDs for other products and systems. The EPDs are supplemented by self-declared environmental claims in accordance with DIN EN ISO 14021. They provide information for example on production facilities, raw material sources and the proportion of recycled materials and therefore represent an important source of information for LEED-certified buildings.

Greater planning certainty for sustainable buildings

Knauf provide the most important environment-related product information on the company's own communication platforms. Users who want to plan and construct buildings in accordance with the DGNB or LEED standard also have direct access to Knauf product information via the www.greenbuildingproducts.eu database. Information on products and systems, such as gypsum boards, metal stud walls or slab ceilings, simplifies research and documentation for designers, architects, and builders. Furthermore, it creates greater planning certainty in relation to sustainably planned properties.

Another service tool in this respect is the DGNB navigator. Information on the environmental impact of products and lifecycle-related product features can likewise be found here. This not only supports designers but also DGNB auditors, who are responsible for certification. Knauf has to date been awarded the DGNB Navigator Label for three products: self levelling screed FE 50, lime basecoat Rotkalk Grund and bonding, reinforcement and renovation mortar and finishing plaster SM 700 Pro.



Product declarations create planning certainty in green building projects



DGNB awards Gold Certificate to Pasing Arcade

The Pasing Arcade in Munich, which was completed in 2011, was awarded the Gold Certificate by the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB). The multifunctional shopping mall fulfilled all required sustainability criteria and is therefore one of the first shopping malls to be honored by the DGNB.

Prefabrication is an efficient solution

Knauf drywall construction solutions provided crucial support for the process, resulting in the successful certification. Compliance with eco requirements was especially significant considering the tight time schedule. One advantage here was that most components for the ceiling structures were premanufactured by Knauf using CAD/CAM resources in Knauf's own production facilities. This meant they only had to be mounted, filled and coated on site. Thanks to the premanufacturing, any previously lost time can be made up with drywall construction as one of the last work steps. No need to worry then about compromising quality. Quite the contrary: Regulated production in the plant often guarantees better product quality than can be achieved with manual labor at the building site.

Knauf ceiling brings calm to the bustling shopping world

Socio-economic and functional principles have also been considered in the applications thanks to Knauf drywall construction solutions. The complete technical equipment of the building – ventilation lines, sprinkler systems, lighting, and more – is integrated below a suspended gypsum board ceiling in a central access zone. Visually the clear white Knauf ceiling forms the desired quiet counterpart to the individually decorated and thus mostly lively facades of the stores, while the outlets for light, ventilation etc. are incorporated in smaller panels designed with Pagolux elements. Required elements such as sprinklers, cameras or ventilation outlets and loudspeakers could be integrated almost invisibly in the open ceiling structure, with the gypsum board ceiling remaining free of disturbing outlets. Exhaust air in the mall zone is extracted invisibly by means of shadow gaps in upstands at ceiling level.

1,050 m² ceilings were created in this way on each of the three levels. In order to span the vent channels and other installations, the raw structure of the shopping mall was underspanned freely with U profiles. The actual substructure of the Knauf gypsum board ceiling is suspended in turn from this bearing frame. It consists of two layers each with 12.5 mm building boards that are fastened about 70 to 110 cm below the reinforced concrete ceilings. All the ceilings are finished in Q3 quality with Readygips, and particularly distinct surfaces even in Q4 quality. Slender wall systems that allow the usable space to be enhanced also ensure the required flexibility in the rental and shop areas. These construction solutions not only allow exemplary combination of trade, services, dining, and living, but also high amenity value.



"As a new urban complex in Munich, the Pasing Arcade is a special city building in the best sense of the word, which meets the challenges of economic, ecological and social sustainability in the most varied facets of its complex structural, functional, and creative components."

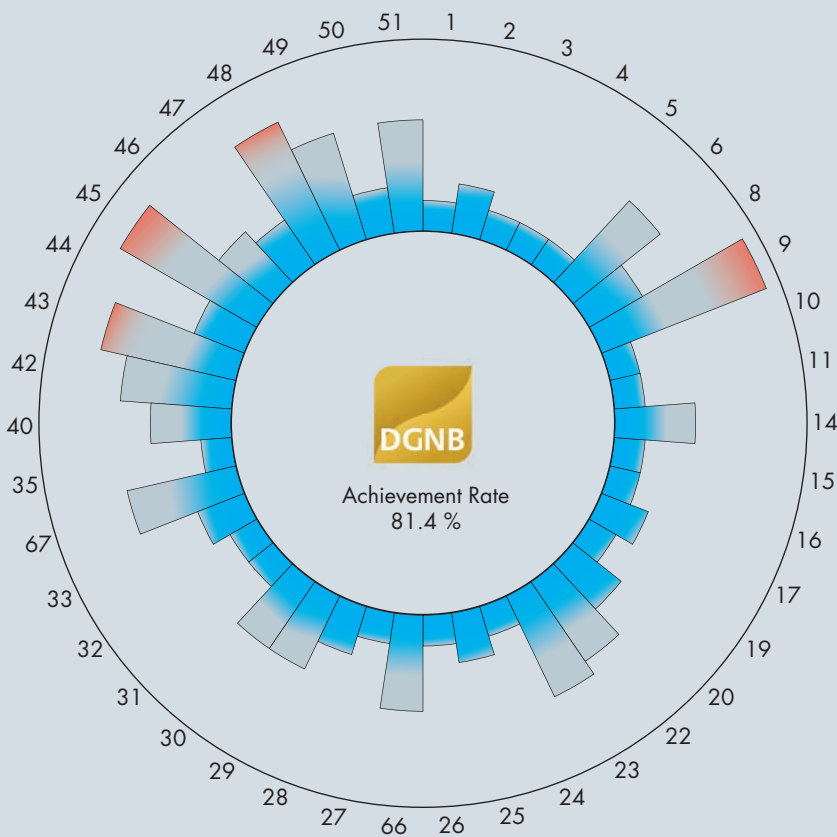
Prof. Ludwig Wappner,
Allmann Sattler Wappner Architekten
Owner and Manager

EPDs confirm ecological soundness

In addition to ecological aspects such as ground water use, geothermal energy, or district heating supply, the architects and designers also used the EPDs ("Environmental Product Declarations") for certification purposes, which confirmed the outstanding environmental performance record of the Knauf gypsum products used. The data here relating to specific characteristics of the products could therefore be incorporated directly into the DGNB assessment and ensures the necessary scores in the eco-related categories.

Property assessment by DGNB

Main criteria group	Ecology quality	Economy quality	Socio-cultural and functional quality	Technical quality	Process quality
Criteria number	01–15	16–17	18–32	33–42	43–51



Criteria 7, 12, 13, 18, 21, 36, 37, 38, 39, 41, 52, 53, 54, 55, 62, 63 are deferred for the 2009 version, they are not used in the property assessment and are therefore also not shown. Criteria for location quality 56–61 are likewise not shown in this diagram.

(Source: DGNB Certificate, Certification No.: NHA09-Z-DE-000525)

Building blackboard

Developer	mfi Management für Immobilien AG, Essen
Architects	Allmann Sattler Wappner Architekten GmbH, Munich
Construction supervision	Catterfeld + Welker, Munich
Work planning	RKW Rhode Kellermann Warowsky, Architektur+Städtebau, Dusseldorf
Drywall construction in Malls	WM-Thermoakustik GmbH, Gilching
Expert consultancy and prefabrication	Knauf Gips KG, Hans Heinzl and Central Property Group in Iphofen



Pasing Arcade

Committed to product safety

In addition to standard-compliant environmental data for its products, Knauf of course also conforms with the strict legal requirements and obligations in relation to product safety. The European Chemicals Regulation REACH (Registration, Evaluation and Authorization of Chemicals) represents one benchmark in this regard. It standardizes chemicals legislation throughout Europe and also aims to improve the level of knowledge concerning the dangers and risks posed by substances. With this in mind, only chemical substances that have been registered beforehand by the ECHA (European Chemical Agency) in Helsinki for specific uses may be brought into the European Union. Various deadlines are specified for these registrations based on the volumes of substances produced or imported. The first registration deadline ended on November 30, 2010 for substances that were produced in the respective company in a quantity of more than 1,000 tons per year or were imported into the EU; the second registration deadline for substance quantities of more than 100 tons per year ended on May 31, 2013. The next deadline for submission of registration applications is May 31, 2018 for substance quantities in excess of one ton per year.

Strict responsibility in the supply chain

REACH not only impacts the manufacturers of substances or importers into the EU, but all companies in the supply chain. The downstream users also have special commitments. They must first of all inform their suppliers of the precise usage of the products so that they can recommend suitable measures to minimize risks. They also have to check if the required applications of the substances used were also registered. Furthermore, communication must be ensured with the customer in order to pass on information along the supply chain.

Knauf fulfills all requirements of the REACH directive and has created the appropriate structures along the entire value creation chain since the directive came into force. Three substances were registered in 2010, including calcium sulfate. As a downstream user, Knauf also pursues its own REACH compliant sourcing strategy, which ensures the legal compliance of all processes from the outset.

At international level, compliance with the GHS (Globally Harmonized System of Classification and Labeling of Chemicals) directive of the United Nations is also required in relation to product safety. This directive is implemented in the EU in the form of the CLP directive (Regulation on Classification, Labeling and Packaging of Substances and Mixtures) and aims to ensure a high level of safety for human health and the environment. Harmonized classification and labeling of substances and mixtures is performed in all countries for this purpose, which is leading to a re-labeling of the products

in the EU. All substances must be already labeled in accordance with the new system from December 1, 2010, while a transition period exists for mixtures until May 31, 2015.

Seamless documentation of product features

Knauf documents compliance with the REACH and GHS standards primarily through accurate safety data sheets. Information on the proper use of the products is published in these data sheets. In addition, they contain various details such as the name of the product, possible risks, composition and specification of component parts, handling and storage, physical and chemical properties, environmental aspects as well as information on eco-friendly disposal and transport. The safety data sheets are revised and adapted continuously to new and changing requirements. Furthermore, safety data sheets are also made available for customers for products that do not contain hazardous substances and for which there is no necessity and obligation to create such documents.

Modified CE labeling is implemented

The EU Construction Products Regulation is a further important requirement in the area of product safety. According to this directive, construction products that are covered by a harmonized European standard or comply with a European Technical Assessment may not be distributed from July 1, 2013 unless they bear the modified CE labeling. Knauf is working very hard to ensure that the modified labeling is implemented in time. Through its work in various standardization committees, Knauf is always up to date with current developments and is therefore well prepared for any changes in product labeling.

Knauf is using the Construction Products Regulation not only as an opportunity to change the CE labeling on its products, but to implement the classification changes under GHS in 2013. This means that initial products can no longer be distributed with the orange colored hazardous substance symbol, rather with the red-framed hazardous substance pictogram. The specifications of the GHS directive may therefore lead to changes in the classification of the Knauf products. Rest assured though, the familiar quality and handling of the products will not change.

Environmental and climate protection

Knauf pays careful attention to the environmental impact of its decisions in accordance with its values. As a producing company that is dependent on the processing of natural raw materials, Knauf has an important responsibility in this regard. The company is therefore dedicated to using resources as sparingly as possible and strictly limiting harmful effects on nature.



Resource efficiency is our guiding principle

Key areas of action for Knauf include making efficient use of energy and raw materials in production, reducing CO₂ emissions that can have harmful effects on climate, observing a sustainable recycling concept, and restoring natural habitats in areas where gypsum is mined.

Saving energy, reducing emissions

Knauf implements a variety of measures aimed at reducing energy consumption in order to exploit the available cost saving potential. Moreover, the company sees its duty to contribute to reducing CO₂ output through the use of efficient technologies including regenerative energy systems. Knauf has successfully carried out a number of projects in this respect. This all started with identifying the need for action and developing a binding target system for the companies. To this end, Knauf has adopted uniform guiding principles with respect to energy policy. These can be summarized as follows:

- Knauf aims to reduce energy consumption in the long term and increase energy efficiency as part of a continuous improvement process.
- All employees are committed to achieving the company's objectives and cooperate actively in implementing these objectives.
- Products and production processes have to be examined with respect to energy efficiency. Through own initiative and close collaboration with customers and suppliers, Knauf intends to ensure energy-saving production insofar as is technically and economically viable.
- Costs are to be reduced and emissions lowered using suitable energy-saving measures.
- Legislative requirements are implemented accordingly.

Energy management system introduced and certified

Knauf introduced an energy management system in 2011, which encompasses all plants in Germany, in order to fulfill its objectives. The company's intention from the outset was to achieve certification according to DIN EN ISO 50001. The requirements in this respect have been fulfilled gradually: Measurement systems were extended, energy consumption values recorded and evaluated, energy savings potential systematically sought, and a roadmap devised and followed. Energy officers were appointed at the pilot locations in order to implement the Knauf energy management system, who exchange their know-how on a regular basis. These officers also act as contacts for employees who want to put forward an idea on how to save energy. This approach is encouraged by Knauf in the framework of the staff suggestion scheme, whereby employees are rewarded for their proposed improvements.



Exploiting energy saving potential requires extensive data analysis.

Meanwhile, most Knauf locations in Germany have been certified under DIN EN ISO 50001. These standards will apply to all Knauf plants in Germany by the end of 2013. Knauf is thereby not only documenting its current capabilities in this area, rather is also creating the basis for a continuous improvement process in the future. At the same time, the company is fulfilling political expectations with respect to the EU Energy Efficiency Directive (2012/27/EU), which will become legally binding from 2014. This directive combines

a number of measures aimed at reducing the use of primary energy in the EU states by 20 percent by 2020 compared to 2012.

Energy efficiency measures at Knauf

Knauf's activities in relation to introducing an energy management system involved measures for reducing its energy requirement and using renewable energies. In particular, this involved measures for energy efficient refurbishment of buildings, which the company applies at its locations in Iphofen and Markt Einersheim. For example, since the refurbishment of the Knauf Museum in Iphofen, geothermal energy is being used as a source of heat along with intelligently networked building services engineering. Roof and exterior insulation with Knauf products as well as installation of modern windows with low heat permeability likewise contribute here to increased energy efficiency and reduced energy consumption. Specific insulation measures were also key elements of the refurbishment of the training building and the vehicle workshop in Markt Einersheim as well as the staff restaurant and motor pool buildings in Iphofen. Knauf selected a particularly innovative solution for the structural redesign of the multifunctional hall in Iphofen, which is also

used as an office building. Natural light shafts were installed here to allow optimal utilization of daylight in the interior spaces, which means less energy is being consumed by artificial light generation. The principal project as part of the rebuilding and extension measures involved the old administration building at company headquarters in Iphofen. This is an enclosed space with a volume of approx. 15,000 cubic meters. Heat loss through the building shell was reduced significantly in this case thanks to wall insulation and double glazing. A further energy saving was achieved through the use of well water for cooling purposes. The building refurbishment is expected to yield an energy saving potential of some 500,000 kilowatt hours.

Through the various measures carried out in the German plants in 2013, approx. 1,440,000 kilowatt hours of electricity were saved. Pneumatic delivery was optimized at the Iphofen I plant and the lighting converted. A further reduction in energy consumption was achieved in the Iphofen II and Lochau plants thanks to the retrofitting of frequency converters. Savings in relation to compressed air were made at several locations.

Gas consumption was reduced by 7,500,000 kilowatt hours and therefore CO₂ output by 1,500 tons per year owing to improvements in the drying processes in production and the use of waste heat from the compressors.



The old administration building in Iphofen following the refurbishment

Efficient and climate-friendly energy supply

Knauf is increasingly fulfilling its guiding principle in relation to energy supply at its locations. Practically 100 percent of energy consumed in 2012 by Knauf Gips KG was green electricity. The provider confirmed to the company that power supply from renewable energies in 2012 resulted in a CO₂ reduction of more than 49,000 tons. This is comparable with the annual CO₂ absorption by some 3.5 million trees or a forest area equivalent to 69 football fields.



3.5 million
trees

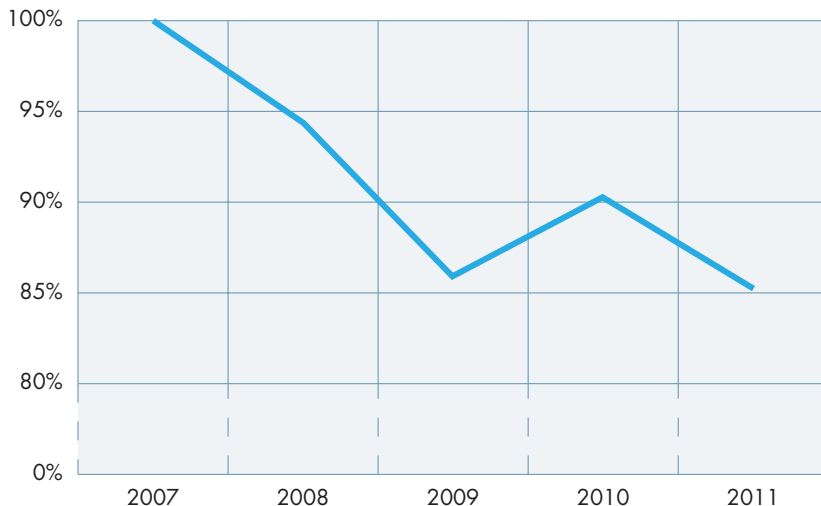
or a forest area equivalent to 69 football fields absorb approx. 49,000 tons of CO₂ per annum. CO₂ output was reduced by this amount thanks to conversion to green electricity.

Innovations at Knauf locations

Knauf also implements its own concepts with respect to improved environmental-friendliness and more efficient energy supply. For example, the company optimized energy supply at its largest location in Iphofen through gradual conversion from oil to gas. This reduced specific CO₂ output by 15 percent. The company currently operates combined heat and power stations at various locations, which use the advantages of power-heat coupling in production all year round. The fuel efficiency of such a decentralized combined heat and power station can be more than 80 percent. A gas or coal power plant generally cannot achieve such values because the

waste heat is only partially used and primarily in the heating season. In addition, classic power plants have a long activation and deactivation time, while combined heat and power stations can be activated and deactivated relatively quickly and are therefore more flexible. The advantages of this technology primarily arise from the fact that the electricity and heat are generated directly where they are needed. Both are used directly in the Knauf plants, which means that transport and distribution losses can be largely avoided compared with central power generation in power plants. The highly efficient combined heat and power stations therefore contribute significantly to reducing fossil energy consumption.

These stations can fill an important gap in supply in the long term in regions like Northern Bavaria, if electricity cannot be generated there from wind or sun. Thanks to their flexible use, they can protect against mains overloads caused by the strong fluctuations in the generation of electricity from renewable energy and therefore represent a key element in the turnaround in energy policy. Knauf is committed to continued investment in own power generation through combined heat and power stations and to the setting up of new plants at its locations.



Reduction in specific CO₂ emissions for gypsum plasterboard

Improved resource efficiency through recycling

FGD gypsum processing saves energy

The broad range of recycling activities carried out by Knauf also contributes in an important way to energy efficiency and climate protection. The use of FGD gypsum at Knauf's different production locations plays a special role in this context, not only by caring for the environment but also because of the many advantages this offers from a logistical perspective. A good example of this is the conversion of the largest production location in Iphofen from natural gypsum to FGD gypsum. A new rail connection and FGD gypsum unloading station were established here to enable eco-friendly production. This enables use of a highly efficient logistics system in cooperation with the power plant operators and Deutsche Bahn AG. An entire train carrying 1,200 tons of FGD gypsum can supply the material for use in production within one day. The train can be loaded in around four hours, travels 300 to 500 kilometers, and can be unloaded within 30 minutes in Iphofen. Deutsche Bahn keeps a sufficient number of special carriages available for transport of this kind, which are lined with plastic on the inside and whose side flaps can be opened automatically by remote control.

The conversion to FGD gypsum reduces consumption of primary energy in production by more than 50 percent while saving more than ten million liters of diesel oil each year thanks to concentrated use of rail transport. This measure is part of a broader climate protection driven approach to transport logistics at Knauf: By optimizing the utilization and routing of trucks and taking account of strict requirements for freight forwarders in terms of the use of pollutant and noise-reduced engine technology, Knauf demonstrates its commitment to environmental protection once again – this time in the area of mobility.



Eco-friendly supply of FGD gypsum by rail

Recycling waste

It is not just the use of FGD gypsum and corresponding logistics solutions that give rise to increased resource efficiency. In addition to using plasterboard scrap from production, Knauf is looking increasingly to the recycling of gypsum plasterboard waste. This comes from the further processing, new construction, demolition, or refurbishment of buildings and has to be reused or recycled in an environmentally friendly manner. Some 300,000 tons of waste is created every year in Germany, and this trend is rising. It can be used in just the same way as the secondary raw material waste paper. For example waste paper is prepared and used exclusively in the manufacture of gypsum fiberboard at the Satteldorf location of Knauf Integral KG in order to ensure the stability of the boards produced. The waste paper is completely dissolved by adding water, giving rise to a pulp. The pulp is freed of coarse impurities such as plastic or metal parts in a number of stages and is then available following these finishing processes for use in the manufacture of gypsum fiberboard.

New recycling concept ready to launch for the gypsum industry

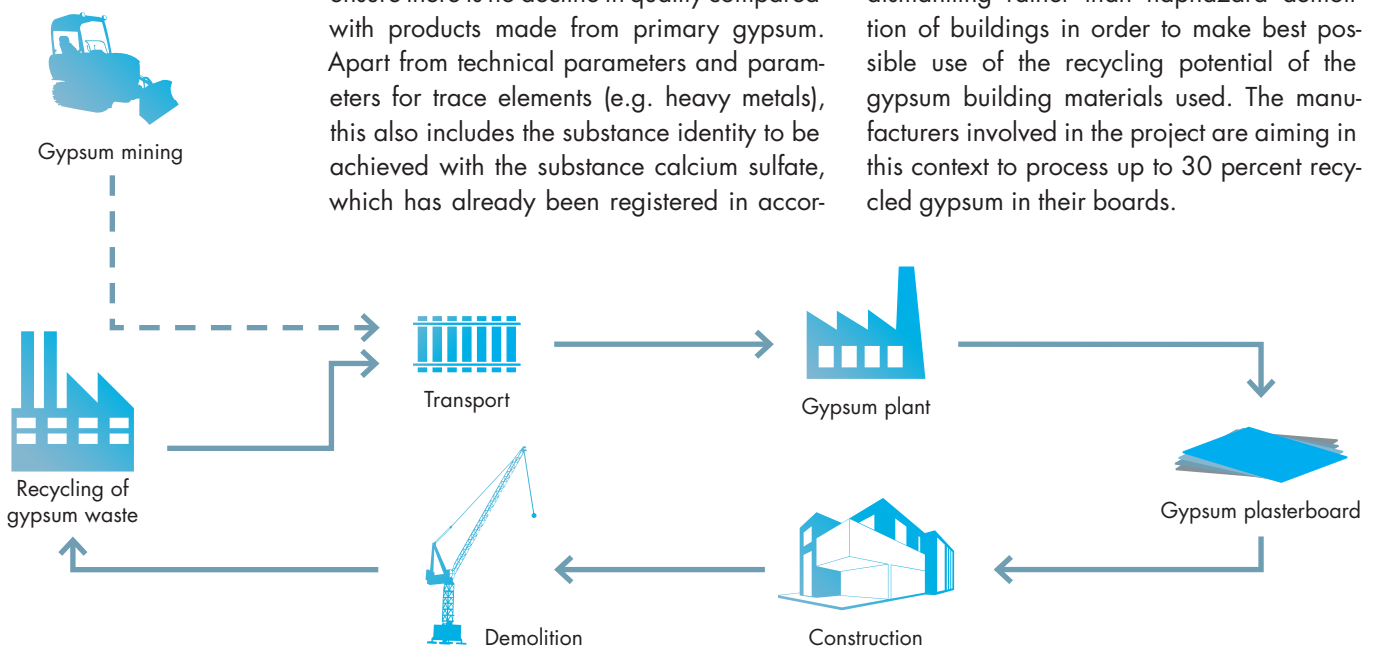
By striving to effectively close the material cycle for gypsum, Knauf is also taking account of the revised political framework and regulations. The Closed Cycle Waste Management Act (Kreislaufwirtschaftsgesetz), which came into force in 2012, calls for eco-friendly disposal of products after use as well as priority use of recoverable waste or secondary raw materials in production. The Bundesverband der Gipsindustrie e.V. (BV Gips) responded early on to these requirements and under the guidance of Knauf developed and published a recycling concept for gypsum plasterboard waste, which is to be implemented shortly. This concept focuses on establishing a framework for enabling use of recycled gypsum in selected gypsum plasterboard plants. The remit of the waste management industry in this context includes the collection, temporary storage, and recycling of gypsum plasterboard waste for reprocessing as well as delivery of the recycled gypsum to the gypsum plants. Recycling of production scrap for reprocessing on the other hand is frequently handled by the individual gypsum plasterboard plants themselves.

Minimum requirements are specified by BV Gips, which must be fulfilled in order to ensure there is no decline in quality compared with products made from primary gypsum. Apart from technical parameters and parameters for trace elements (e.g. heavy metals), this also includes the substance identity to be achieved with the substance calcium sulfate, which has already been registered in accor-

dance with the REACH directive. The particular gypsum plants selected for accepting and recycling waste are also published within the framework of the concept. An overall intake capacity has been defined for these plants of 150,000 tons per year initially. This provides excellent planning security both for the recycling industry and for the gypsum industry.

GtoG – Recycling project at European level

Knauf is also involved at European level in achieving progress in relation to gypsum recycling. Under the auspices of the association of European Manufacturers of Gypsum Products (Eurogypsum), the company is involved together with 15 leading demolition and recycling companies as well as manufacturers in the GtoG project ("From Gypsum to Gypsum – From Production to Recycling"). The objective of the EU-funded project is to develop the European gypsum waste market to a gypsum recycling market in order to achieve higher recycling levels and ensure resource-friendly recycling management for gypsum. An important approach in this regard is the selective dismantling rather than haphazard demolition of buildings in order to make best possible use of the recycling potential of the gypsum building materials used. The manufacturers involved in the project are aiming in this context to process up to 30 percent recycled gypsum in their boards.



Lifecycle model of the "From Gypsum to Gypsum – From Production to Recycling" project

Biodiversity and raw material supply in harmony



Quarries are sanctuaries for threatened animal species such as yellowhammers and yellow-bellied toads

Eight to ten million tons of sulfate rock (gypsum and anhydrite) are recovered every year in Germany; most companies refine the raw material themselves to produce special gypsum or building gypsum. This is why long-term raw material supply locally on a regional basis is of such immense importance for protecting investments and securing jobs. It is also likely that the demand for natural gypsum will grow in the future as soon as power from coal and lignite is reduced in accordance with climate change objectives. The FGD gypsum recovered as a secondary raw material from these processes will therefore be usable in much smaller quantities. The present 50 percent fulfillment of demand is therefore no longer guaranteed.

Gypsum quarries provide a habitat for plants and animals

While continued extraction of raw materials from quarries and pits is essential, the focus here must be on ensuring the principle of sustainability and on taking account of existing habitats of flora and fauna. Although recovery of gypsum in comparison to deposits of other raw materials demands comparatively small areas, mining in each case represents an intervention into the natural and cultural landscape. This has often led to the accusation that nature would be irrevocably destroyed in the mined areas and "scars" would be left on the landscape.

There has been a rethink here in recent years however – not least because of dialog between the nature conservation associations and the raw materials industry. Results of research conducted have also shown that the rocky surfaces of the gypsum quarries, which at first glance appear to be hostile to all life form, shelter diverse habitats for likewise diverse animal and plant species. Whether still in use or already abandoned, quarries are

therefore extremely important as a special habitat and haven for threatened plants and animals. They shelter currently endangered species with special habitat requirements, such as peregrine falcons, eagle owls, butterflies and locusts, but also species of orchids and other rare plant species on the Red List. This finding is gaining increasing recognition especially in light of species decline, which the international community wants to curb, with agreements such as the Biodiversity Convention, which has been signed by 176 states. The gypsum industry can contribute to its implementation. Recovery of raw materials and nature conservation are therefore no longer regarded today as contradictory, rather as a basis for joint collaboration and successful implementation of solutions for safeguarding and developing the biological diversity in extraction sites.

Diverse recovery measures

A broad range of options have unfolded for nature and landscape-sensitive reintegration, which focus on the local respective conditions and requirements. As a representative of the raw materials industry, Knauf bears a special responsibility in this context, which the company actively takes on board in each individual process step. Stipulations on the type and extent of re-use are already underway in the framework of approval procedures in close cooperation with the company, agriculture and forestry, nature conservation agencies and associations and increasingly with the various public stakeholder groups in the relevant area. The measures focus on two areas here: Recultivation and Re-Naturalisation.

Recultivation allows re-use

Recultivation aims to ensure successive use of agriculture or forestry in areas that were previously characterized in a similar way. This requires substantial reintegration of mining sites into the landscape and restoration of reliefs typical of the landscape. What is important here is that the reusable native soil is treated properly and degradation of the groundwater is avoided. Shrubs typically found in the region can then be planted or suitable shrub and grass mixtures sown. Tillage and fertilization are carried out in line with agricultural science principles so as to ensure optimal yields from the recultivated areas. Potential reforestation is only carried out in close cooperation with the forestry authorities. Other usage types also come into question in relation to recultivation however. For example local businesses or industrial enterprises can move into the regions or sports and leisure facilities can be established.

Different approaches to re-naturalisation

Three types of re-naturalisation can be identified:

1. The areas are left alone completely. Re-naturalisation takes place without any human intervention. Abstention from special measures is particularly important where the focus is on protecting the process of natural dynamics. Plant species typical of gypsum areas generally become established without intervention in the case of poor grassland flora. Likewise, lakes that form in deeper mining cavities can also fulfill their potential as habitats.
2. The re-naturalisation process is accelerated in the early stage through initial planting and then left to itself.
3. There is permanent human intervention through planning and planting of vegetation that is typical of the location as well as subsequent maintenance measures.

Landscape conservation support measures can also involve creation of wetland habitats. Seasonally wet areas or smaller open waters offer ideal living conditions for amphibian species such as frogs but also for reeds and other aquatic plants. If re-naturalisation includes the goal of developing pioneer sites with specific flora and fauna for these sites, such habitats have to be continuously established through soil exploration. Where sensitive dry grasslands develop as a result of vegetative succession, it can make sense in individual cases to preserve this state through maintenance measures or allow it to develop naturally into the woodland stage.

Broad commitment to environmental education

Knauf has sought intensive collaboration with universities, technical colleges and private conservation agencies since the beginning of the nineties. Although research has some catching up to do in this area, considerable progress has been made to date, which among other things has resulted in the setting up of professorships in the area of ecology disturbance.

Knauf pays particular attention here to environmental education in the form of field trips and project offers. This also includes an environmental prize awarded by the Arbeitsgemeinschaft Bayerischer Bergbau- und Mineralgewinnungsbetriebe e.V. (ABBM) for the first time in 2013. The competition is aimed at companies in the industry who work in collaboration with a nature conservation group. School project groups can also contribute to this framework by getting involved in a re-naturalisation project together with raw materials companies or in creating and improving a biotope. The objective of the environmental prize is to promote and strengthen cooperation between nature conservationists and the companies extracting the raw materials. The prize aims to highlight and honor joint efforts in the area of biodiversity.

Apart from these initiatives, Knauf has been focusing since the mid nineties on ensuring a broad information base for politics and society concerning the relationship between

raw materials and nature conservation, and has developed a series of publications in cooperation with other associations and organizations. The company therefore supports dissemination of knowledge in relation to re-naturalisation of mining sites and preservation of biodiversity. These efforts should be boosted further through increased staffing levels in the area of raw materials supply and

the environment at Knauf, through targeted further education and training for Knauf employees and through dialog with nature conservation associations.



Mining site at Krebsbachwand near Rottleberode (Südharz), 1991



Krebsbachwand 2010 following recultivation and re-naturalisation.



Renaturation example in Markt Nordheim

Grass steppes in gypsum quarries: Example of re-naturalisation in Markt Nordheim

While more than 80 percent of our wildlife and plant life attribute their presence to humans having created a cultural landscape over many centuries with diverse habitats and living conditions, there are also original, relic-like habitats still in existence outside of the Alps, forests, and bogs. They are witnesses to bygone eras in the heart of the agricultural landscape and owe their existence to a special rock known as gypsum. These are the dry grasslands that occur on the gypsum hills. They are the relics of the late glacial tundra. The plant communities on the gypsum hills are considered to be threatened with extinction. All are part of formations that are listed in the Annex to the Fauna-Flora-Habitat Directive.

Objective: Conservation of the species potential

The targeted re-naturalisation of specific biotopes – also referred to as gypsum steppes – was included for the first time in a gypsum mining process as part of the Markt Nordheim (Mainfranken) project. The plan involved an area of about eleven hectares in which vegetation cover was to be used to bridge the spatial gaps between a nature conservation area with gypsum steppe residues and several small gypsum hills exposed through partial mining, with topsoil removal up to the gypsum surface or also extensification of adjacent agricultural areas. The merged area was to be suitable for preserving and increasing the species potential and for sustainably protecting the primary biotope through shielding from agricultural substance discharges.

The project commenced in 2004 following intensive discussions between Knauf and the official and private nature conservation agencies in the framework of a procedure under mining law. The establishment of the re-naturalisation areas was largely completed in 2009. The success as well as potential for improvement should be established through specific monitoring by around 2020. The last survey was carried out in 2012.

Grass cuttings are introduced

The grass cuttings came from the poor grassland areas and the remaining areas with valuable steppe vegetation. Grass cuttings were first introduced in 2006 in a small area in the south and then in a larger area in the north in 2008. Some were recovered by hand and introduced onto the land by farmers using a spreader. The objective was to join the remaining steppe areas, the biodiverse meadows and the areas that had already been recultivated with the hay seed process in 2006 in the south of the mining region.

Dense vegetation results

The developed species have undergone a significant change (turnover) within four years. Likewise there has been significant closure or compaction of the vegetation cover. Gaps have remained primarily in the area close to the top of the gypsum surface. As was expected, arable and ruderal species



"The project in Markt Nordheim shows that unprejudiced and fruitful cooperation between gypsum companies, nature conservation associations and botanical scientists can create a unique win-win situation for the preservation of endangered animal and plant communities and social responsibility for preservation of biological diversity. The development of areas in Markt Nordheim is simply referred to as an example of this."

Bernd Raab
Landesbund für Vogelschutz (LBV)
Species Protection Department

have declined further, which can be attributed to the space closure and changing light conditions caused by the top grass. The new target species have evidently independently migrated in from the southeast from a nearby gypsum hillock with steppe vegetation. This change is particularly evident in the sociological group spectra in diagrams 2 and 3, where the significant increase in target vegetation is notable. The northern area has since developed to such a "meadow-like" extent that it can be mowed or grazed regularly.

High conformity with initial vegetation

The last recording of plant populations in the southern area took place in 2012. Dense vegetation cover has developed in this area in six years, which in addition to many target species – among others the Danish Astragalus (*Astragalus danicus*) was found here in 2012 – includes numerous species of thermophilic 'saum' vegetation (scrub borders). Compared with 2009, 28 species have disappeared completely from the specimen areas. Of these, nine can be attributed solely to arable species. There has been no loss of target species in the period under review. The overall area currently conforms to a large extent to its source or initial vegetation.

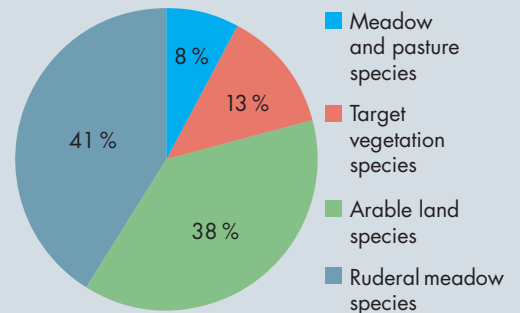
The 2012 surveys show that the hayseed process has proven successful. The results confirm the experiences from many similar trials. They also show that independent development and migration have occurred in the four to six year period. And while this no longer needs to be supported, maintenance should be provided in order to reduce the large percentage of numerous species of vegetation typical of scrub borders and to encourage dry grass-land species, in particular small species that require lots of light.

Use of sites remains limited

Projects involving extraction of raw materials cannot be considered land use in the proper sense of the term, as intervention is only temporary and the re-use is often more valuable in terms of nature conservation than the initial situation. With respect to its current requirement for natural gypsum, for example in Bavaria, Knauf requires an annual mining area of approximately three hectares. These areas move around between deposits with the result that each area is only being used for one to at most three years. While mining continues in one area, the abandoned areas are recultivated with meaningful conservation-friendly cross-linking structures and with on average up to 20 percent of the area as biotope landscapes, which often also contain interesting geotopes. These re-naturalisation areas are then frequently also identified officially as biotopes, protected landscape elements or such like. Further preservation of these structures is also ensured through transfer of ownership of the properties, for example to private nature conservation associations or to state operated conservation associations in cooperation with conservation agencies and landscape maintenance associations.

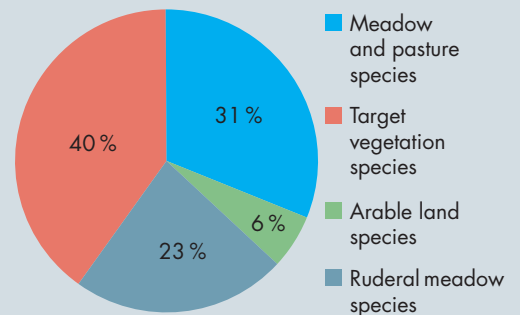
Recovery of raw materials and nature conservation are no longer regarded today as contradictory, rather more so as a basis for joint collaboration and successful implementation of solution paths for safeguarding and developing the biological diversity in extraction sites.

Specimen areas in the north 2009



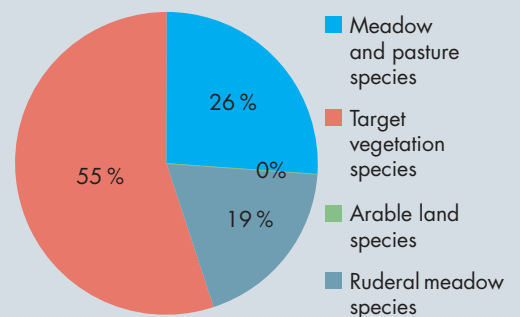
Group spectra for hay seed areas in the north in the first year following introduction

Specimen areas in the north 2012



Group spectra in the northern areas three years later

Specimen areas in the south 2012



Group spectra in the southern specimen areas, the target vegetation species are already dominant



Danish Astragalus (*Astragalus danicus*)

True partnership

For Knauf being value-focused means being a reliable and loyal partner. The company's sustainability objectives can only be achieved through collaborative partnership. Strong customer focus in products and services as well as in communicating specialist knowledge are therefore among the company's top priorities. Targeted activities at political and association level complement the dialog in a variety of ways.



Collaboration for mutual success

Knauf works confidently and continuously with its partners in the market, in the company, in science, politics, media, and society and analyzes their expectations. Information, dialog, and mutual sharing of knowledge are essential to do this.

Employee

We are makers of our own destiny. Knauf is as good as the sum of all of its employees. We rely on their ability and creativity. Successful and satisfied customers are an essential component of this. Knauf's facilities are characterized by state-of-the-art production technologies. They are employee-friendly and efficient as well as resource conscious and environmentally aware. Recruitment of management from our own ranks is as important to us as the continuous, individual further training and education of Knauf employees.

Employee representation

Solid and constructive cooperation with the employee representative body/works council is evident from the close cooperation in one respect, and from critical question and answer dialog. Critical employee representation is a challenge for the company and at the same time offers development potential – for the benefit of all employees.

Potential applicants/employees

Knauf is a strong brand and a solid family business. We attach great importance to capable young talent in the corporate family. This is because it is not only the products but especially the people who are critical to the success of the company. The company's attractiveness is demonstrated by its strong brand, the further education and training possibilities as well as the variety of development and advancement opportunities.

Politics and administration

We value our employees' active participation in the local clubs, associations, politics, and administration. We are committed to community life and encourage interaction between diverse groupings and ages – from the nursery to senior citizens facilities. Exchanges take place from local through to state political level, so that answers can be found to current issues.

Customers

Absolute customer focus is the key to our company's success. Responding to the needs of our customers and fulfilling their requirements with respect to our building products and systems is our absolute priority. We make use of all communication tools as well as forms of dialog and collaboration for this purpose. Establishment of training centers and endowed professorships are important elements of practical training for our customers.

Associations

We are actively involved in various trade associations, such as for example the Bundesverband Gips e.V., Industrieverband WerkMörtel e.V. and the Verband Deutsche Bauchemie e.V. In addition we are involved in various Eurogypsum working groups – the European association of the gypsum industry in Brussels. Furthermore, we are members of associations such as the Bayerische Industrieverband Steine und Erden, the Industrieverband Steine und Erden Baden-Württemberg, the Industrieverband Steine und Erden Aachen and the Unternehmerverband der Nordwestdeutschen Gipsindustrie.

Associates

Another foundation stone for the sustainable future-proofing of Knauf as a family business was laid when Alexander Knauf joined the Group's Management Board. This means that the company shares remain fully in family ownership.

Science

In the area of research and development, we cooperate with numerous scientific institutions and distinguished technology partners. As a company, we participate regularly in publicly funded research projects at national and European level and are a member of the Research Association of the German Gypsum Industry as well as the Arbeitsgemeinschaft industrieller Forschungsvereinigungen (AiF). Furthermore, our company cooperates closely with universities and maintains several endowed professorships. Knauf also offers young people the opportunity to gain academic qualifications up to doctorate level within the framework of the company.

Banks

At Knauf we maintain solid business relationships with principal banks and other financial institutions. Through balanced distribution of banking services as well as timely monitoring and analysis of the financial markets, independence from individual financial institutions and the ability to react quickly to changes in the banking market are assured alongside the sustainability of the banking relationships.

Media

Good communication is very important to us, both at a local level and in relation to the trade press. We therefore cooperate with local media in just the same way as with the specialist trade media.



Customer proximity is one of the success factors for sustainable action at Knauf

Customer focus is an absolute priority

Knauf is connected to its customers by a special partnership. Proximity to the customer, their loyalty to the company, excellent consulting and professional service are key elements of success in business, which is the basis for sustainable action. The skilled craftspeople who use Knauf products and systems in their everyday work play an important role in this context. The company therefore strives to continuously expand collaboration with the strongest performers in the skilled craft sector and to develop the market together. At the same time, Knauf is committed to fulfilling the requirements of the skilled craft sector for even more intensive support.

Specialist companies need special support

With this in mind, Knauf established its specialist company club in 2012. Knauf provides its club members with comprehensive and exclusive specialist information in relation to sector and product news, prepared market data, marketing support as well as a variety of further education and training programs. Both small craft businesses and large specialist companies with big workforces benefit from the free membership. The main criteria for inclusion include, for example, professional qualification, commitment to installation of Knauf systems and the importance of Knauf for the specialist company.

Many specialist companies also benefit from exclusive events on a larger scale and with reputable speakers. These include "Visions", an important forward-looking event for members of the specialist company club in Iphofen. Regional events are also offered for these companies.

Knauf is particularly aware of the importance of providing personal support for the club members. Knauf's field service department and the responsible regional manager, who would be particularly familiar with the regional market environment, act as direct contacts for the club members. In addition, personal contacts in the plants and the technical service team are also on hand to provide support.

Close cooperation with the building materials trade

The specialist company club initiative is favorably complemented by the Knauf Partner Program, which has striven for successful joint market development and even closer cooperation with the building materials trade since 2010. The specialist dealers are assessed once a year based on an objective evaluation and points system according to five performance criteria. This qualifies the service providers as trade partners or premium trade partners. Some 480 partners and premium partners have been included in the program to date. The commitment of the specialist dealers is recognized in the form of an extended and location-specific service offering. In addition, a seamless exchange of information and personal support for the trade partners is ensured. The objective here is to achieve a substantial market edge for the trading companies and for Knauf.

The Knauf Partner Days are a firmly rooted element of the Knauf Partner Program. They are held once a year at up to six different locations. The main topics covered include developments in the specialist building materials market, establishment of joint sales and marketing campaigns, and targeting customers using new media.



Visit to the Porsche plant in Leipzig as part of the Knauf Partner Days



Product highlights and innovations are center stage at Knauf Werktage

Specialist conferences ensure know-how transfer

Knauf conducts specialist conferences together with other target groups, such as, for example companies from the housing industry, which are facing special challenges in terms of energy efficiency and environmental awareness in relation to construction of new properties or refurbishment of existing ones. Knauf informs their representatives regularly about innovative product and system solutions for the housing industry and provide interesting insights into procedures and production technology through tours of the plants.



15,481 visitors

to Knauf Werktage

Moreover, with its Iphofen Days, Knauf offers events for partner companies from different areas of the construction sector. Joint business models and marketing projects have been discussed and agreed in this respect for example with companies such as Baustoff & Metall, Saint Gobain or Hagebau. Company headquarters in Iphofen also offers an ideal framework for meetings of trade associations in the building materials sector. For example, plasterer associations from North Rhine-Westphalia as well as the Arbeitsgemeinschaft Bayerischer Bergbau- und Mineralgewinnungsbetriebe e. V. used the facilities in 2012.

The "Knauf Werktage" industry event

The "Knauf Werktage", which are held every two years, have become one of the most highly regarded industry events for Knauf customers. Planners, architects, the building materials trade, and specialist companies meet with Knauf experts at the different event locations in Germany to exchange information on latest innovations, system solutions, and trends in the sector. Product highlights and industry topics are combined to create illustrative exhibits, experience events and model constructions. The participants get to experience numerous product innovations as well as new procedures and sample applications from Knauf. The Knauf Academy ensures a tailored program of events for this major crowd-puller with its more than 15,000 visitors (2010/2011).

Enhanced transparency through customer surveys

Knauf recognizes the expectations and needs of its customers not only through daily collaboration. The company also conducts regular customer surveys, which provide information about the level of satisfaction with Knauf's offers. The Knauf Partner Program and the response to the specialist company club were scientifically analyzed in this framework in 2011 and 2012. The overall satisfaction rating with the Knauf Partner Program came out at 72.8 percent, 2.8 percent up on the previous year 2010. More than 86 percent felt

that the program offered clear added value. The quotation preparation, back-office telephone support and the technical service team were rated particularly highly. The average overall satisfaction rate among premium partners was 75.6 percent.

The average overall satisfaction rating in 2012 among members of the specialist company club with the service packages, service processes and tools of Knauf was 75.6 percent. Product quality, technical service, logistics and personal support by field service staff received particularly high scores. Almost 83 percent of members believe that the specialist company club can help achieve mutual success.

New customer-focused website

It was also particularly important to Knauf to know what its customers thought when it came to redesigning its website www.knauf.de. The website is visited on average by more than 100,000 users each month. An online survey was conducted in 2012 among the main target groups of architects, specialist companies, and the building materials trade with respect to the planned modernization of the website, with the involvement of more than 3,000 participants. Common to all three groups was keen interest in achieving faster and simpler access to detailed technical product documentation and the solutions offered by the manufacturer in response to construction-

related issues. The modernized Knauf website will go online at the end of 2013.

Insights for trade press into the company and products

Knauf also counts the specialist media among its most important partners in the building materials market, considering the valuable role they play in the sector in conveying information. Above and beyond regular press activities, the company therefore regularly organizes a Knauf Press Day in Iphofen, which took place for the third time in 2012. More than 30 representatives of the most prestigious titles in the skilled craft, architecture, and specialist trade press were invited as well as online media and the local press. Knauf employees presented them with a broad range of product innovations through the forum of specialized lectures. The journalists were also given an opportunity to investigate products and systems in an exhibition and exchange views with the Knauf experts.

Targeted further education and training from the Knauf Academy

The construction sector has changed fundamentally in Europe in recent decades. New aesthetic approaches as well as innovative, energy-efficient, and sustainable building technologies are becoming increasingly important and are making their mark on modern architecture. Knauf therefore wants to offer its customers and partners a variety of high-quality and practical programs for further education and training. The Knauf Academy is responsible for this task in the company. The objective here is to ensure that Knauf building customers are satisfied customers. This requires:

1. Professional planning
2. The right solutions with the right products
3. Practical installation

The further education and training offers from the Knauf Academy therefore center around



100,000 visitors

per month to the Knauf website



Finishing techniques are explained clearly to the training participants

seminars that provide participants with the latest state-of-the-art know-how as well as current trends and extended fields of application. The offer is split into the following areas:



Specialist seminars are organized by the Knauf Academy

a) Specialist seminars

These seminars are tailored to the needs of customers of Knauf Group Germany. In addition to training on products and systems, these events focus on conveying know-how in marketing, sales, and operations management of craft and trading enterprises. The specialist seminars attracted some 1,000 participants in 2012.

b) Seminars for members of the specialist company club

The offer was in its start-up phase in 2012 and continues to be expanded in 2013. In addition to training on technical issues, the customer is also given know-how in legal and business management topics, such as advisor's liability, complaints management and price negotiations.

c) Exclusive seminars for Knauf trade partners

Around 400 representatives of the building materials specialist trade took part in these advanced education and training events in 2012. The seminars included traditional product and system topics with a high practical content. The participants also received training in special areas such as building physics or energy efficiency. An equally important element covered was personal time management and achieving an optimal work/life balance.

The Knauf Academy also offers a variety of custom events for individual target groups. For example, seminars are conducted for architectural practices. In addition, lecture and seminar events are held for associations, vocational teachers, and individual companies. Apart from the seminars offered by the Academy, training events are also offered – primarily targeted at DIY markets – by employees of Knauf Bauprodukte. These seminars were attended by more than 1,200 participants in 2012 who learned how to communicate the applications of Knauf products to building customers more clearly.



The young up-and-coming plasterers battled it out using Knauf materials

Knauf supports national plasterers' team

In a show of public support for its best up-and-coming talents, Bundesverband Ausbau und Fassade of the Zentralverband Deutsches Baugewerbe has put together a national team of plasterers. In training for international competitions, such as the World Trade Championships, the team can rely on the active support of Knauf. For example, in a qualifying round of the competition the company provided all the necessary plaster and drywall construction materials as well as accessories, such as profiles, free of charge.

Knauf Academy extends offer

The company wants to continue to innovate and expand the offering of the Knauf Academy. For example, craftspeople will be trained in the future as Knauf demonstration experts. The objective here is to be able to offer product training to satisfy greater regional demand. Medium to long term it is also planned to develop and deploy e-learning tools in order to allow the different target groups to receive training online.

KNAUF CAMPUS: Bridge-builder to the universities

One of the most important tasks of the Knauf Academy, in addition to further education and training offers for customers and partners, is to establish and maintain close contact with research and teaching in universities. This is because training young talent in the building faculties of universities and technical colleges is gaining in importance, especially in view of growing skill shortages. The Knauf Academy has therefore refocused its attention and is offering professors and lecturers support through the KNAUF CAMPUS university program in the form of lectures, workshops, and projects, which are conducted by lecturers of the Knauf Academy.

Knauf supports endowed professorships

In addition, Knauf is supporting two endowed professorships at the University of Applied Sciences Rosenheim and at the University of Darmstadt. With Knauf's endowed professorship in drywall construction, this topic has become a key focus of the Timber Construction and Finishing program at the Rosenheim University. The endowed professorship funds allow rapid development of drywall construction doctrine and the drywall construction laboratory, so that theoretical study contents are complemented by practical projects. The students can also draw on Knauf documents and systems for their work. Top performers in the study program are also rewarded with the Knauf Graduation Award.

Close ties between theory and practice

The establishment of the first endowed professorship in the Faculty of Architecture of the University of Darmstadt was supported by Knauf in cooperation with the Caparol Group. This looks at the holistic design and construction of interior spaces at the interface to the building exterior. The teaching focuses on the topic of drywall and lightweight constructions.

An important sustainability sub-project of this cooperation is the joint development of the ClimaDesign_Laboratory. Architects learn here how to combine energy-optimized construction with their design and planning work. The laboratory offers space for conducting experiments with various materials, devices, and techniques. In addition, energy concepts are developed, design workshops are conducted, and exercises performed on measuring instruments.

Thanks to the close cooperation with industrial companies such as Knauf, the students gain valuable insights into the production processes for building materials, get involved in practical workshops and are given an opportunity to implement the theory into practice. The two chair holders, Prof. Dr.-Ing. Jochen Pfau (Rosenheim) and Prof. Kerstin Schultz (Darmstadt), have now become firmly established in the Knauf Academy's circle of advisers.

The Knauf Academy is committed to further expanding its university contacts, establishing networks, and organizing joint projects with educational institutions. Meanwhile, cooperations exist with more than 70 universities and their Architecture and Interior Design program areas.



70 universities

cooperate with the Knauf Academy

Political dialog supports turnaround in energy policy

The building materials market is largely dependent on the changing energy policy framework, which is determined at different levels of government. Knauf is actively involved in the discussion surrounding the turnaround in energy policy and keeps abreast through own observations and information events. The central issue is increased energy efficiency in the building sector, which accounts for some 40 percent of energy consumption in Germany. Energy-efficient building refurbishment therefore plays a key role in achieving the energy and climate policy objectives of the Federal Government. In order to achieve the targeted doubling of the annual refurbishment rate, Knauf regards it as imperative to maintain continuity of the existing support programs and to offer additional tax incentives for homeowners and small private-sector landlords.

Parliamentary round of talks in Berlin



Federal Minister Peter Ramsauer (2nd. from left) took part together with Alexander Knauf (3rd. from right) in the Parliamentary Breakfast

The management team at Knauf participates in events like the "Parliamentary Breakfast" in the capital Berlin in order to canvass support for these insights and to engage in meaningful dialog. In 2012, Alexander Knauf held discussions with Federal Building Minister Ramsauer, Parliamentary State Secretaries and numerous members of the German Bundestag in relation to solution approaches for improving efficiency in the construction sector. In return, Knauf also welcomes politi-

cal representatives for information visits to company headquarters in Iphofen, for example Federal Building Minister Ramsauer and former German Minister for Economics and Technology, Michael Glos.

Knauf also engages with politicians on other topics and invites decision makers to visit the plants. For example, Lower Saxony Environment Minister Dr. Stefan Birkner visited the Stadtoldendorf plant and found out about the process of manufacturing gypsum boards and the status of approval procedures for regional mining areas.

Strong commitment at association level

Knauf also seeks solidarity with key business associations in order to establish optimal conditions in the construction sector.

BDI initiative "Energy Efficient Buildings"

The company is committed to the "Energy Efficient Buildings" initiative organized by the Bundesverband der Deutschen Industrie (BDI). BDI acts as an umbrella organization for more than 20 different companies and associations across different sectors and aims to support politics in achieving its objectives with concepts for the construction sector. In this sense, the BDI initiative develops proposals for eliminating barriers to investment, provides information about initiative technologies, and supports legislative projects.

Membership of the DGNB

With its commitment to the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB), Knauf places further emphasis on association activities for achieving a modern building stock. The 1,200 member strong DGNB aims to provide further support to encourage sustainable building. In this regard, it focuses on functional aspects, technology, processes, and location in addition to economy, ecology, and user comfort when planning and implementing sustainable buildings and urban districts.



Maurizio Casalini,
President of Eurogypsum and
Manager at Knauf Italy



Scientists and practitioners from companies like Knauf collaborate on an interdisciplinary basis on the various DGNB committees for this purpose.

Knauf helps shape the role of trade associations

Of particular importance is the Bundesverband Gips (BV Gips) in Germany and Eurogypsum at EU level. BV Gips involves itself in political and professional lobbying and has numerous committees, which deal with specific specialist topics, such as raw materials and the environment, technology and standardization, or energy. Knauf is both involved on the board of BV Gips and in most of the specialist committees. The Research Association on Gypsum, which operates under the auspices of BV Gips, has regular access to federal grant funds for scientific projects. Scientists from Knauf work with experts from other German companies to successfully implement research projects.

Knauf is likewise represented on the board of the Eurogypsum trade association. Maurizio Casalini, Manager at Knauf in Italy, was appointed President in 2012. Individual topics are processed by a steering committee as well as various other specialist committees, of which Knauf employees consistently feature as members – sometimes also in management roles.

In addition to its association activities in the gypsum industry, the company is also involved in important interest groups in the building materials sector, such as for example the Industrieverband WerkMörtel e.V., the Verband Deutsche Bauchemie e.V. and the Fachverband Wärmedämm-Verbundsysteme e.V.

Research activities with European partners

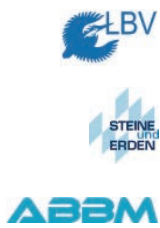
Knauf views its cooperation with strong partners in the area of research and innovation as an important priority. After all, only a joint approach by government, business and science seems to hold the key to overcoming the challenges involved in increasing energy effi-

ciency and sustainability in the construction sector. Knauf therefore demonstrates its commitment through continuous involvement in comprehensive research projects funded by the European Union. Consortia of companies and scientific organizations are generally formed for this purpose, which carry out research projects over a period of three to four years. Among the priorities are projects which focus on optimized energy efficiency based on new materials and technologies and which investigate the feasibility of concepts for decentralized generation and storage of energy in buildings.

The recently launched research project ELISSA ("Energy Efficient Lightweight-Sustainable-Safe-Steel Construction"), which involves eleven partners from five countries, is just one of the projects in which Knauf plays a supporting role as coordinator. ELISSA looks primarily at the possibilities for using nano technologies for building construction in lightweight construction including metal elements. Not only is this project expected to deliver lower costs, but also higher energy efficiency, reliable fire safety as well as improved vibration control for buildings in areas with increased susceptibility to earthquakes.

Joint action with nature conservation associations

Knauf develops a range of activities in cooperation with associations to achieve a balance between recovery of raw materials and conservation of nature. Together with other Franconian companies, Knauf is a member of the working group on "Quarries and Gravel Pits as Habitats" of the Landesbund für Vogelschutz in Bayern e.V. The working group focuses on practical conservation work in the mining areas by providing nesting opportunities for birds. Provision of information equally plays an important role supporting field trips for school classes as well as exhibitions and lectures.



Committed to biological diversity

Knauf also maintains contact and dialog with the environmental associations through the Bayerische Industrieverband Steine und Erden e.V. and the Arbeitsgemeinschaft Bayerischer Bergbau- und Mineralgewinnungsbetriebe e.V. Apart from early conflict avoidance on mining projects, the focus here is on establishing regional alliances for safeguarding biological diversity.

At national level, Knauf has taken the initiative and is elaborating a joint declaration on the topic of excavation of raw materials and nature conservation together with the Naturschutzbund Deutschland e.V..



Knauf seeks collaboration with nature conservation associations for renaturing quarries

Responsibility for employees

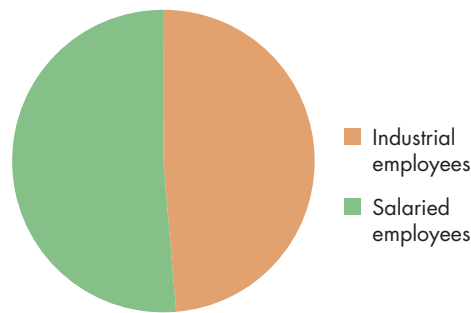
Knauf employees have a large part to play in the company's success. Their dedication, skill, and motivation are based on achieving Knauf's values of entrepreneurship, commitment, partnership, and *Menschlichkeit* in daily working practice, while their individual performances contribute consistently to shared team success. This is the basis on which the Knauf Group as a whole can continue to grow sustainably.



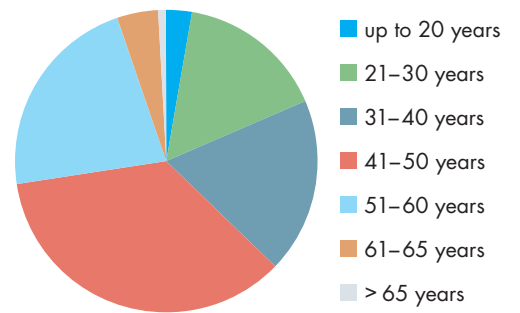
Excellent prospects from the outset

Knauf greatly values its employees, fosters a corporate culture that is characterized by trust, and offers attractive conditions and benefits as an employer. This will allow the company to attract new, qualified employees in the future and to retain existing employees thanks to the variety of development opportunities.

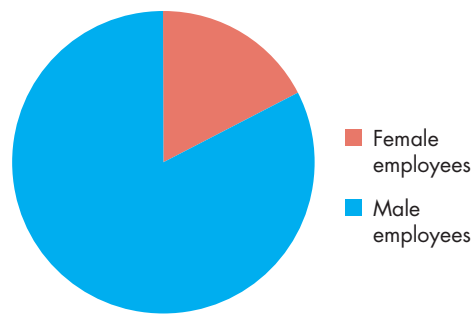
Number of employees in all of the companies covered by the report: 2,500 (as at 2012)



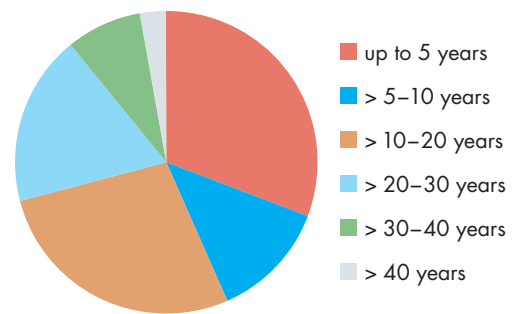
Ratio of industrial and salaried employees



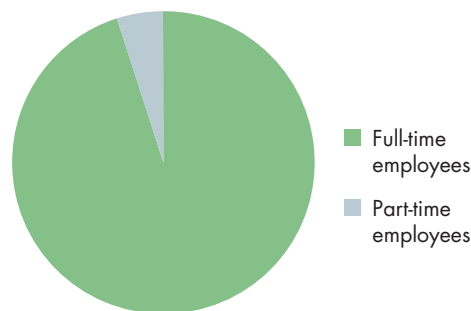
Age profile



Ratio of female and male employees



Length of service



Ratio of full-time and part-time employees

Developing young talent, attracting employees

Ensuring highly trained specialists is critical for underpinning our company's success. As demographics change, the recruiting and retention of young talent takes priority alongside development of human resources. Knauf takes its responsibility seriously, especially its high level of commitment to vocational training.

Attractive training offers

Knauf offers ambitious young people a broad range of twelve different training programs in commercial, industrial, technical, and IT-oriented professional fields. A total of 80 trainees took part in training programs in the Knauf companies covered by this report in 2012. The numbers in training have been increasing significantly in recent years. At the same time, Knauf has invested heavily in the training infrastructure, for example in apprentice workshops and additional training rooms. Some 90 percent of trainees who successfully complete their training with Knauf receive an offer of employment from the company. The fact that Knauf trainees are frequently among the best of class in the vocational school and receive Industrie- und Handelskammer awards following their examinations is a testament to the quality of the training.



approx. 90%

of trainees receive an offer of employment from the company following successful completion of their training



Dihk President Prof. Driftmann hands over the award to National Champion Alexander Ixmeier

More than 350,000 trainees took part in the Deutsche Industrie- und Handelskammer (DIHK) examinations in 2012. The top achievers were crowned National Champions in Berlin. Knauf employee Alexander Ixmeier accepted the prestigious award as Germany's best-of-class machine and plant operator from DIHK President Prof. Hans Heinrich Driftmann.

Dual study courses link theory and practice

Alongside vocational training, dual study courses are becoming a second important pillar at Knauf for attracting qualified young talent. They offer the possibility of ideally combining theory and practice and therefore providing the foundation for a successful professional career. During the practical phases, the students gain insights into different areas of the company and the associated areas of responsibility. It is here they learn from the outset to take on responsibility and work independently. Moreover, team work, creativity, and self-initiative are also encouraged as part of cross-study project work. Knauf has been offering high school graduates the opportunity since 2012 to embark on a professional career with the company through a course of dual studies and at the same time receive an academic qualification. Three dual study courses are being offered initially:

- Business Administration Retail Sector
Construction/Plumbing (Bachelor of Arts)
- Applied Information Technology
(Bachelor of Science)
- Business Information Technology
(Bachelor of Science)

Knauf cooperates with the Baden-Württemberg Cooperative State University (DHBW), which offers hands-on training integrated into

the curriculum at twelve locations in the southern German federal state. As a training company, Knauf strives to combine the practical placements with the study phases at the university. This means that the theoretical curriculum content can be deepened and consolidated by practical experience.

Training Day

Knauf organizes a Training Day every year in Iphofen and opens its doors for students, graduates, parents, and other interested parties. The company presents the various opportunities for education, training and dual study programs. Both trainers and trainees from Knauf are on hand for personal discussions. There are also guided tours around selected trainee locations as well as numerous information points, where trainees and their mentors report on their experiences in the vocational school and company. Moreover, young people can test themselves with job interview training.

Girls Day – Hands-on and do-it-yourself technology

Young women with a good education still opt disproportionately for "typically female" careers. This means they are not exploiting their career opportunities by far. Companies in technical and natural sciences areas have to increasingly pay attention to securing qualified junior staff. Knauf therefore participates regularly in Girls Day – the nationwide vocational orientation day for girls. An opportunity is provided in Iphofen to become familiar with technical professions and the individual working areas of the company. In addition, the participants can try out their own talents and abilities in completing smaller practical tasks, for example building an electrical circuit in the training workshop.



Girls Day

Knauf participates regularly in the nationwide vocational orientation day for girls.



Knauf opens its doors to young people and their parents on Training Day.

Enthusiasm for future technologies

Knauf has intensified its activities to encourage young talent to take up technical professions through its active membership of the "Initiative Junge Forscherinnen und Forscher e.V." (Young Researchers' Initiative). The Würzburg based non-profit educational institution aims to inspire children and young people of both sexes in future technologies and motivate them to choose a career in the so-called MINT professions – mathematics, information technology, natural science, and technology. In cooperation with teachers, parents, universities, and industrial partners, IJF offers interesting formats such as research campaigns and experiments on nanotechnology, bionics, or electronics, which are particularly suitable for use in public events such as open days or career information days.

Forums such as these allow Knauf to make contact with students who are interested in technology and allows Knauf to present itself as an attractive training-focused company. The first project arising from the IJF cooperation was a plant tour for 8th and 10th-grader students from schools in Iphofen and Kitzingen. They were able to observe the work of the research and development department and the associated laboratory technology and take a close look at conveyor line production.

Job fairs promote contacts

Knauf is also strengthening its profile as an employer and training company by participating in numerous events. In the northern Bavarian region these include the Girls Day and Training Day, education and training fairs, school visits, and career fairs. At national level, Knauf attracts interest among its target groups through its participation in the "Absolventenkongress" graduate job fair in Cologne. This is the biggest job fair in Germany where students, graduates, and those entering the job market get to meet potential employers in person and introduce themselves. Some 250 companies of all sizes and from all sectors present themselves with their

job and career opportunities and provide insight into the corporate culture. The job fair program is rounded off by an individual career consultation by the organizers.

Regional training offensive in Südharz

Knauf demonstrates special initiatives in the area of training in Rottleberode. The plant will have to replace a large number of experienced employees in the foreseeable future owing to age-related departures. The company is therefore actively recruiting for apprenticeships in industrial mechanics and process engineering as well as skilled workers for warehouse and logistics. At the same time, Knauf offers introductory traineeships where school students can try out whether combined work and study is for them.

Dedication to training above and beyond the call of duty

In addition to the training it carries out at its own locations, Knauf is also committed to training apprentices in related industries. For example, Knauf experts regularly instruct carpentry trainees in the Vocational Training Center in Würzburg on the topic of drywall



Carpentry trainees receive instruction from Knauf experts

construction. Some 60 apprentices are not only trained in theory, but can also deepen the acquired knowledge and information through practical application. For example, the carpentry apprentices discover how to build metal stud walls, hang ceilings, and plaster surfaces professionally. Drywall construction in its holistic form is still by no means a common ingredient of training in carpentry. The Vocational Training Center Würzburg plays an important pioneering role in this respect.

Encouraging and developing employees

As a family business Knauf places great emphasis on its HR policy and networked structures, along with demonstrating a strong role by decentralized partners at other company locations. Company headquarters at Iphofen represents a further key aspect of personnel work as this is the seat of administration, and the workplace of many of the company's senior executives. Some 45 percent of senior executives live close to the location – in the district of Kitzingen – and are integrated in the communities. This represents an important link between corporate activity and public life in politics and communities. Knauf observes

this principle at other locations and production facilities, with the company's executives living in the immediate vicinity of the premises.

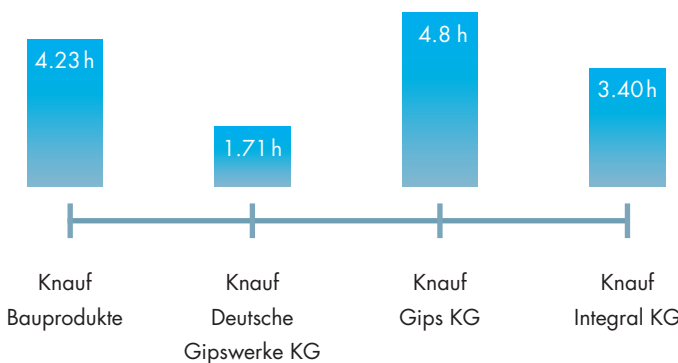
Selection of senior staff does not take place largely through recruitment, rather on the basis of continuous staff development. Open positions are advertised in the local press and on Knauf's homepage.

Knauf acknowledges its responsibility to ensure more equal career opportunities for men and women. The company intends to catch up here. Because there are still no female employees in management positions in the companies covered by this report, Knauf intends to increase female participation at all organizational levels. This objective is to be achieved by making Knauf more attractive as an employer and to offer a wider choice of part-time positions to ensure a better balance between work and family.

Further education and training ensure state-of-the-art knowledge

The professional expertise of its employees is a valuable resource for Knauf. It has to be encouraged and developed since the level of professional expertise required is increasing at an ever faster rate owing to the rapid pace of technological progress. Knauf sets store by internal educational programs in order to ensure that this expertise is fit for purpose and up to date. Seminars are offered in a variety of module and topic areas:

- Methods and key qualifications
- Management expertise
- Knauf know-how
- Technology-specific seminars and management techniques
- Sales-specific knowledge
- Foreign language skills
- IT systems and applications
- Health care management



The further education and training statistics* provide information for 2012 on how many hours each employee spent on average participating in events organized in the framework of Knauf's educational program.

* Employees additionally take up offers outside of Knauf's educational program. These include distance studies, evening classes, certificate courses, etc. An hourly account is not possible here unfortunately.

In recognition of the employees' commitment to further training and education, certificates are also being awarded from 2013 onwards for successful completion of educational courses, for example the Knauf further

training certificate or the Knauf junior managers' certificate. The evening award ceremony takes place every year with management in attendance.

Guidance and motivation through employee reviews

Encouraging employees also means motivating them to excel and giving them clear guidance. This primarily includes exemplary management behavior, close dialog between management and employees, and fair assessment of work performed. An important tool is the employee review, which Knauf has been performing to a greater extent since 2012. This involves an open and trustful exchange between manager and employee. The review includes an assessment of target achievement for the previous year and new objectives and opportunities for the coming year are defined. The manager and employee decide jointly on which further education and training measures could be helpful in fulfilling the development objectives and opportunities outlined. This ensures a link between the employee reviews and further education and training in terms of targeted staff development.

Talent management promotes young professionals and executives

Knauf would like to give young and dedicated professionals and executives the opportunity to take on responsibility early in their career and prove themselves in implementing challenging tasks. At the same time this allows the company to recognize and encourage talent and to fill management positions from within the company's own ranks. Knauf commenced its International Talent Management Program based on this initiative back in 2010. Since then, more than 200 young professionals and executives from over 30 countries have taken part in seminars conducted by the renowned St. Galler Business School. These seminars focus on developing skills and knowledge in the areas of staff leadership

and management. Apart from continuously enhancing their knowledge, the participants regarded the opportunity to exchange views at an international level with Knauf colleagues from different countries and business areas as particularly important. 75 people took part in the Talent Management Program in 2012. The program will be continued in 2013 and supplemented by various events in the regions and branches.

Safe and healthy working conditions are a priority

Satisfied employees perform better. Knauf therefore takes responsibility for ensuring compliance with the strictest work safety standards and invests continuously in a company health care system that includes a broad range of offers and programs. To this end, Knauf documented its principles of action in an occupational health and safety policy in 2012. This documents the following main objectives and obligations:

- Reduce the number of dangerous situations and accidents through consistent further education and training
- Ensure compliance with statutory occupational health and safety regulations
- Implement an effective health and safety management system in all areas of the company
- Ensure continuous improvement, management, and adaptation of the health and safety management system in relation to the areas of health care, occupational safety, fire safety, and operational safety
- Identify occupational illnesses as well as analyze and evaluate workplace accidents based on internal and external audits
- Enforce Knauf safety standards



Eye and respiratory protection are firmly anchored in Knauf's safety standard

Knauf safety standard provides the framework

The Knauf safety standard referred to in the previous objectives is a binding statement of action that must be observed by all executives in order to firmly anchor a comprehensive policy of occupational health and safety. This standard is to be introduced at Knauf locations at the end of 2013 in areas where it had not already applied. Its main components include definition of competencies and responsibilities as well as requirements with respect to risk assessments, measuring the effectiveness of occupational health and safety measures, emergency planning, or the contents of the training programs for employees. The requirements are backed by Knauf's safety guidelines, which state precisely how a measure is to be actually implemented.

Knauf's safety standard already fulfills the OHSAS 18001 standard (Occupational Health and Safety Assessment Series), which has become established in more than 80 countries as a recognized standard for exemplary occupational health and safety in companies. Knauf's compliance with this standard was confirmed through the awarding of the quality seal "Sicher mit System" ("Systematic Safety") by the Berufsgenossen-

schaft (BG RCI). Application of Knauf's safety standard is to be rolled out internationally to all of the company's locations in the coming years.

Examples of compliance with Knauf's safety standards include optimized procurement and the use of special protective clothing. Not only does this clothing fulfill the applicable regulations and guidelines from a technical perspective, the red signal color and reflective strips ensure better visibility. The uniform look and feel of the Knauf collection also reinforces the visualization of a coherent corporate design concept.

Training contributes to promotion of health

Knauf promotes the health of its employees through a comprehensive training concept in the framework of the educational program. Employees are instructed gradually, for example, in immediate life-saving measures. The first-aid seminars cover topics such as resuscitation measures, wound care, and responses to impaired consciousness and respiratory disorders. What is important to Knauf is to convey knowledge concerning health awareness at and outside the workplace. Seminars on the topics of ergonomics and mobility, healthy nutrition as well as stress prevention and stress relief are conducted with the motto job fit.

Executives, specialists, and works councils undergo parallel training on corporate integration management, which is devoted primarily to legal principles, issues of prevention, rehabilitation, and integration as well as discussions surrounding return to work following illness. The range of seminars offered is rounded off by programs for improving mental fitness at work based on self-coaching methods for improving personal stress management.

Health management tailored to life phases

Knauf also expect to see demographic changes relating to the age of its employees. Even today, the largest employee group are those aged between 41 and 50 years (35 percent). Activities will therefore focus more sharply in the future on the needs of the different life phases. This primarily affects maintaining the physical and mental fitness of employees in the framework of occupational health management.

Local initiatives on health and safety

Events held at the various Knauf locations also focus on information about maintaining your own health and leading a healthy lifestyle. For example, the Knauf Gips KG plant at Lauffen organized its second Health Day in June 2012 with the motto "Healthy employees – Healthy company". Cooperation partners included the AOK health insurance company and the team company physician Dr. Brillinger, who carried out blood tests, while the AOK offered BioAging tests, blood pressure measurements, body fat analysis, tips on healthy eating, and a self-test for checking alcohol levels. A fitness studio pre-

sented special features of electrical simulation training. Moreover, participants were able to take skin analysis tests and find out about the topic of hearing protection.

The company also encourages employees to use their own initiative by joining in sporting activities to keep fit and healthy. These activities focus on football, gymnastics, basketball, beach volleyball, swimming, hiking, and gym visits.

Family-friendliness is a top priority

Employee satisfaction and motivation are also encouraged by ensuring optimal harmony between family, private interests, and professional life. With this in mind, Knauf employees already have the option of flexible working models. In addition, employees can also work from telecommuting workplaces at home once certain requirements are fulfilled. Job-sharing models provide additional flexibility when needed. The company intends to increase the availability and scope of part-time positions to make it easier for parents with small children to re-enter professional life.

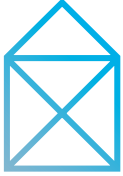
Knauf also understands its family-friendly policy to mean providing support for employees in finding daycare in Iphofen as well as financial assistance in cooperation with the state. Moreover, commuters can also count on Knauf to provide assistance when it comes to arranging childminders, laundry care, and house hunting. The high percentage of fathers in the company who take parental leave is furthermore a true testament to the family-friendly culture at Knauf. Further education and training offers aimed at ensuring the best possible work/life balance also ensure enrichment at a psychological level to the benefit of family life.

Knauf's commitment to family was honored in 2012 with a Top 5 award for "Most Family-Friendly Employer" in Mainfranken and with the title "Especially Family Friendly".



First-aid course for Knauf employees is part of the training program

Knauf encourages the younger generation to reflect on sustainability



72 children

took part in the painting competition for employees' children.

Knauf would like to ensure its commitment to sustainability is communicated to a greater extent to the company and the workforce. With this in mind, the company introduced a painting competition for employees' children between the ages of 3 and 14 years. The motto for the competition was "My vision of a house in the future". Excellent creativity was shown by the 72 children who took part and who, in addition to general day-to-day topics, also considered options in relation to climate protection and nature conservation. Solar roofs and thermal insulation also featured among the themes. The top prizes in the three age categories were family outings to the Playmobil FunPark at Zirndorf, the Deutsche Museum in Munich, and the Mathematikum science museum in Gießen.



The winning pictures from the painting competition



The employees' children who took part in the painting competition on the topic of sustainability

Annual Company Party strengthens "togetherness"

As a sign of appreciation and solidarity with its employees, the Knauf family, management, and the works council organize an annual Knauf Company Party. Company employees attend along with retired employees and their partners, and has become firmly anchored in tradition at Knauf. Held at the Karl-Knauf Hall in Iphofen, guests are well catered for and musical entertainment is provided. But this is not the only reason why the Company Party is

so well received: To further strengthen the sense of community of the international Knauf family, each year two partner companies present the typical culinary specialties of their home country. In addition to Knauf Aquapanel from Dortmund, the Knauf subsidiary in Switzerland did the honors in 2012 with specialties like Swiss cheese and chocolate. Knauf and its employees also look after their social obligations with the proceeds of the raffle donated to a good cause.



Typical regional specialties can be sampled at Knauf's Company Party

Employees organize the first Knauf Sustainability Day in Iphofen

Sustainable action is matter of course for Knauf – eco-friendly products, energy efficiency, and social commitment are a living reality.

The first Knauf Sustainability Day with the motto "By and for staff – Together we can make a difference" aimed to make the topic of sustainability a reality of everyday working life to contribute to achieving sustainability. Various sustainability measures were launched under the patronage of Alexander Knauf on July 10, 2012.

Empty parking spaces reduce CO₂

Employees fill some 800 parking spaces every day at Knauf headquarters in Iphofen. It goes without saying that Knauf employees not only want to reduce this number, but also increase awareness for alternative modes of transport. The motto on Sustainability Day was therefore: "The parking lot stays empty today!"

An internal carpooling arrangement was organized in Knauf for this purpose, which will also remain in place beyond the Sustainability Day. Many employees took part and formed car pools, got on their bicycles, or used public transport. This meant that approx. 130 parking spaces did actually remain empty. This corresponds to a saving of approx. 4,000 kilometers or half a ton of CO₂.

In order to ensure the impact of the campaign also reaches beyond Sustainability Day, many employees donated the money they saved from their participation in the campaign. Management doubled the amount, which was then used to plant fruit trees on the premises and thereby create a sustainable Knauf orchard.

Regional cuisine in the cafeteria and lunch on the move

The cafeteria staff also got involved in Sustainability Day with a great selection of special dishes – made exclusively from ingredients sourced locally. The theme continued after lunch with its motto "lunch on the move". Various sports stations were assembled in the empty parking lot with the assistance of the AOK health insurance company, including goal shooting or test rides on an electric bike.



Many employees left their cars at home and got on their bicycles



There was great interest in information and measures on sustainability

Commitment to society

For Knauf, being guided by its values also means taking responsibility at community level. The company therefore supports cultural and social projects in a variety of ways. The ideas and commitment of its employees are especially important in this respect.



Responsibility for culture and social projects

Knauf places special emphasis on promoting culture. The Knauf Museum in Iphofen is at the heart of this. Since it opened its doors in 1983, the Baroque building has been exhibiting a unique permanent collection of reliefs from all the great cultural epochs of humanity.

Knauf Museum presents cultural treasures from around the world

The idea originated with Dr. Alfons Knauf, who has spent his life conducting research on gypsum. He began assembling the collection in 1973 and it now extends to 200 original casts of significant works of art from the most prestigious museums in the world. In order to ensure continued interest in the Knauf Museum and to also continue providing new impetus for the cultural life of Iphofen and the region, a series of special exhibitions commenced in 1987 which are continued to this day. These exhibitions either pick up on contents from the permanent exhibitions or are devoted to entirely new topics, such as the cultural history of Tibet, Japan, or Egypt. The idea behind the exhibitions from the outset was both to offer a platform to local artists and to enrich the permanent exhibition with original artworks from remote continents.

A new building was added to the museum in 2011, which houses the special exhibitions. The building fulfills the special requirements of a modern museum building in terms of ecological air-conditioning technology with the power supply from a geothermal plant, visitor and freight elevators, and disabled facilities. This was recognized when the Knauf Museum was awarded the Bavarian Tourism Architecture Award "artouro" for the extension.

The exhibitions are extremely popular both with experts and with visitors who have an interest in art. Up to the end of 2012, more



The modern extension of the Knauf Museum was completed in 2011



The Knauf Museum is devoted to different world cultures

than 800,000 people had visited the museum since it opened its doors in 1987.

Traditional day-tripper destination revitalized

Knauf likewise took on the renovation of a traditional building in Rottleberode. The "Kalkhütte" in Alten Stolberg near Urbach was part of an old limestone kiln building and has been a popular destination for day-trippers for more than 100 years. Following refurbishment and renovation by Knauf, the timber frame construction is now open to visitors again as the "Waldhotel Kalkhütte".

Keeping music traditions alive

Knauf is promoting culture in a different way in the area of music. For more than 50 years, Knauf's orchestra (Bergmannskapelle) and choir (Kappenchor) have provided musical entertainment for many events in Iphofen and its surrounds. Steeped in tradition, the two groups are made up of both current and former Knauf employees as well as music enthusiasts from outside the company. In addition to festive, classical, and folk music pieces, their repertoire also includes modern productions from swing to popular hits.

Donations support social projects

Knauf regards support for social projects as part of its responsibility for the region. And the company's employees are in agreement: For example the proceeds from the raffle at the annual company party are donated to a good cause. A total of EUR 4,600 was donated in 2012 in this way to "Klinikclowns Lachtränen Würzburg e.V.", an organization that provides fun and diversion with their appearances in children's hospitals and retirement homes.

Knauf has dispensed with the tradition of giving presents to customers at Christmas and donating the money saved. Employees can also get involved here and make suggestions as to which projects should benefit from the

money saved. Various clubs and facilities that look after vulnerable people received support from the funds in 2012, amounting to EUR 10,000. These included the "Elterninitiative leukämie- und tumorkranker Kinder Würzburg e.V.", the Carmelite Sisters in the care of the elderly center in Iphofen as well as a homeless project and refugee project for the Community of Sant'Egidio.



Handing over the check to the "Klinikclowns Lachtränen Würzburg e.V."

Plant tours provide interesting insights

Knauf offers residents and visitors to the region the opportunity to get to know the companies located in Iphofen better. In this respect, the Knauf Academy conducted 170 plant tours in 2012 with some 4,200 attendees. The tour includes the gypsum plasterboard production or the logistics center. The underground mining tours in the neighboring Hüttenheim prove particularly popular.



€ 4,600

was donated to the "Klinikclowns Lachtränen Würzburg e.V." in 2012.

Rotband supports non-profit organizations

Knauf addressed another social issue in the form of a campaign to commemorate the 50th anniversary of its classic Rotband product – the gypsum plaster used in a range of application areas in construction. Non-profit



The "Kinderland" daycare facility is renovated in the framework of the Rotband anniversary campaign

organizations were able to apply for a renovation project amounting to EUR 5,000. The only condition was that the number 50 play a role in the idea for the project. More than 50 applications were received, including daycare facilities, church institutions, homes for the disabled, support associations for children and adolescents, seniors' clubs, and women's and mothers' associations. The Rotband



Healthy children are ample reward for our efforts

Jury – made up of Knauf experts, ARD biathlon moderator Kati Wilhelm and biathlete Florian Graf – chose the daycare facility "Kinderland" in Salzatal as the winning project. The hallway and both rooms are to be renovated in 2013 to make them more practical and child-friendly for the 50 after-school children.

Medical aid for Africa

Knauf and its employees are not just committed to providing assistance for local needs. An example of the assistance the company provides in crisis areas of remote countries is its support for the "ARCHEMED – Ärzte für Kinder in Not e.V." organization. This organization provides medical aid for children in their African homeland Eritrea. Doctors from various European countries work together under the umbrella of the aid organization. ARCHEMED is currently building an obstetrics center in Keren, the second-largest city in the country.

At the request of an ARCHEMED association member and Knauf employee, Knauf Bauprodukte GmbH & Co. KG provided all of the materials required for the interior work. The steel profiles and suspension systems for the construction were also donated. A Knauf expert is available on site intermittently in order to provide support for the construction and for maintenance activities. The center is due to open its doors in 2013/2014 and should be able to cater for more than 3,000 births per year.



ARCHEMED e.V. helps to build obstetrics centers in crisis areas

Sport sponsorship for young people

Support for sporting activities forms an important part of Knauf's social commitment. The company focuses on promoting young up-and-coming talents. For example, Knauf is one of the supporters of the s.Oliver Baskets Academy in Würzburg, where young basketball talents are prepared for their leap into competitive sports. Another project is the "Kati Camp". Knauf supports former biathlete Kati Wilhelm as her partner who invite the best young biathletes every year to join in a weekend event. Apart from participating in sporting competitions, the 14- and 15-year olds are given the opportunity to listen to interesting presentations on sports-related topics and to exchange ideas among themselves.

event which attracts approx. 10,000 visitors has now become the largest non-commercial children's and family festival in the entire Südharz area. An important regional information event also took place in parallel with the family fun day in 2012, which was supported by Knauf. Companies from the area presented themselves in the framework of a training and careers exhibition with the motto "Stay here". The aim of the event was to encourage young people to engage in training and education locally and thereby prevent a lack of urgently needed skilled staff.

Commitment to the Südharz region

Knauf has supported social life in the village of Rottleberode in Südharz as well as social cohesion in the region for many years. In addition to supporting various sports clubs, a focal point of its support is the annual family fun day which has taken place every year since 2011 at the company's premises. The



The region pulls together – Family fun day at Knauf's premises in Rottleberode

GRI Content Index

This sustainability report is based on the guidelines of the Global Reporting Initiative (GRI), Application Level C.

The Global Reporting Initiative originated in 1997 with the aim of developing globally recognized sustainability reporting guidelines and thereby enabling comparability between companies from different sectors and of different sizes in relation to economic, ecological, and social aspects.

GRI Indicator	Page	Status	Comments
1. Strategy and Analysis			
1.1	Statement from the most senior decision maker of the organization about the relevance of sustainability to the organization and its strategy.	3, 17–19	●
2. Organizational Profile			
2.1	Name of the organization	7	●
2.2	Primary brands, products, and/or services.	7–8	●
2.3	Operational structure, including main divisions, operating companies, subsidiaries, and joint ventures.	7–9	●
2.4	Location of organization's headquarters.	7	●
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	7	●
2.6	Nature of ownership and legal form.	7, 10	●
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	7–8	●
2.8	Scale of the reporting organization.	7, 17–19	●
2.9	Significant changes during the reporting period regarding size, structure, or ownership.		● First sustainability report
2.10	Awards received in the reporting period.	22, 34, 73–74	●
3. Report Parameters			
Report Profile			
3.1	Reporting period for information provided in the report.		● 2012
3.2	Date of publication of most recent report (if any).		● First sustainability report
3.3	Reporting cycle.		● Every two years
3.4	Contact point for questions regarding the report or its contents.		● Sabrina Klimansky Knauf Gips KG Am Bahnhof 7 97346 Iphofen, Germany E-mail: Sustainability@knauf.de

GRI Indicator	Page	Status	Comments
Scope and Boundary of Report			
3.5	Process for defining report content, including: – Determining materiality – Prioritizing topics within the report, and – Identifying stakeholders the organization expects to use the report.	12–13, 15–21, 54–55	●
3.6	Boundary of the report	3, 7	●
3.7	Specific limitations on the scope or boundary of the report.	3, 7, 17–21	●
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability of the reporting periods or data between organizations.		● First sustainability report
3.10	Effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement.		● First sustainability report
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.		● First sustainability report
3.12	GRI Content Index	82–84	●
4. Governance, Commitments, and Engagement			
Corporate Governance			
4.1	Governance structure of the organization.	7	●
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	7	●
4.3	For organizations that have a unitary board structure: State the number of members of the highest governance body that are independent and/or non-executive members.	7	● Not applicable
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.		● A company suggestion scheme has been in place at Knauf since 1975. Suggestions for improvement can be submitted from all areas of the company. These suggestions are examined by Knauf experts. Employees are rewarded if the suggestion is implemented. The level of the award is determined by the significance of the improvement and the savings thus made. Furthermore, it is possible to propose ideas, suggestions, or other information in the forum of the employee reviews.
4.14	List of stakeholder groups engaged by the organization.	54–55	●
4.15	Basis for identification and selection of stakeholders with whom to engage.	54–55	●

GRI Indicator		Page	Status	Comments
Performance Indicators				
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	14–15, 42–44	●	
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	70	●	
EN2	Percentage of materials used that are recycled input materials.	24	●	
EN12	Description of significant impacts of activities, products, and services on biodiversity.	47–52	●	
EN13	Habitats protected or restored.	47–52	●	
EN16	Total direct and indirect greenhouse gas emissions by weight.	44	●	
LA1	Total workforce by employment type, employment contract, and region.	7, 66	●	
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	69–73	●	
LA9	Health and safety topics covered in formal agreements with trade unions.	71–72	●	
LA10	Average hours of training per year per employee by employee category.	70	●	
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting the business activities in a community or region.	78–81	●	
SO5	Public policy positions and participation in public policy development and lobbying.	62–64	●	
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	35, 40	●	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	58–61	●	



Statement GRI Application Level Check

GRI hereby states that **Knauf Gips KG** has presented its report "Thinking and acting responsibly. Sustainability Report 2012" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level C.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 16 October 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint, large watermark of the GRI globe logo in the background.

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative



The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 8 October 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

Abbreviations

AG	Aktiengesellschaft – Stock corporation
approx.	approximately
BDI	Bundesverband der Deutschen Industrie – Federation of German Industries
BNB	Bewertungssystem Nachhaltiges Bauen des Bundes – German National Standard for Sustainable Building
BV Gips	Bundesverband Gips – German Gypsum Association
CAD/CAM	Computer-Aided Design/Computer-Aided Manufacturing
CE	Communautés Européennes
CLP	Classification, Labeling and Packaging of Substances and Mixtures
CO ₂	Carbon Dioxide
dB	Decibel
DGNB	Deutsche Gesellschaft für nachhaltiges Bauen – German Sustainable Building Council
DIHK	Deutscher Industrie- und Handelskammertag – German Chamber of Industry and Commerce
DIN EN	Deutsches Institut für Normung/Europäische Normen – German Institute for Standardization/European Norms
DIY	Do-It-Yourself
EU	European Union
e.V.	eingetragener Verein – Registered association
ELISSA	Energy Efficient Lightweight-Sustainable-Safe-Steel Construction
EPBD	Energy Performance of Buildings Directive
EPD	Environmental Product Declarations
EWI	External Wall Insulation
FGD	Flue gas desulfurization
FSC	Forrest Stewardship Council
GHS	Globally Harmonized System of Classification, Labeling and Packaging of Chemicals
GmbH	Gesellschaft mit beschränkter Haftung – Private limited company
ISO	International Organization for Standardization
IT	Information Technology
IWM	Industrieverband WerkMörtel e.V.
KG	Kommanditgesellschaft – Limited partnership
LEED	Leadership in Energy and Environmental Design
OHSAS	Occupational Health and Safety Assessment Series
Prof.	Professor
REACH	Registration, Evaluation and Authorization of Chemicals
t	tons
WDVS	Wärmedämm-Verbundsysteme – Thermal insulation composite systems

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All of the information contained in this report has been compiled in good faith and with great care and attention from various sources. The information, figures, and data contained herein are to our knowledge accurate. No liability shall be assumed however for this information being complete or correct.

A particular thank you goes to all colleagues from the various departments in the reporting companies, who contributed articles, pictures, and information and who assisted with proofreading the report.

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