

SUSTAINABILITY REPORT 2014

Witzenmann GmbH

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SUSTAINABLE GROWTH

Good market position strengthened further and reasonable levels of growth achieved



“Over the past year, we have achieved a further milestone in the development of the Witzenmann Group which has allowed us to strengthen our good market position even further. The current financial year is also on track.”

*Dr. Hans-Eberhard Koch,
Chairman of the Board*



“With our investment rate of more than 7%, we are well above the average for the sector. Key investments are being made in expanding our capacity and in further developing our technological competitive edge.”

*Dr. Gerhard Flöck,
Managing Director
for Human Resources, Finance,
Controlling, Materials*



“It is only through high-quality products, optimised processes and innovative solutions to problems that we are able to achieve our targets for growth. Witzenmann customers value our engineering expertise.”

*Dr. Andreas Kämpfe,
Managing Director
for Technology and Quality*

In 2013, the group increased its turnover by € 24.2 million to € 497.1 million. This represents an increase in turnover of 5.1% in relation to the previous year.

One key aspect that Witzenmann is able to profit from is its international locations. Two thirds (66.5%) of its turnover was achieved abroad in 2013. Turnover in Germany continues to remain stable and operations in other European countries have recorded slight increases. Growth continues to be buoyed by the companies in the USA and China.

This development is characterised by the continued growth of the automotive sector and positive development in the industrial applications sector. Stricter environmental standards, enhanced demands on quality and the need for efficient drive concepts mean that a wide range of applications are available to Witzenmann solutions.

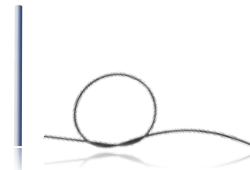
Future markets are being opened up in the classic industrial markets. 2013 saw the successful implementation of major trendsetting projects which required innovative solutions. The workforce also benefits from our growth in turnover. At the end of 2013, more than 3600 people were employed by the Witzenmann Group. In line with the growth in turnover, the number of employees outside Europe is also increasing significantly. This development has also led to an increase in coordination and management activities required for the international subsidiaries at the headquarters in Pforzheim.

The prerequisites for further growth are being created, not least through planned investment totalling around € 39 million in the current financial year (compared with € 31 million in 2013). € 16 million is set to go to the headquarters in Pforzheim.

A range of opportunities are also available to Witzenmann as a result of further globalisation of its business activities and due to the fact that it is constantly adding new applications for flexible metallic elements.

OUR PRODUCTS

Efficient, durable and reliable



Medical technology

Liquid-tight and gas-tight miniature metal hoses from Witzenmann are, amongst other things, suited for highly specialised applications in medical technology. Witzenmann is one of just a few companies in the world that manufactures hoses with an inside diameter of 0.3 mm. The sturdy and durable metal hoses protect the fibre cables of endoscopic probes, are biocompatible and meet the strictest sterility standards.



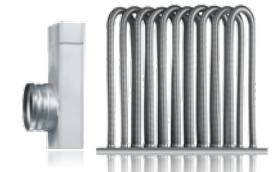
Environmentally friendly engine technology

In a variety of passenger and commercial vehicles and in large propulsion systems for ships, aircraft and railway vehicles, Witzenmann products are installed close to the engine and in the exhaust system. Oil and gas recirculation lines increase the efficiency of internal combustion engines and decoupling elements compensate for the structure-borne noise and movements of exhaust systems and turbochargers. Aside from reducing pollutant and noise emissions, they allow fuels and resources to be used more efficiently and ensure long, low-wear operating periods of the power units.



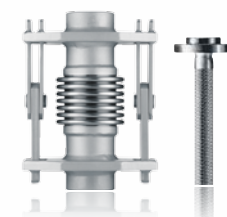
Use of renewable energy

Witzenmann technology is used in systems that use renewable energy sources: in tidal power stations and offshore wind farms, flexible elements provide a high level of reliability, ensuring long intervals between maintenance. Special materials are used that are able to withstand the corrosive salt in the wind and water. In solar thermal energy, solar connectors and expansion bellows absorb thermally induced movements within the system.



Safe and efficient buildings

Witzenmann components are used in a wide variety of applications. In heating and hot-water circuits, they guarantee the reliable function of lines and power units. In sprinkler systems and gas lines, the high safety requirements for flexible metal hoses are the focus. Flat ducts for residential building ventilation provide a cosy indoor climate. Coiled corrugated hoses are installed as heat exchangers in stratified storage tanks. They have a much larger surface area than plain tube coils, which facilitates energy exchange and allows them to work effectively.



Industrial engineering and plant construction

In plant engineering and construction, chemistry, petrochemistry, the steel industry and in power stations, large expansion joints, hangers and connecting pieces from Witzenmann meet the most challenging demands. First of all, components need to compensate for thermal expansion in large-scale plants and absorb stress. What's more, the (sometimes aggressive) media to be routed places high demands on the materials used.

TRUE TO OUR PRINCIPLES

Witzenmann is a family-run company where the people in charge have always placed a high value on the concept of sustainable business.



By joining the United Nations Global Compact, Witzenmann is pledging itself to its 10 principles, which formulate clear requirements on the subjects of human rights, labour standards, environmental protection and fighting corruption. In accordance with the prescribed statutes, we have promised to publish an annual report on our progress with respect to implementing these principles and supporting the UN objectives for sustainable development. The 2014 progress report documents the current status of our activities.

Companies that sign the Global Compact promise to ...

- ... support and respect the protection of internationally proclaimed human rights within their sphere of influence
- ... make sure that they are not complicit in human rights abuses
- ... uphold the freedom of association and the effective recognition of the right to collective bargaining
- ... uphold the elimination of all forms of forced and compulsory labour
- ... uphold the effective abolition of child labour
- ... uphold the elimination of discrimination in employment and occupation
- ... support a precautionary approach to environmental challenges
- ... undertake initiatives to promote greater environmental responsibility
- ... encourage the development and diffusion of environmentally friendly technologies
- ... work against corruption in all its forms, including extortion and bribery

The aspiration of sustainable business is firmly anchored in the history of the company. Company founder Heinrich Witzenmann considered himself to be in a position of particular responsibility with respect to his employees and his home town of Pforzheim. After more than 150 years ago in business, the fourth and fifth generations of the founder's family still have a majority stake in Witzenmann. Continuity and a long-term perspective are key guiding principles in our corporate strategy. We strive to make a special impact on the community, one that goes beyond our business activities. At a time of globalisation, this responsibility also applies to our corporate sites in different countries and on different continents.

VISION 2025

“We will secure our global presence through market leadership in America and Asia. The annual turnover will exceed one billion euros by this point.”

The guiding corporate principles act as a guide and form the core values for all employees of the Witzemann Group. The guiding corporate principles are the foundation for our Group's activities as well as its future development. They incorporate our corporate vision and describe the corporate objectives and strategies that we wish to use to achieve our vision. Vision, strategies and objectives determine our activities over long-term periods. These elements are influenced by social and technical change, as well as by market trends, and must therefore be reviewed and modified on a continuous basis. The corporate guidelines are the guiding principles for our activities and the leadership principles are the benchmarks our managers use to carry out their tasks.

Mission

The Witzemann Group is a global reference for challenging and technical engineering issues relating to vibration decoupling, absorption of expansion, media transport and balancing of assembly inaccuracies in piping systems. As an experienced development partner, we offer our customers intelligent and superior solutions with our flexible metallic elements. Our corporate mission manifests itself in our company motto “managing flexibility”.

Corporate objectives

- Profitable growth
- Global supplier
- Technology and innovation leadership
- Quality leadership
- Excellence in personnel
- Financial independence
- Sustainability

Corporate strategy

- Growth strategy
- Globalisation and Group strategy
- Technology strategy
- Quality strategy
- Personnel strategy
- Financial strategy
- Sustainability strategy

Corporate guidelines

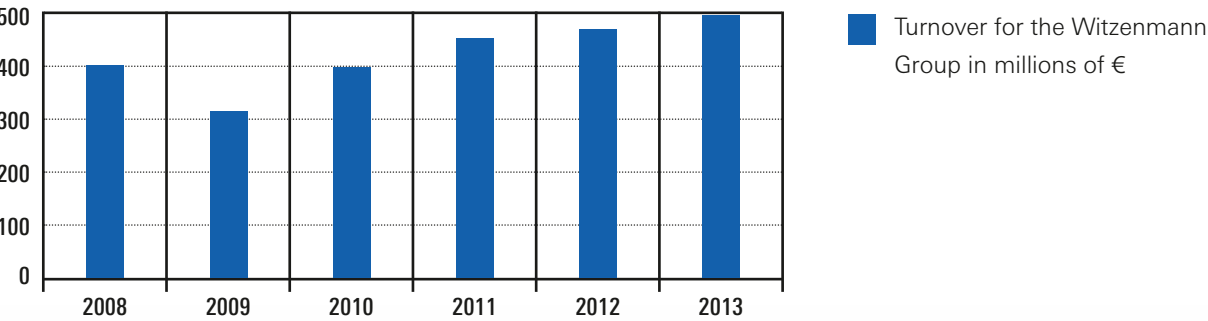
- Social responsibility and responsibility to society
- Independent family company
- Reliable partner
- Long-term business planning
- Knowledge and learning
- Equal opportunities and cultural diversity

Leadership principles

- Cooperative management style
- Entrepreneurship
- Focus on performance
- Responsibility and encouragement
- Integrity and cooperation
- Shaping change
- Health-orientated management

FINANCIAL DATA

Turnover development



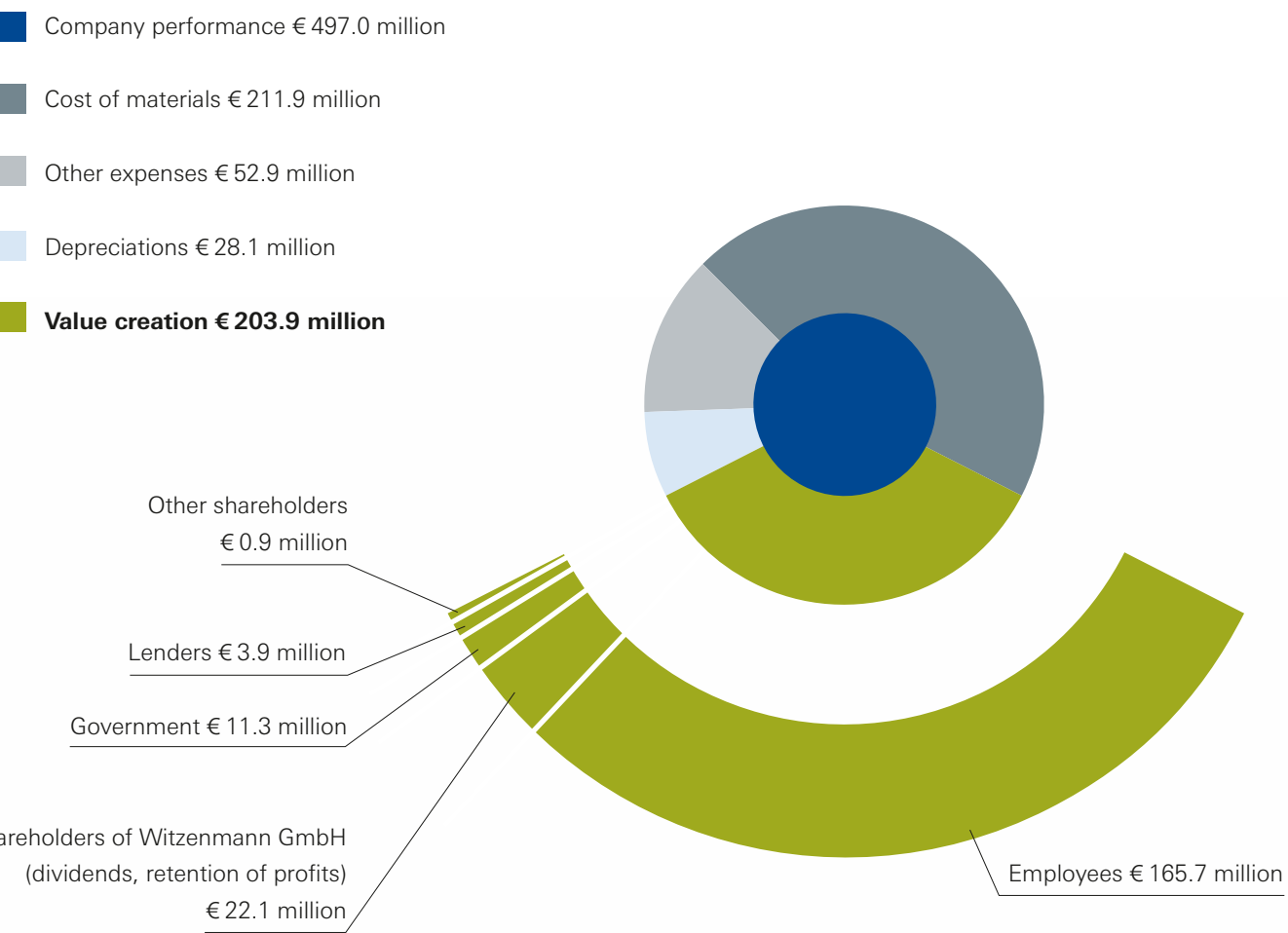
Financial data for the Witzenmann Group

Turnover		2012	2013
in total	millions of €	472.9	497.1
in Germany	%	35.1	33.5
in Europe (excl. Germany)	%	34.2	33.1
in America	%	18.0	18.4
in Asia	%	12.4	14.7
in Africa	%	0.3	0.3

Turnover by sector		2012	2013
Automotive industry	%	55.5	53.9
Industry	%	34.9	37.7
Technical building equipment	%	8.4	7.2
Aerospace	%	1.2	1.2

Investment and equity		2012	2013
Investments	millions of €	32.6	30.9
Depreciations	millions of €	25.4	28.1
Equity ratio	%	49.9	51.7

Value creation of the Witzenmann Group 2013



Value creation

Value creation is produced from the company performance minus expenses, depreciations and costs of material. It quantifies the Witzenmann Group's contribution to private and public income. The graph above shows how this contribution is distributed among all the parties involved.

RESPONSIBILITY

Witzenmann offers all its employees the same opportunities regardless of age, sex, religion, ethnic origin, sexual orientation or disability.



We strive to provide secure and rewarding jobs for our workforce, as well as giving them a stable standard of living. Consequently, we shape working processes and career progression in our company so that our workforce enjoy their work, as well as being able to achieve a beneficial work/life balance. All Witzenmann locations are designed on the basis of a broad understanding of occupational health and safety. As a family company, Witzenmann is particularly committed to continuously improving scope for combining work and family for men and women alike. We offer more mature employees working conditions which enable them to enjoy a satisfying working environment even at an advanced stage of their career. We encourage and support non-native staff in their training and professional development. Group-wide cooperation between the Human Resources departments in the subsidiaries and the headquarters ensures that the

processes and standards relating to HR work are harmonised. Human resources forums ensure regular communication between the departments. One of the aspects that is currently being discussed relates to how a global qualification system with standardised instruments could be designed and implemented. An international project team has been formed to handle the coordination of the steps.

The Witzenmann Academy offers employees of the Witzenmann Group a broad range of training and professional development opportunities. A large proportion of new employees both at the headquarters and the subsidiaries complete basic or advanced training, or take part in subject-specific seminars, knowledge or strategy forums, or management training courses as they progress through the company.

The subsidiaries are also encouraged to act on their own initiative when it comes to putting the measures in place that are needed on site. For example, Witzenmann Korea works to raise safety awareness among its workforce and, in addition to regular health checks, it also runs campaigns on occupational health and safety and carries out annual employee surveys on occupational safety.



A good example of the special support offered to young people is the support year, which is put into practice at the headquarters and is based on a employers' association and trade union model. Disadvantaged young people who have poor prospects on the jobs market receive targeted support to broaden their horizons with respect to training and employment. The young people's attitude for work and training are developed where possible both within the company and at school. Particular assistance is provided in terms of helping the students get to grips with their school work and improving their social skills. The aim is to enable the young people to complete Witzenmann's standard training programme. Ziver Aktas is one of the participants who has made the transition to the standard dual training programme.

COMPLIANT



The “Acceptance of Benefits” guiding principles were published with the letter of the Executive Management on 25 October 2005 and are compulsory for all employees of the Witzenmann Group.

In accordance with these guiding principles, all employees of the Witzenmann Group are obliged to discharge their duties in an objective manner. As the acceptance of benefits can jeopardise or completely rescind this objectivity, any suggestion of being susceptible to accepting personal benefits while carrying out their professional duties is to be avoided. In addition, it is made clear that corrupt behaviour is a punishable offence and is contrary to an employee's obligation to discharge his/her professional duties in an objective manner.

The guiding principles define the different types of benefits and specify the criteria for benefits that either require or do not require approval. They also express anti-corruption codes of conduct. The “Acceptance of Benefits” guiding principles are stored on the intranet of the Witzenmann Group.

GLOBAL COMMITMENT

The Witzemann Group has been driving forward internationalisation since the 1990s. Their strategy is guided by the central principle of producing for the local sales markets in the local sales markets. This means establishing extensive know-how at the various sites – with respect to both products and production processes. In the emerging markets in particular, development of the sites also contributes to improving the living conditions of the people there. In line with the guiding principle of the Witzemann Group companies regarding social responsibility and responsibility to society, the individual entities also make a contribution to their communities that goes far beyond their economic activities.

In addition to lending its support to purely charitable projects, the Group also puts sponsorship measures in place. The target group is primarily children and young people who receive support or funding for their training and professional development. Other activities include the promotion of culture or focus on environmental conservation.

The financial backing of regional cultural facilities and support of schools and higher education establishments plays a key role at the headquarters. It is also worth mentioning employees' involvement in hands-on projects such as their active support of a "duck race" held by trainees or the sale of home-baked cakes – both of which were in aid of local or national charitable organisations. A whole host of examples can also be found at our subsidiaries:



Witzemann Korea

- Cooperation with the Shinbang Elementary School. Sponsorship and support measures (focal points: intercultural cooperation, globalisation and information technology)
- Agreement with the neighbouring Shinbang village community to sponsor social projects

Witzemann do Brasil

- Support of the "Legal Apprentice" social project to develop the school and education system and the "Organisation Social Opportunity" social project (schooling and vocational training for disadvantaged and disabled young people)

Witzemann Benelux

- Cooperation with workshops and companies for disabled people
- Donations to non-profit organisations and initiatives (children's cancer association, Child Focus and diabetics association)

Witzemann China

- Employees encouraged to participate in "No Driving Day" to cut down CO₂ emissions
- Participation in "Clear your Plate" campaign (online campaign by a non-governmental organisation against food waste)
- Scholarships for high-achieving students from low-income families
- Donation to the Baobei Foundation, which works to help orphans

EMPLOYEES & SOCIAL POLICY

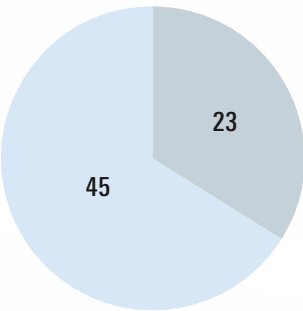
Workforce (as at 31.12.)

Witzenmann Group		2012	2013
Total number of employees	People	3485	3617
in Germany	People	1895	1946
in Europe excl. Germany	People	1029	1026
in America/Asia	People	561	645

Witzenmann Academy			
Employees on the High Potential programme	People	11	12
External costs for training and professional development	€ K	574	571
Number of seminars	Number	285	332
Participants in training and professional development seminars	Number	474	507

Witzenmann GmbH			
Total number of employees	People	1638	1680
Non-manual workers	People	634	658
Manual workers	People	934	940
Apprentices/trainees	People	70	82
Proportion of women	%	19.5	19.6
Proportion of men	%	80.5	80.4
Number of part-time employees	%	5.6	6.7
Severely disabled persons & persons regarded as such	People	68	67
Average age	In years	41.9	42.2
Average length of service	In years	12.3	12.5
Participants in employee activities	People	330	365

Health management at Witzenmann GmbH 2013

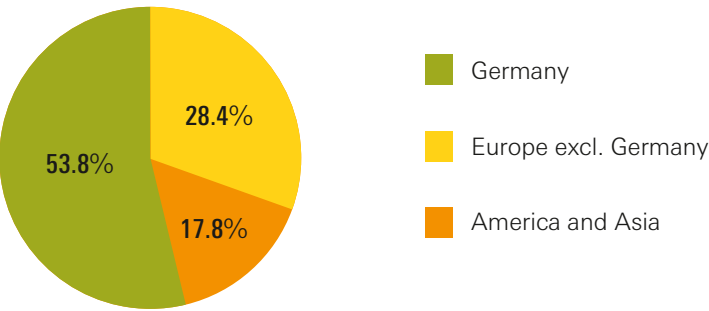


891 occupational health checks in 2013

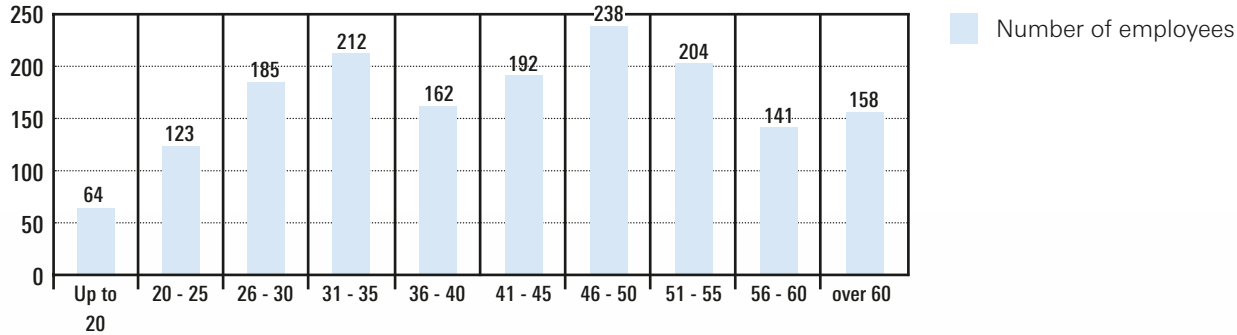
- Number of non-reportable accidents where employee was unable to work for fewer than 3 days
- Number of reportable accidents where employee was unable to work for more than 3 days (incl. accidents travelling to/from work)

Reportable accidents		2012	2013
For every 1000 employees	Number	25.6	26.9

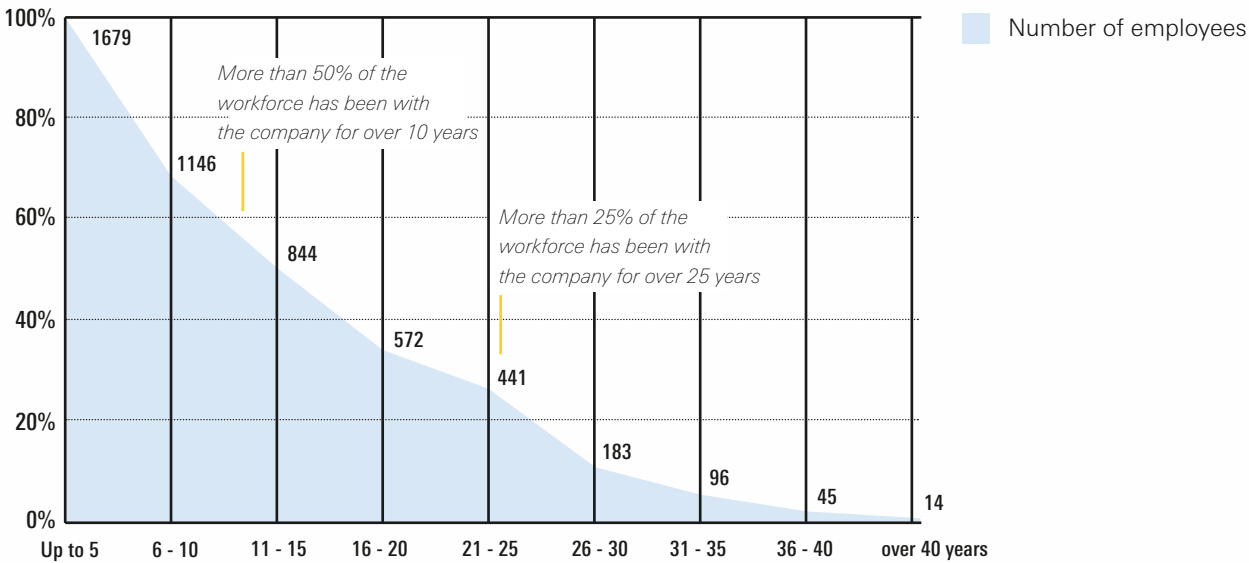
Witzenmann Group workforce 2013



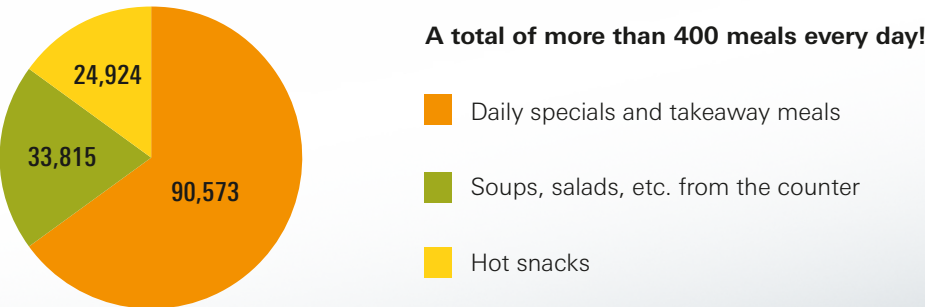
Age distribution of the workforce at Witzenmann GmbH 2013



Years of service of employees at Witzenmann GmbH 2013



Meals sold at Witzenmann GmbH 2013



SHAPING GROWTH: AN INTERVIEW WITH PROF. DR. MARIO SCHMIDT



Prof. Dr. Mario Schmidt is one of Germany's leading experts on energy and material flow management and operations resource efficiency. He has been Professor of Environmental Management at Pforzheim University since 1999 and Director of the university's Institute of Applied Research (IAF) since 2002. Prof. Dr. Schmidt serves on numerous committees in an advisory capacity and has been involved with the Parliamentary Advisory Council on Sustainable Development in Baden-Württemberg since 2012. He has been working closely with Witzenmann as part of a research project that sets out to determine greenhouse gas emissions. With the aid of the "Climate & Carbon Calculator for Companies" (CliCCC) method, which was developed by his team, Prof. Dr. Schmidt has spent the last few years calculating the trend of CO₂ emissions generated by our company based on preliminary work and preliminary products.

Based on his assessment, "environmental and social conditions – and not just the price – have a role to play. Witzenmann recognises this, which is great!"

Sustainability is the latest buzzword that everyone is talking about. Which aspects do you find particularly important?

It is a question of ensuring that we as a society are able to remain in existence over the long term; first and foremost, that we protect the environment on which we depend, that we are able to create living conditions that are fit for everyone on this planet, and that our descendants are not worse off than we are today. These are demanding goals and ones which we are a long way from achieving. But we are working on it ...

How much work is still to be done in Germany and in Baden-Württemberg?

Sustainability is a state that we can actually only assess in retrospect. And, strictly speaking, it is something that can only be evaluated on a global scale, as everything today is

interconnected. It is therefore difficult to say how well we are doing right now. The question we should really be asking ourselves is as follows: What are our strengths as an industrialised nation in the context of these global challenges? Knowledge, innovations, technological progress – all made possible thanks to our highly developed infrastructure and the social stability in our country.

Companies need to operate with a focus on profit. Measures for improving sustainability are renowned for swallowing up a lot of money and for restricting growth. Is that really the case?

No, not necessarily. Growth is a natural occurrence and doesn't have to be at odds with sustainability. The whole of nature is constantly changing as a result of growth processes. When a farmer cultivates his field, he then lives off the growth

from his crops. But there are limits. Forcing unrestrained growth will ultimately lead to failure in the long run. Take the following example: over the last few years, China has experienced momentous economic growth of up to 10% per year. But when you analyse China's environmental statistics, you come to the conclusion that the damage to the environment accounts for around 10% of China's gross domestic product, i.e. the same rate as its annual growth! So, this rapid growth has been at the expense of the environment and was more or less achieved by destroying the earth's natural capital. It is therefore important to strike the right balance. Gluttony and greed are not sustainable virtues.

The need to act sustainably has been recognised by western industrialised nations. But what is the situation globally? How can we reconcile emerging economies aspirations for growth with sustainable business practices?

It is always easy to make tough demands of others from the comfort of your sofa! But we all know that it has little effect on our football teams. And when it comes to sustainability, these tough demands are directed at everyone. We also need to bear in mind the fact that many of us aren't simply sitting on a comfy sofa. The overwhelming majority of people on this planet aren't suffering from excess – they are affected by a shortage of material goods. And that determines economic growth, even material growth! So we need to shape growth, make it environmentally and socially compatible, and make significant improvements in environmental and resource efficiency. We can use our knowledge and our strengths to do this. With global teamwork.

Witzenmann is one of the companies that use the CliCCC analysis that you and your team developed to determine their greenhouse gas emissions. What are the advantages of this method, in particular for medium-sized industrial operations and small companies? CliCCC is a climate assessment tool that allows us not only to look at the greenhouse gas emissions released by Witzenmann, but which also takes into account indirect emissions (known as climate rucksacks) that are caused by the materials that are purchased, by suppliers or by what we refer to as the upstream chain. In the industry, these are known as scope 3 emissions. However, it is not always easy to get hold of the figures for suppliers, particularly for medium-sized companies who are unable to exert any pressure on them. That's why we use methods based on national accounts, which we have then methodically enhanced and which provide us with estimates for the upstream chains.

What do the results of the CliCCC analysis tell us and what recommendations can we derive from them?

The current results reveal that it is predominantly the emissions associated with the supply of raw materials, for example steel and metal, that have a major impact. As in such cases a company has hardly any scope to influence their suppliers, i.e. in terms of how the suppliers produce their steel, one recommendation could be for the company to manufacture their products in a way that uses the materials more efficiently. With each kilogram of material it saves, Witzenmann also reduces its CO₂ emissions. This is an aspect where it becomes clear that energy efficiency and climate protection are closely linked to each other. However, this only becomes really clear when we carry out the relevant analyses. By taking these emissions into consideration, we are also taking responsibility for the upstream value chain. Because it is important to know where the raw materials and preliminary products come from and how they are produced. Environmental and social conditions – and not just the price – have a role to play. Witzenmann recognises this, which is great.

Finally, what is your personal outlook on the future – are you concerned or optimistic?

Neither! I see the future as a challenge, as an organisational task. I don't agree with the Cassandra complex, as it stops us from taking action. But ignorance of environmental problems is also not the right way to go. Yet for decades this was the position held by business, and one that lots of companies and certain regions still take – just take a look at China. However, we are also partly responsible for the damage that has been done to the environment there because we love being able to get cheap products from China. Unfortunately, we will probably have to live with certain environmental problems for a long time to come as we as a human race cannot agree on solutions quick enough. We will therefore have to accept that some species will become extinct, that a certain amount of climate change will take place and that the environment will change as a whole. In many respects that is a very depressing thought! But, on the other hand, humans are the world's most adaptable species. And apparently we are also an intelligent one ... so we need to start acting like it! And the sooner the better.

Note: The results of the CliCCC analysis are presented towards the end of this report.

INNOVATIVE DEVELOPMENT



3 product generations: the first series-production component (left), compact component (centre) and filter element

Boasting a broad range of products, Witzenmann offers troubleshooting solutions for vibration decoupling, expansion compensation in pipelines, flexible mounting and conveying of various fluids. As a development partner for customers ranging from the automotive and industrial sector, technical building equipment and other markets to the aerospace industry, Witzenmann has its own machinery/tool and prototype construction departments as well as comprehensive testing equipment. Intensive cooperation with customers and in-house development work allows Witzenmann to make continual, innovative improvements to its products and processes. In the automotive industry, Witzenmann supports its customers in implementing environmentally friendly and efficiency enhancing solutions.

Exhaust gas recirculation lines

The exhaust gas recirculation (EGR) lines are used to remove fractions of the exhaust gas flow from the exhaust system and to resupply this to the fresh intake air upstream of the combustion process in the cylinder. This results in a significant drop in combustion temperatures, which in turn generates a sustainable reduction in NO_x and CO₂ emissions in compliance with the tightened statutory requirements. In modern turbo engines, particularly diesel engines and increasingly petrol engines too, the exhaust gas is removed downstream of the particulate filter in the low-pressure section and routed back to the exhaust gas turbocharger compressor in a cooled state. This exhaust gas contains soot and can also carry tiny ceramic particles along with it, which can cause damage to the blades of the compressor wheel. To prevent this, high-temperature-resistant filter screens have to be installed in what is known as the low-pressure exhaust gas recirculation system (LP EGR). Witzenmann has developed a special component with a filter screen, which has now been successfully integra-

ted in various customer vehicle series. In addition to the space saved with what are still tight installation conditions, the integrated solution is simpler with respect to design, coordination and assembly with a level of pressure loss that is lower in functional terms. Using LP EGR offers consumption savings in selected cases of up to 15% for petrol engines.

Electromobility – battery technology

The flexible corrugated hoses which are installed in the hybrid series of another customer are already in series production. This hybrid concept requires the installation of high-performance electric accumulators. Generators on the wheels convert the kinetic energy generated during braking into electricity and store this in these “additional batteries”. Electric traction is stored from these accumulators. If the accumulators become overloaded, gases are emitted that must not be allowed to enter the passenger compartment. Witzenmann provides elements that admit these gases at the battery units and convey them outside underneath the vehicle.



PREVENTION IS BETTER THAN CLEANING

Technical cleanliness is becoming increasingly important in modern industrial production.

Car and commercial vehicle suppliers in particular are being confronted with strict cleanliness requirements from their customers. This is primarily due to the increasing use of components and systems installed close to the engine which are susceptible to contamination as well as longer warranty periods. Beyond looking at customer requirements, it is also worth considering technical cleanliness from the point of view of sustainability. Wherever possible, Witzenmann attempts to ensure the required level of technical cleanliness based on the concept of prevention and process optimisation. In addition to avoiding the use of most cleaning agents that are harmful to the environment, this approach also saves on resources.

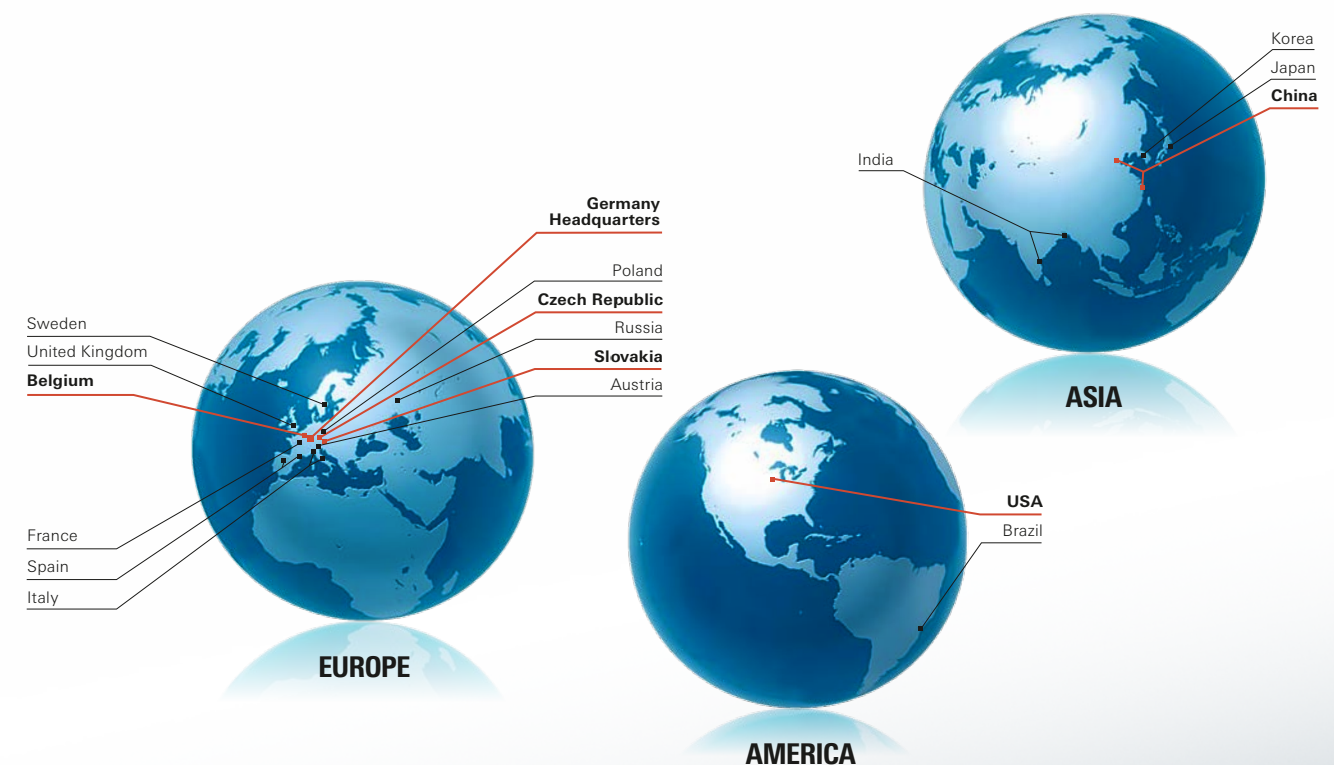
End-to-end approach

Aspects relating to technical cleanliness are also incorporated in project evaluation and production coordination processes. Even before a tender is submitted, these aspects are optimally coordinated with one another along with all the parameters relevant to the product and production. Comprehensive information is available for this purpose via a knowledge database and regular training courses. The result of this end-to-end approach is an order processing strategy that is optimised in terms of resources and procedures.

Technology transfer throughout the global production network

Witzenmann produces its "cleanliness" components at its Pforzheim headquarters as well as at Witzenmann sites in Belgium, the Czech Republic, Slovakia, China and the USA. Thanks to the database mentioned above, intensive exchanges of information between company representatives and subject-specific workshops, Witzenmann is able to transfer its technological knowledge right across the Group, including with regard to technical cleanliness. The installation of western European standards for production processes and manufacturing equipment goes hand in hand with the transfer of technologies and cleanliness requirements. As a result, the company is able to ensure that the right facilities are in place with respect to occupational safety and guarantee a high-quality working environment.

Production sites with cleanliness requirements



MANAGING SUSTAINABILITY

The varied nature of the steering committee's work ranges from specific projects to higher-level coordination measures.

The sustainability steering committee held its inaugural meeting on 12 April 2013 and has been meeting on a regular basis since then. The committee's key tasks include bringing together and coordinating the measures, campaigns and efforts of Witzemann with respect to doing business sustainably. The steering committee is led by the company's sustainability officer, Philip Paschen, and meets to discuss the relevant themes:

- Klaus Althuon, Electronics Workshop Foreman
- Tobias Reisacher, electronics workshop
- Ulrike Brandauer, Marketing and Public Relations
- Alexandra Funk-Sutthimer, Controlling
- Sven Luekermann, HR Management, Health Management
- Ulrich Noeding, Materials Management
- Rene Pflittner, Environmental Protection Officer

The committee concerns itself with the areas of human rights, labour standards, environmental protection and fighting corruption, discusses these as a management-level and interdisciplinary team, and formulates measures and proposals for action for the Executive Management. The topics to be dealt with cover a broad spectrum and are often closely interrelated in various ways and at a wide range of levels. The members of the steering committee ensure that all the relevant issues for a subject are taken into account to the greatest extent possible.

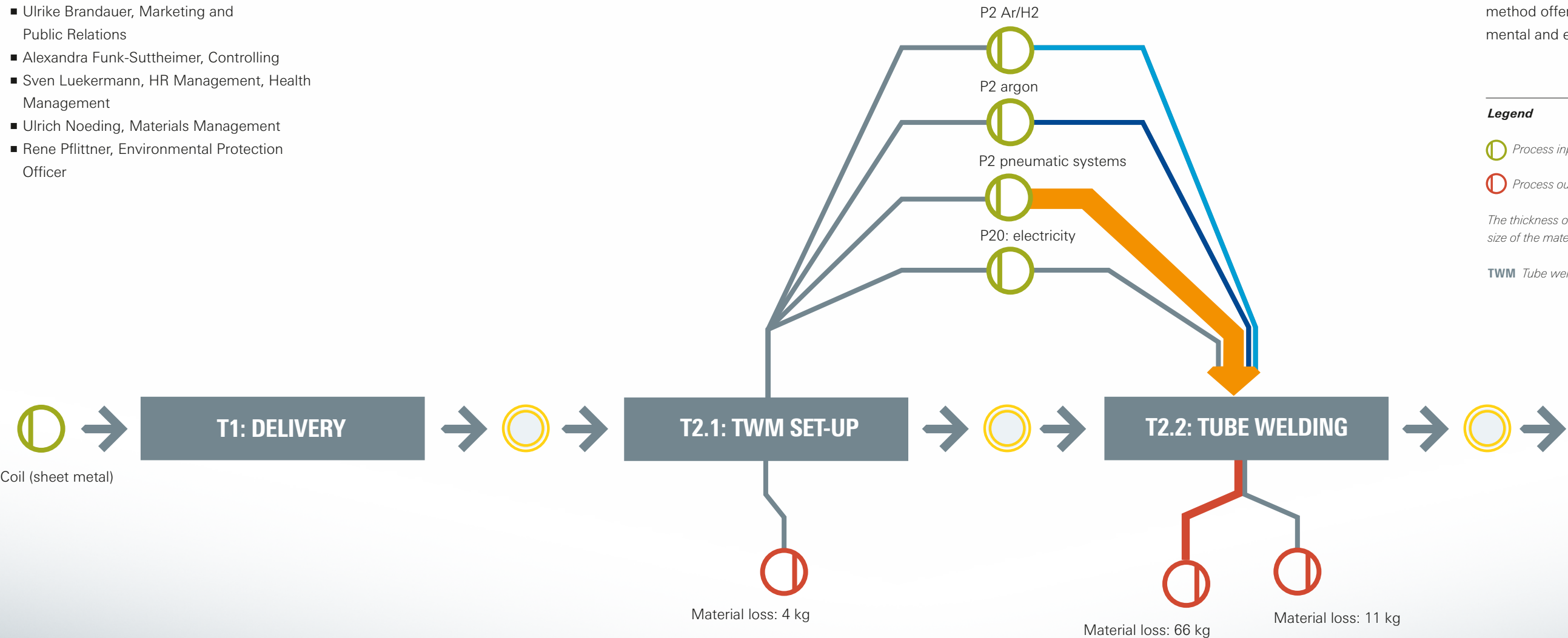
Material flow accounting

One example is the material flow accounting project. This involves carrying out an end-to-end analysis of the material and energy flows within a company. As part of this approach, all of the expenditure required for a production process is given a monetary value and potential areas for improvement are determined.

In contrast to the standard accounting process, the hidden costs relating to material loss are also incorporated into the calculation.

These are the wage, material and investment costs, etc. that are included in the part of the material that is lost as waste (e.g. an offcut of sheet metal).

This process analysis reveals the added value that is lost and is therefore highly significant with respect to the material, cost and environmental efficiency of a production process. In close cooperation with students from the Resource Efficiency Management degree programme at Pforzheim University, Witzemann has carried out a material flow accounting case study based on a metal bellows production process – with interesting results. Material flow accounting provides Witzemann with a new perspective on its processes and the efficient structure of the method offers the opportunity to make environmental and economic optimisations.



STRIKING THE RIGHT BALANCE

In addition to making trendsetting, strategic decisions, doing business sustainably also involves taking targeted, coordinated measures.

Headquarters, Pforzheim

Target April 2013

- Reduction in energy consumed by the cleaning system (around 10% by doubling capacity)

Implementation

- Purchase of a state-of-the-art aqueous ultrasonic cleaning system

Headquarters, Pforzheim

Target May 2013

- Reduction in energy consumed by exterior lighting at main plant

Implementation

- 20 conventional, 400 W exterior lights replaced by 60 W LED lights
- All exterior lights at the main plant premises now use LED technology

Headquarters, Pforzheim

Target end of 2013

- 5% reduction in cardboard boxes compared to 171 t in 2012

Implementation

- Optimisation of supplier packaging through increased use of mega boxes, circulating pallets, small load carriers – reduction not yet achieved. The target is still being pursued.

Headquarters, Pforzheim

Target end of 2013

- 5% reduction in paper consumed by photocopiers and printers compared to 2011 (4.7 million sheets)

Implementation

- Absolute consumption reduced by approx. 2% by the end of 2013, despite increased number of employees. The target is still being pursued.

Remchingen site

Target February 2013

- Reduction in annual energy consumption by 75 MWh and annual electricity consumption by 16 MWh

Implementation

- Installation and set-up of a centralised compressed air supply system at the Remchingen site

Witzenmann China, Jiangyin City

Target

- Reinforcement of general environmental protection

Implementation

- Company waste-sorting and collection of used batteries
- Raising awareness of how to save water and electricity
- Participation in no driving days to reduce CO₂ emissions

Witzenmann do Brasil, Pinhais – Paraná

Target

- Ensuring and promoting environmentally friendly production procedures

Implementation

- Regular measurement and evaluation of factors affecting the environment (energy use, amounts of waste, emulsions that need to be disposed of)

Witzenmann Benelux, Oelegem-Ranst

Target

- Integration of employees with disabilities

Implementation

- Integration of two employees with hearing impairments

Witzenmann Group

Target

- Proof of origin for all conflict minerals: tin (Sn), tantalum (Ta) and tungsten (W)

Implementation

- Complete check of all materials used.
The analysis revealed around 40 materials containing conflict minerals that are used in Witzenmann products and whose origins can be checked in order to ensure to the greatest extent possible that these do not come from “protected countries”. The underlying objective is to protect mine workers in Central Africa.

CLIMATE ASSESSMENT

CliCCC – Climate & Carbon Calculator for Companies

As in 2010 and 2012, in 2013 Witzemann GmbH has again had its carbon footprint (the greenhouse gas emissions for the headquarters) measured for its Pforzheim and Remchingen sites. The CliCCC analysis is a climate assessment tool that not only takes into account the greenhouse gases emitted directly by the company, but which also considers the emissions caused by the materials that are purchased and the suppliers in what is known as the upstream chain. The emissions are divided into three categories of observation, scopes 1-3.

Scope 1

Direct emissions caused by production and operation of the company.

Scope 2

Weighted emissions caused by the generation and supply of energy for the company.

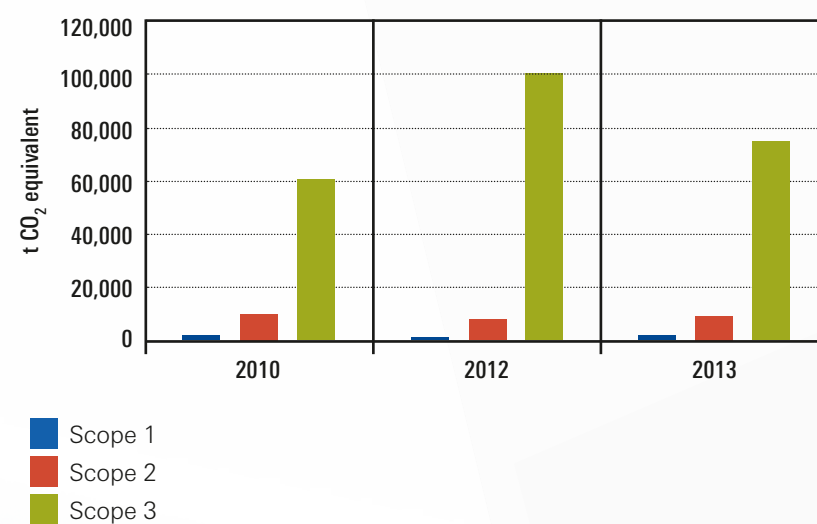
Scope 3

CO₂ balance of the raw materials and semi-finished products used, but also the emissions generated in the manufacture of tools and machines used in production. From the composition of the results for the 2013 reporting year, it is clear that most of the emissions come from scope 3.

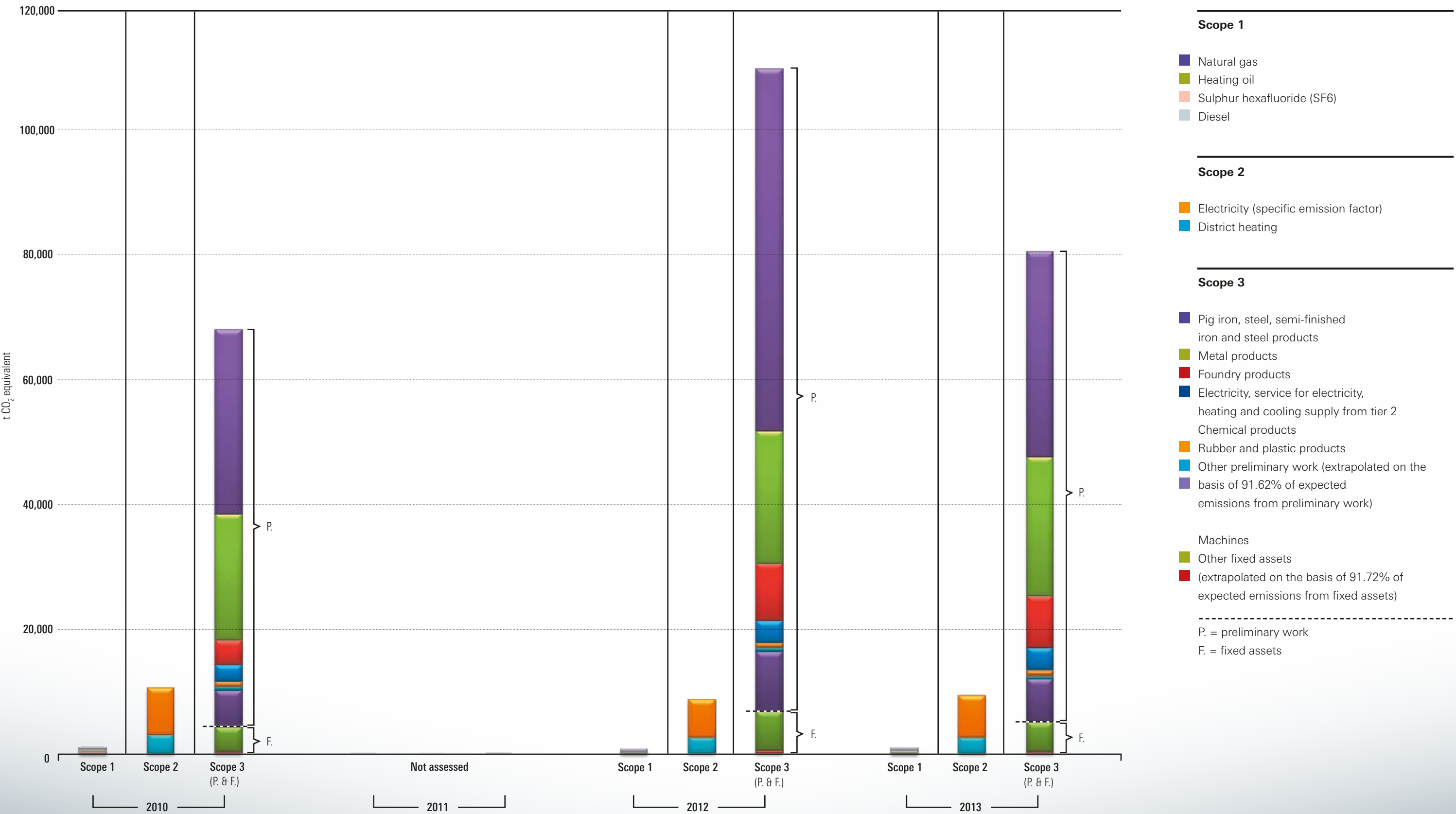
Most of the emissions are in the goods category comprising pig iron, steel and semi-finished iron and steel products, which makes up 36% of all recognised emissions with 32,800 t CO₂ equivalent. The same applies to the goods category comprising metal products, which has 22,161 t CO₂ equivalent and is therefore also above the total emissions from scope 2. Within scope 2, electricity dominates with 6,624 t CO₂ equivalent. Scope 1 is of secondary importance with a score of 916 t CO₂ equivalent. The detailed results are presented in graph form on pages 32 and 33.

Compared with the results from 2012, the recognised total emissions have decreased by 24%. This improvement is due to a reduction in emissions of 27% in scope 3. Emissions from scope 1 and scope 2 have increased by 19% and 8% respectively.

The main approach for achieving further improvements to the CO₂ balance is to investigate whether and at what point the material intensity of the production processes can be reduced.



CLICCC – COMPOSITION OF THE RESULTS



ENVIRONMENTAL PROTECTION

As a leading company in the industry of flexible metallic elements, we feel a particular degree of responsibility to stand up for the protection and conservation of natural resources. Early on, we committed to corporate management based on the careful use of resources. Since 1997, we have regularly published an environmental report in which we document our environmental protection system, how we use our resources and other important key data relating to the environment. You will find a comprehensive presentation of the current data on pages 32 to 34.

Waste management

For many years, we have been achieving a high recycling rate. Only 0.8% of our waste requires disposal.

99.2% recycled

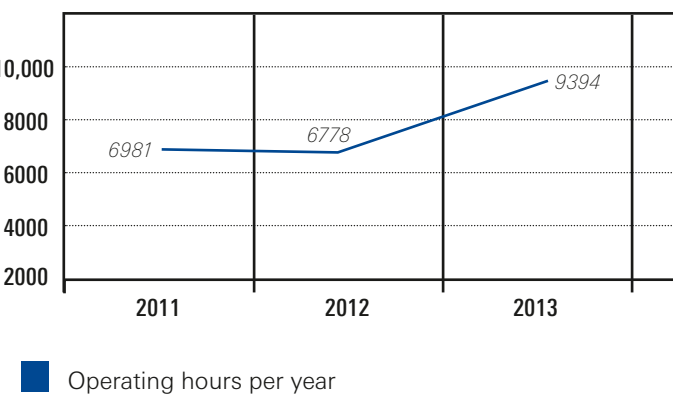
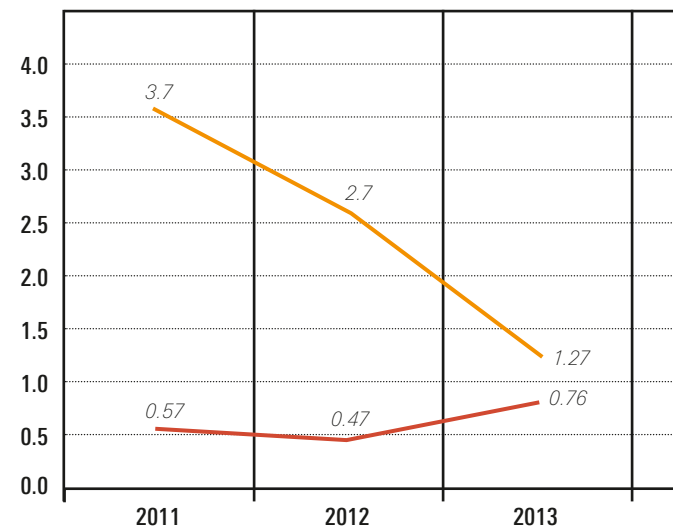
Water consumption

At Witzenmann, approx. 90% of water is used for sanitary purposes. With around 37 litres per employee per day, consumption is low and thus largely optimised.

37 l of water consumed per employee

HCl solvent balance

Optimisation of the PER system in the fz-pEGR production process has led to a clear reduction in the amount of HCl solvent requiring disposal. This was also despite a significant increase in the operating hours for the system.



TECHNOLOGY AND ECOLOGY

Innovation

Witzenmann GmbH		2012	2013
Employee suggestion scheme (ESS)	Number of suggestions	159	218
Performance improvement due to ESS	€ K	927	604
Continuous improvement process (CIP)	Number of suggestions	797	708
Innovative ideas	Number	81	167
Innovation campaigns	Number	0	2
Innovation projects initiated	Number	11	24
Patent applications	Number	37	48

Environment/environmental report

Witzenmann GmbH		2011	2012	2013
Procurement turnover	Millions of €	120.3	127.9	127.8
Plates/tubes/wire	%	17	17	17
Parts/components	%	75	74	75
Energy/auxiliary materials	%	8	9	8
Waste management				
Total volume of waste	t	2450	2392	2262
Recycling rate	%	99.3	99.1	99.2
Water consumption	1000 cbm	35.7	25.4	24.7
HCl solvent balance				
Disposal	t	3.7	2.7	1.27
Emissions	t	0.57	0.47	0.76
Space utilisation	%	152 %	152 %	148 %
Energy				
Electricity draw	MWh	17,223	16,425	16,275
Electricity draw/1 million € of turnover	€	62.9	58.0	58.9
Building heating				
District heating	MWh	9973	9261	9456
Natural gas	MWh	1909	1954	1968
Energy requirement/1000 employees	MWh	7.8	7.1	7.3

Environmentally relevant incidents

Date	Incident	Action
16 May 2012	Trail of oil from gate 1 to corner of building 2	Covered and absorbed with oil binder
29 May 2012	Hydraulic oil leak during machine set-up work by external company	Oil covered with binder and absorbed
13 August 2012	Exhauster fell over in the yard during disposal of bandsaw coolant from the steel bearing	Approx. 200 litres of coolant absorbed with 4 sacks of oil binder
25 August 2012	Hydraulic oil leak from hot test stand – significant oil loss	Absorbed with oil binder
27 August 2012	Disposal of oil binder	General subsequent work

CONTACT



Philip Paschen

The Head of the Corporate Staff Department at Witzenmann GmbH is responsible for strategic planning, lean management, sustainability and compliance.



René Pflittner

In his role as the Environmental Protection Officer, he is the person to contact with regard to all internal and external questions relating to the environment and Witzenmann GmbH.



Jochen Geiger

The Head of the Marketing and Public Relations department at Witzenmann GmbH is responsible for editing the sustainability report.

IMPRINT

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