

SUSTAINABILITY REPORT 2015

Witzenmann GmbH

Östliche Karl-Friedrich-Str. 134
75175 Pforzheim, Germany
Phone +49 7231 581-0
Fax +49 7231 581-820
wi@witzenmann.com
www.witzenmann.de

POSITIVE PERSPECTIVE

Regional diversity as well as a large range of products and applications allows Witzenmann to offset the various economic developments in individual regions and sectors flexibly.



"As a group of companies, we are confident we will be able to reach our sales target of approx. 550-560 million Euros or perhaps even surpass it."

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



"The economic development of the Witzenmann Group in recent years was the basis for strong investments and for strengthening equity capital."

*Dr. Gerhard Flöck,
Managing Director*



"Innovative products and our leading engineering remain a significant factor of the group's success. We are continuously advancing the innovation process at product and process level."

*Dr. Andreas Kämpfe,
Managing Director*



"At the headquarters, the tangible sales growth with significant increase in labour productivity was the key element in improving results."

*Philip Paschen,
Dipl.-Ing./Dipl.-Wirtsch.-Ing
Managing Director*

2014 was a good financial year for us. Witzenmann has developed its excellent market position even further and has even achieved accelerated levels of growth. Indeed, in 2014, the Group once again increased its turnover, which grew by € 28.3 million to a total of € 525.4 million. This represents an increase in turnover of 5.7 % in relation to the previous year. Witzenmann continues to benefit from its broad market position as a global company. More than two thirds of its turnover was generated abroad in 2014. Turnover in Germany grew by 5.6 % in 2014, while business in European countries outside of Germany is only showing slight signs of recovery. Growth continues to be fuelled by the companies in the Americas (+13.7 %) and Asia (+8.5 %), with 35.2 % of the Group's total turnover coming from these areas.

Different economic developments in certain regions and sectors have a balancing effect. Internally, we can react to the most diverse market developments by reorganising capacities.

In 2014, we also published our revised mission statement and distributed it to our employees. The vision, strategies and objectives described in it determine our activities over long-term periods. These are influenced by social and technical change, as well as by market trends, and must therefore be reviewed and modified on a continuous basis. We have revised and partially re-formulated the corporate guidelines and management principles. We have supplemented our corporate objectives by including the goal of sustainability.

We regard sustainability to be a type of management that embraces ecological, economic and social aspects:

- Ecological in the sense that nature and the environment are preserved for future generations
- Economic in the sense that the economy provides a strong foundation for long-term employment and prosperity
- Social in the sense that people find an appropriate and meaningful employment

In addition to the classic environmental issues, resources and energy efficiency are of fundamental importance for the sustainable management of a company. In business process management, we design our processes effectively and ergonomically. In this regard, Witzenmann is also positioned professionally and for the future.

- "We treat colleagues and business partners alike with esteem and respect."
- "We ascribe importance to honest and fair conduct with one another."
- "We actively oppose any form of discrimination and harassment."

These corporate guidelines and management principles from our mission statement best describe in an exemplary manner how the Witzenmann Group cultivates its special corporate culture and will further develop in the interest of sustainability. With this sustainability report we provide a comprehensive presentation of our activities for the benefit of sustainable corporate management.

THE FUTURE IS OUR EVERYDAY LIFE

As a development partner of customers in the automotive industry, aerospace industry, plant engineering and construction industry or technical building equipment Witzenmann enables product solutions for increasingly complex challenges.



In addition to the purely technical demands placed on our products, sustainable efficiency as well as environmental protection and resource preservation are becoming increasingly more important. A prime example for this are the newly developed exhaust gas return pipes with integrated filter fabric. They solve a problem in modern exhaust gas treatment and enable effective and economically viable resource protection.

The exhaust gas return pipes 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 modern turbo engines, 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.

Contamination in the charge air

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.

Witzenmann has developed a special component with integrated high temperature resistant filter fabrics, which has now been successfully integrated 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.

Resource-conserving vehicle technology

- Oil and exhaust gas return pipes increase the efficiency of internal combustion engines
- decoupling elements compensate for structure-borne noise and reduce noise emissions
- The compensation of the movements of exhaust systems and turbochargers guarantee long, low-wear running times of the units

Efficient use of energy resources of the future

- Flexible line elements in off-shore wind parks and tidal power stations designed in special materials resist the corrosive salt in wind and water
- In solar thermal energy, solar connectors and expansion bellows absorb thermally induced movements within the system
- All components guarantee reliable operation and virtually eliminates expensive maintenance work

Safe and efficient building technology

- Flexible lines meet the highest safety requirements in sprinkler systems and gas pipelines
- Flat ducts for residential building ventilation provide a cosy indoor climate
- Corrugated hoses installed in stratified storage tanks and heat exchangers allow effective energy exchange

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 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 Witzenmann 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 Witzenmann 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 of personnel
- Financial independence
- Sustainability

Corporate strategy

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

Corporate guidelines

- Responsibility to our workforce and to society
- Independent family company
- Reliable business partner
- Economic long term thinking
- Knowledge and learning
- Equal opportunities and cultural variety

Leadership principles

- Preamble: Cooperative leadership
- Entrepreneurial activities
- Performance orientation
- Responsibility and promotion
- Integrity and cooperation
- Implementing changes
- Health-oriented management



THERE IS ALWAYS A CLEVER MIND BEHIND THIS

Extensive training –
targeted qualification

At an internationally leading company like Witzenmann it is important that all employees contribute their commitment, technical skills, and not least of all, their personality. Accordingly, we challenge and support our employees tailored to their individual needs and to their current as well as upcoming tasks. Sound training is the basis for this.

Interdisciplinary skills

All our trainees learn and work based on an extensive training schedule. In the course of their training they pass through each department, in which their profession is practiced. To additionally reinforce their interdisciplinary skills and corporate networking, the technical as well as commercial trainees also visit at least one department outside of their professional field. In parallel to their training, all trainees attend special courses and workshops that promote their social skills. During the WPS project days organized specially for trainees, they are introduced to the Witzenmann process system.

Witzenmann Academy

Our world of work is changing continuously. In order to meet the requirements at any time, the Witzenmann Academy also offers courses covering diverse topics even after the training. After all, professional qualification has an equally important tradition at Witzenmann as individual support.

Sustainable employee development

We fill vacancies and managerial positions preferably with employees from within our own company. After the training time, the trainees are normally taken on as permanent employees. Thanks to our global presence, we are able to offer a broad range of tasks in an international environment.

Knowledge and learning

Knowledge, learning and willingness to perform are our greatest assets. A key focus at Witzenmann is on intellectual flexibility, the willingness to change and relishing the opportunity to tackle current and future challenges with creative solutions. (Source: From the Guiding Corporate Principles of the Witzenmann Group)

"The management-training course was very helpful because it showed clearly which expectations will be required of me in my new role as a foreman at the company. Furthermore, since the group was mixed, I was able to understand how the shift supervisors deal with their task and which problems they have to contend with".

Rudolf Ackermann
Foreman in
Commercial Vehicles / Engines business
division

"Lifelong learning for me is not just an empty phrase, but it's my way of becoming professionally successful! Witzenmann supported me during my studies at the AKAD so that I can follow this intention. International projects and my daily work at the GmbH give me the opportunity to put my theoretical knowledge into practice."

Christine Maag
Commercial applications Senior
Analyst Information Technology



"The project management workshop and collaboration in interdisciplinary project groups helped me realize which optimization potentials project processing still has. I could then tackle this specifically. Through many practical exercises based on actual case studies the training was very application-oriented."

Daniel Rothfuß
Development engineer in the Technology
and innovation department

COMPLIANT



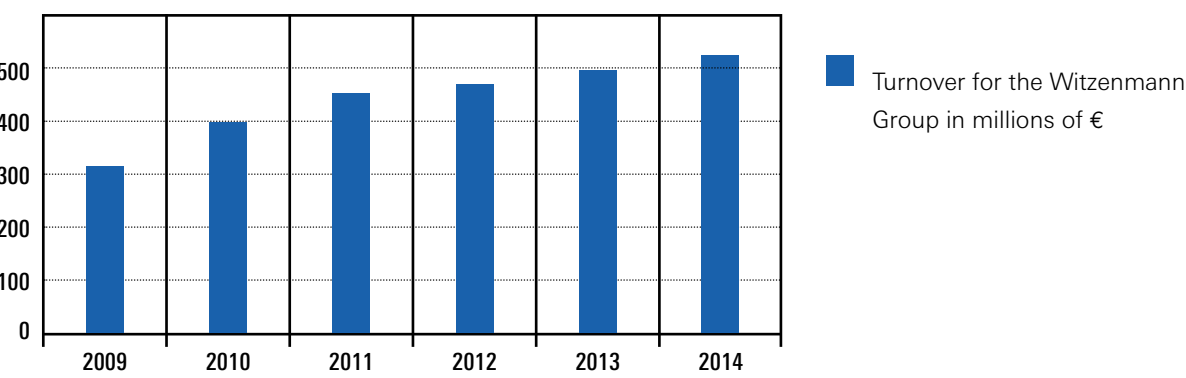
The “Acceptance of Benefits” guiding principles were published with the letter of the Executive Management on 25 October 2005 and are compulsory for all employees of the Witzenmann Group.

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.

FINANCIAL DATA

Turnover trend



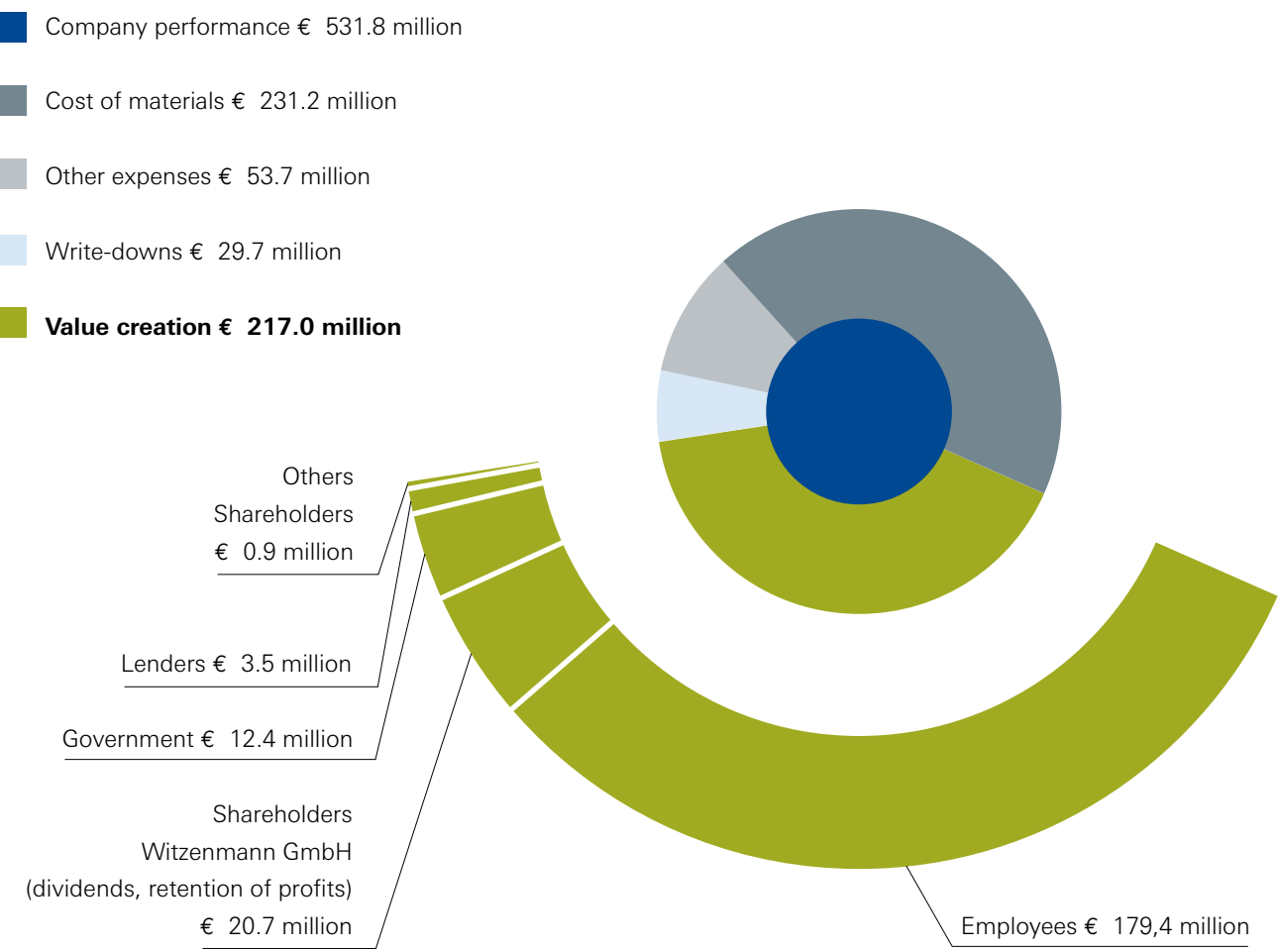
Financial data for the Witzenmann Group

Turnover		2013	2014
in total	Millions of €	497.1	525.4
in Germany	%	33.5	33.4
in Europe (excl. Germany)	%	33.1	31.4
in America	%	18.4	19.8
in Asia	%	14.7	15.1
in Africa	%	0.3	0.3

Turnover by sector		2013	2014
Automotive industry	%	53.9	56.7
Industry	%	37.7	35,8
Technical building equipment	%	7.2	6.5
Aerospace	%	1.2	1

Investment and equity		2013	2014
Investments	Millions of €	30.9	41.6
Write-downs	Millions of €	28.1	29.7
Equity ratio	%	51.7	52.9

Value creation of the Witzenmann Group 2014



Value creation

Value creation is produced from the company performance minus expenses, write-downs 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.

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. 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 Witzemann subsidiaries also make a contribution to their communities that goes far beyond their economic activities. In addition to lending its support to purely charitable projects, this also includes sponsorship measures. 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 Russia

- Financial assistance for pensioners with low income, families with sick/handicapped children
- Annual "German language week" in Ufa
- New Year's celebration for children
- Excursions for pupils and students
- Cooperation with the local university in Ufa

Witzemann Korea

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

Witzemann Benelux

- Collaboration with sheltered workshops and enterprises (garden maintenance, housekeeping)
- Donations to non-profit organisations and initiatives (children's cancer association, Child Focus and diabetics association)

Witzemann do Brazil

- Support of social projects
- "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)
- Regular support of the local cultural festival

Witzemann China

- Employees encouraged to participate in "No Driving Day" to cut down on CO₂ emissions
- Scholarships for high-achieving students from low-income families
- Donation to the Baobei Foundation (for orphans)

Witzemann Slovakia

- Occupational safety
- Promotion of sport and cultural activities of the employees
- Support of the Cykloclub (cycle racing team)

Witzemann Sverige

- Donation to UNICEF
- Support of a local sports club

Witzemann Opava Czech Republic

- Collaboration with the local vocational schools
- Traineeships: 5-10 students per year
- Financial support of school activities
- Collaboration with the local technical college
- Traineeships: 5-10 students per year
- Financial support of school activities, e.g. bicycle racing, motorcycle racing, tennis
- Financial support of the "Joy Fest" event for disabled people
- Financial support of the "Knizkovsky" choir
- Financial support of the extracurricular activities of children "Junak"

Witzemann USA

- Internship positions for college students
- Support of the Formula Student Team of the local university
- "Toy for Tots" Christmas presents for needy children



EMPLOYEES & SOCIAL POLICY

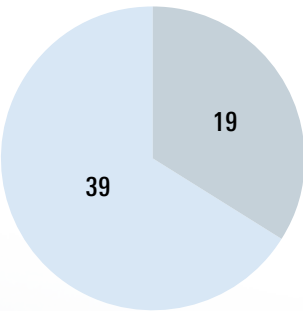
Workforce (as at 31.12.)

Witzenmann Group		2012	2013	2014
Total number of employees	People	3,485	3,617	3,756
in Germany	People	1,895	1,946	1,927
in Europe excl. Germany	People	1,029	1,026	1,103
in America/Asia	People	561	645	726

Witzenmann Academy				
Employees on the High Potential programme	People	11	12	11
External costs for training and professional development	€ K	574	571	526
Number of seminars	Number	285	332	233
Participants training and professional development seminars	Number	474	507	425

Witzenmann GmbH				
Total number of employees	People	1,638	1,680	1,659
Non-manual workers	People	634	658	657
Manual workers	People	934	940	925
Apprentices/trainees	People	70	82	77
Proportion of women	%	19.5	19.6	19.9
Proportion of men	%	80.5	80.4	80.1
Number of part-time employees	%	5.5	6.7	6.5
Severely disabled persons & persons regarded as such	People	68	67	71
Average age	In years	41.9	42.2	42
Average length of service	In years	12.3	12.5	13
Participants in employee activities	People	330	365	386

Health management at Witzenmann GmbH 2014

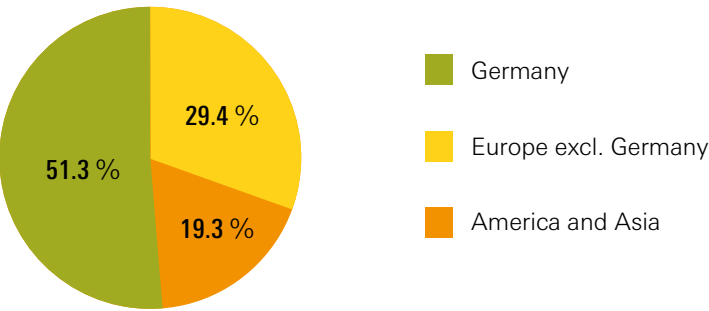


555 occupational health checks in 2014

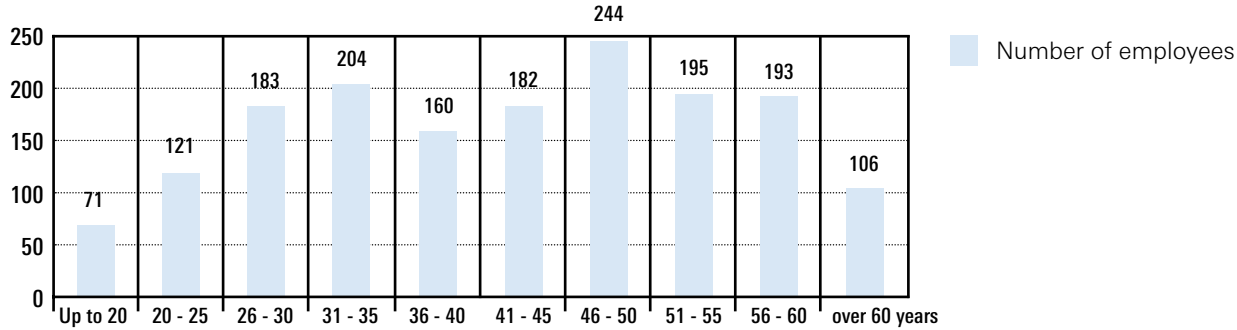
- Number of non-reportable accidents where employee was unable to work for fewer than 3 days
- Number of reportable accidents where employee was unable to work for more than 3 days (incl. accidents travelling to/from work)

Reportable accidents		2012	2013	2014
For every 1,000 employees	Number	25.6	26.9	23.4

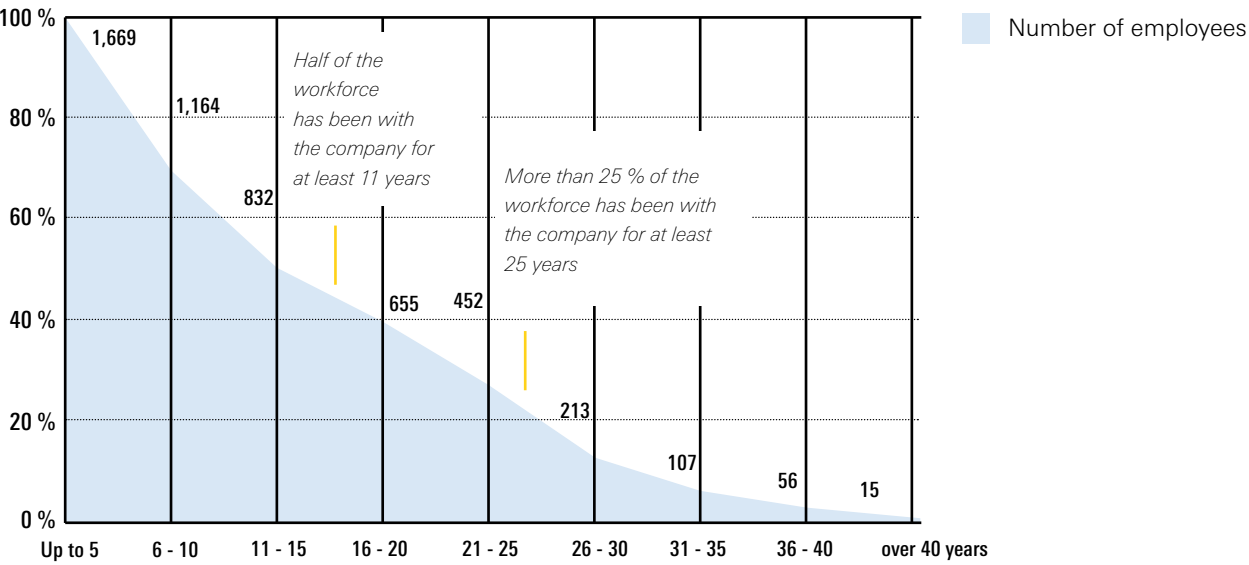
Witzenmann Group workforce 2014



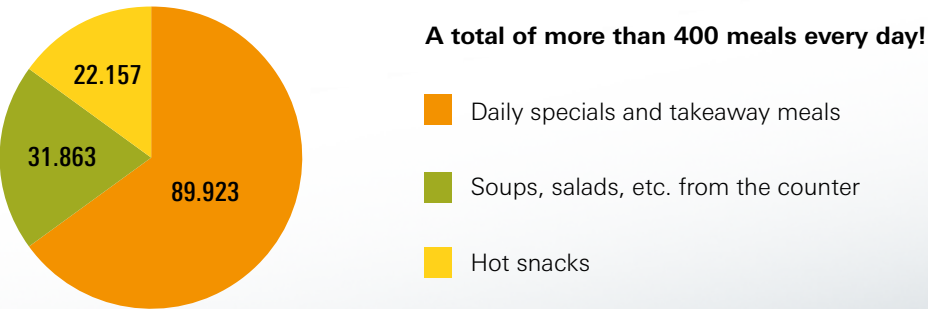
Age distribution of the workforce at Witzenmann GmbH 2014



Years of service of employees at Witzenmann GmbH 2014



Meals sold at Witzenmann GmbH 2014



KNOW-HOW-TRANSFER I

Production and engineering network within the group



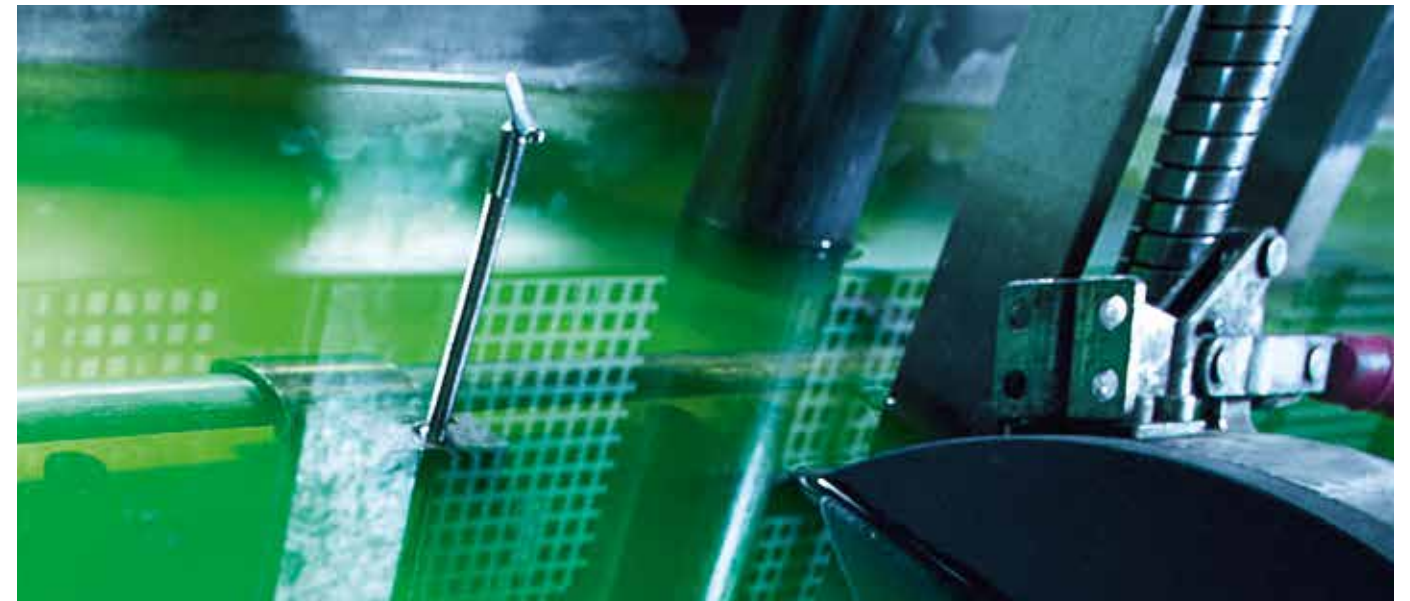
Witzenmann do Brasil

The Witzenmann Group has set itself ambitious goals. Within the next ten years our global presence is to be further secured through market leadership in America and Asia. By 2025, Witzenmann wants to exceed the sales barrier of one billion Euros. One factor for implementing the objective is the gradual expansion of manufacturing capacities for the industrial division (id). In 2013, the existing assembly plant for expansion joints of Witzenmann Russia was expanded at the site in Ufa to include local bellows production. The expansion joint production at the Russian subsidiary serves as a blueprint for further sites within the group.

Since September 2014, expansion joints have also been produced at Witzenmann do Brasil. As in the case of Witzenmann Russia, the new expansion joint production operation was built and set up in Brazil in accordance with the modern industry standard. Here, a punching process is used to manufacture the bellows in sizes up to DN 800. It is now possible to process orders locally – from the design to production and final inspection.

Intensive employee qualification

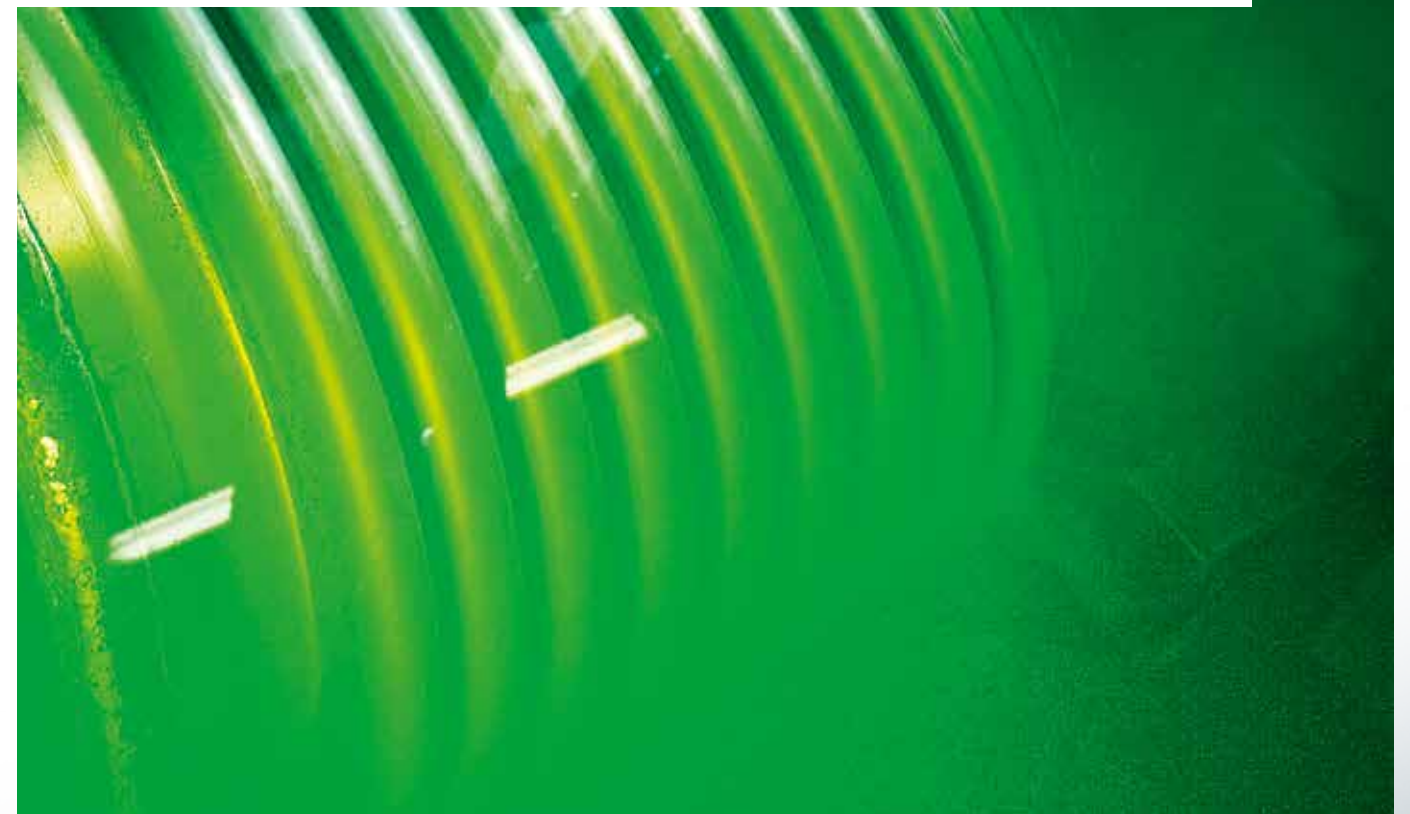
In addition to substantial investments in buildings and machines, significant expenses were also incurred in order to train the employees from the respective countries. Thus, at the headquarters in Pforzheim over a period of several weeks the Brazilian production teams as well as their Russian colleagues previously, were involved in the processes at the new plants for manufacturing expansion joints. Niels Hennig and Daniel Schöninger provided most of the coordination for qualifying the production employees. Likewise, the future sales colleagues of the subsidiaries were trained in very extensive training programs in the industrial business division of the headquarters. The spectrum covered the entire range of Witzenmann Group products for the industrial business segment. The design of expansion joints as well as their offer and order processing constituted the main focus here.



Witzenmann Russia

The aim: local production for local markets.

In Russia as well as currently in Brazil or in the sites still to come, Witzenmann is pursuing the aim of serving the local markets in the plant engineering and construction industry with products and engineering services. In the medium term, workplaces will thus be created locally and the logistical costs significantly reduced. The latter naturally is reflected as a positive contribution for the life cycle assessment of the company.



INSIGHTS INTO THE PRACTICE OF THE GROUP

Niels Hennig and Daniel Schöninger coordinated the the establishment of the expansion joints production plant for the Witzemann Group in Witzemann Russia and later at Witzemann do Brazil.

Their experiences provide interesting insights into the internationally positioned Witzemann Group and the significance of sustainability in daily practice.

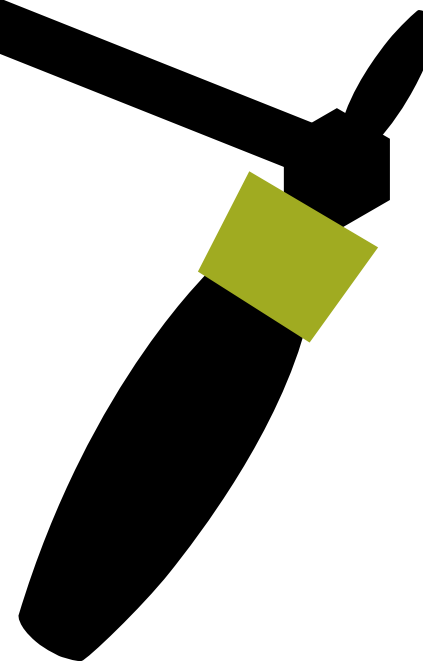


TEAMWORK

What definitely deserves mentioning: Nobody is able to tackle such a project alone. This is always backed by a team. We are the ones who provide support during the establishment of a new site in all phases and therefore we are the first to be noticed. But what the colleagues in the materials management do at the start, when it comes down to purchasing the machines and site equipment, is fundamental. From a certain time on, their job is done and they do not show up anymore.

INTERNATIONALIZATION

The subsidiaries of the Witzemann Group work very independently in their markets. The fabrication layouts, however, must be developed as uniformly as possible group-wide. This makes it possible to achieve the same quality and safety standards worldwide. Moreover, the bundling of purchase quantities improves the position in relation to the suppliers, such as the production lines for example. In the operative business, the subsidiaries are essentially given a free hand.



LEARNING FROM EACH OTHER

The staff training courses are an essential element during the establishment of a new site. The training courses mostly take place at the headquarters in Pforzheim, but sometimes they also take place at a Witzemann subsidiary at home or abroad. This depends on the type of technology implemented. We have noticed here that both sides – both those conducting the training and those training – benefit. The new employees scrutinize many things entirely without bias, which are usually set. This is often inspiring for experienced employees.

THE "HUMAN FACTOR"

The exchange of employees group-wide, be it in training courses, at trade fairs or similar occasions is extremely important. There are lots of opportunities here for personal questions. The feeling of solidarity grows and helps in everyday life.

GLOBAL FOOTPRINT

In the course of internationalisation, the headquarters in Pforzheim is increasingly taking over coordinated tasks. The customer-oriented competence network and the interaction with the subsidiaries is decisive, however. The qualities described above such as initial training and further training, induction and market responsibility of the individual subsidiaries etc. are all contributing factors, which account for the global footprint of Witzemann.



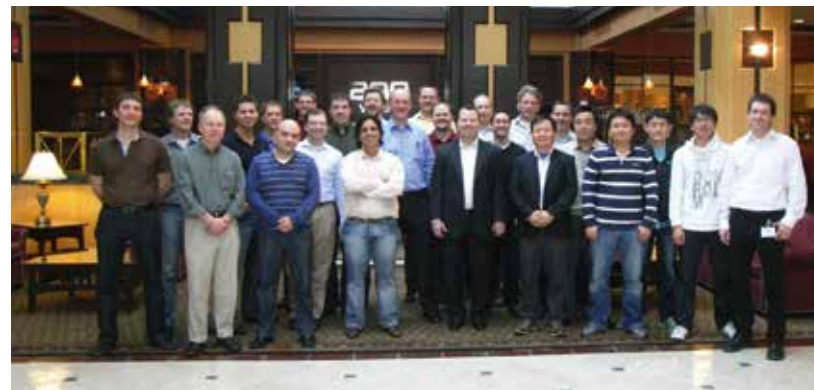
COMPETENT NETWORK

With a wide range of products the Witzenmann Group sees itself as a worldwide development partner of customers in the widest range of sectors.

An essential element in this collaboration is the technical advice by our sales and application engineers on site. The intensive cooperation between the individual subsidiaries as well as with the headquarters creates a close-knit competence network. This is also the case in terms of optimization of the internal requirements.

Automotive Engineering Forum November 2014

The Automotive Engineering Forums are distinctly more than an exchange of experience. Since 2004, the fz experts have been meeting at workshops and defining future development priorities in the international environment. Topics discussed included, for example, backgrounds, trends and drivers in the field of exhaust gas recirculation as well as methods for service life preliminary design and characterisation of the dynamic/acoustic behaviour of decoupling elements in exhaust systems.



Automotive Engineering Forum
Witzenmann USA

Maintenance Forum 2014

Hydraulic bellows production is the heart of automotive production at the Witzenmann Group. Regular maintenance and servicing of the hydraulic components such as pumps and pressure intensifiers protect not only against unexpected production loss, but also prolongs their service life and reduce costs for spare parts. In 2014, the aforementioned points were the main focus of the forum. Furthermore, the components of the laser cutting systems and process control were practiced on the simultaneous bellows press. The forum has been held since 2006, and since 2008 has been organized by the Service International department in collaboration with the Personnel department.



In 2014, the Maintenance Forum took place in China.
The hosts greeted participants from the subsidiaries in Brazil, China, Germany, India, Korea, Spain and the USA.



5S Award for Witzenmann USA

In September 2014, a 5S Award could be presented to our subsidiary in the USA. The the production of components for the commercial vehicles and engines division was awarded for ATD dampers (Zone 1) at our subsidiary in Warren. V.L. Tomas Aman (WPS Expert), Anthony Vitale (Shift Supervisor), Marty Tallmann (Production), Wayne Rowlett (Maintenance), Jody Teichow (Shift Supervisor), Kathy Garner (Production), Belva Sollars (Production), Marvin Pisarczyk (Managing Director WI-USA), John Walker (Production Manager WI-USA/ plant Warren).



The map shows the
Witzenmann subsidiaries entrusted with the production of automotive components.

Witzenmann Process System (WPS)

In 2010, the internal production system was initiated based on the model of the Toyota system under the name of Witzenmann Production System (WPS) and gradually implemented in the individual production departments. The aim of the WPS is to generate as little waste as possible in our production and to firmly establish systematic, continuous improvement within the company. In 2014, the extension of the production system with the Witzenmann process system was combined with the involvement of the commercial departments. At the same time, the roll-out to the subsidiaries was pushed forward. After the plants in the Czech Republic and in Spain, in 2014 it was time for the USA subsidiary to be integrated into the WPS activities. For this purpose, colleagues from the subsidiaries in Spain and the USA were trained in Pforzheim as WPS experts at a training course held in English. This helps to standardize the production standard at a high level, increases productivity throughout the group and also promotes international cooperation and mutual exchange among the Witzenmann subsidiaries.

Local Innovation Champions

Innovation Management has continuously gained in importance during the past few years and has established itself as an integral part in the automotive components business division. One major objective is to develop innovations at product and process level. For this purpose, search fields in vehicle technology are being defined and evaluated and subsequently processed in terms of content. The aim is to derive innovative approaches, formulate tasks as well as to launch projects. The integration of the subsidiaries is an essential element of this initiative. The first step was the appointment of the "Local Champions Innovation" as responsible contact partners and competent moderators of the group-wide innovation process.

CROSS CULTURE



INTERNATIONAL CORPORATE CULTURE

Working in a global company is not without its challenges

Witzenmann is a company with a world-wide presence. We only have to look at the figures from the 2014 company report to establish the increasing importance of international subsidiaries, with 66 % of company turnover generated in other countries. Almost 50 % of Witzenmann Group employees work at our international subsidiaries, with Witzenmann GmbH in Pforzheim

"Culture is a dynamic process of solving human problems."

Fons Trompenaars
Dutch cultural scientist

acting as the centre of competence and the control hub for the entire Group. The effective and profitable cooperation within the Group is not only based on technological exchanges and knowledge transfer, but also on understanding and respecting the various cultural and social values and mentalities. Even our customers are international. As part of the basic training course, Nicolas Renard (fz-as) discusses "Cross cultural management" and imparts his valuable insights and experiences, and it doesn't even involve leaving the country. Everyone

in Germany is aware of the cultural differences between the various regions, so the same principle must apply to other countries, where cultural differences will be even more pronounced. Theories on intercultural exchange work on the basis that these cultural differences have a significant impact on behaviour within the company with regard to organisation, leadership and methods of dealing with these differences, which ultimately impacts the company's economic success. Cultural differences are simply a fact, evolving over time to shape everyone's personal experiences. Anyone coming into contact with other cultures must be able to understand and accept that cultural communities have their own different values, preferences, customs and rituals.

Cultural differences can cause anything from misunderstandings right through to conflicts. In some cultures, for example, individuality is extremely important, whereas a focus on the community is more important than individuals in Asian cultures. In certain countries and regions, tasks are processed in a highly analytical, meticulous and pragmatic manner, whereas others may adopt a more idealistic approach. Companies operating on an international or global scale have

to be prepared to adjust their approach not only for internal cooperations, but also when contacting customers or other business partners. The decentralised, international structure of the Witzenmann Group has proven advantageous in this respect, as the 23 subsidiaries act as local representatives within their respective markets. This helps to make sure we're always on the same wavelength as our customers. The challenge remains, however, of "translating" these cultural quirks and customs for colleagues based at our headquarters or sister company to make sure that they are always understood. Both for internal international cooperations and when contacting overseas business partners, it is helpful to be aware of cultural differences and their practical relevance to everyday business operations.

By tackling this subject head on, we can ensure efficient, trouble-free collaboration with our colleagues, customers and business partners from other cultures. And this is precisely the awareness that Nicolas Renard seeks to promote in his mini-seminars.



“Human culture is the result of hundreds of thousands of years of evolution. During most of this time, competition between bands of gatherer-hunters was a powerful evolutionary pressure.”

Geert Hofstede
Dutch cultural scientist

In communities which have various ways of dealing with personal contact, it is important to adopt a more global approach and a network of relationships between those involved. Western cultures in Europe and North America prefer to work sequentially, taking each step at a time, whereas Asian cultures favour a more holistic approach and expect this from their business partners. In some countries, having a clearly allocated status (based on background, position or title, for example) is extremely important, while other cultures are more likely to define status by the tasks involved in a particular job.



Cross Culture
Inspiring discussions on an average day at Witzenmann

- Power distance**
To what extent are imbalances between different hierarchical levels accepted?
 - Individualism vs. collectivism**
How much do individuals focus on themselves and close family members?
 - Masculinity vs. femininity**
How strictly is the traditional distribution of roles observed?
 - Risk avoidance**
How important is it to observe principles within a particular culture?
 - Long-term vs. short-term focus**
How important are a sense of tradition, loyalty and community to a culture?
- Cultural researcher Geert Hofstede works with sets of values that differ widely from one culture to the next.



STRIKING THE RIGHT BALANCE

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

Objective: Reduce energy losses

Headquarters Building 6

- Measure: Thermal insulation of hot water pipelines
- Implementation: Pipelines were insulated.
- Current state: 100 % implemented

Objective: Reduce energy consumption

(at least 50 % with regard to lights)

Headquarters Building 2, 4, Remchingen

- Measure: Renewal of the lighting
- Implementation: LED lighting or controlled emergency lighting, needs-based lighting of the stairwells, Renewal of the exterior lighting with LED.

Objective: Reduced noise

Headquarters Building 4

- Measure: Noise prevention arrangements environment stripwounding
- Implementation: The noise prevention measure could not be realised because no adequate solution was found. A housing is not feasible. Measure will not be pursued any further.
- Measure: Housing of BFU and sound insulation for hydraulics
- Implementation: The measures were implemented as planned. Measurement after implementing the measures: 72.8 dB(A)

Intelligent solution at Witzenmann-Speck

Changes in different production-related parameters caused three additional, temporary occurring peak loads that could not be covered with the existing transformer station. A computer-aided energy management system is able to shut down defined consumers production-controlled thereby preventing overloading of the transformer.



Klaus Althuon
Energiebeauftragter
der Witzenmann GmbH

Appointment as Energy Commissioner

Energy efficiency plays an increasingly important role in our company. This protects the climate, preserves resources and strengthens competitive ability. In order to advise the management in the performance of the tasks concerning energy efficiency and to offer support during the implementation, Mr Klaus Althuon was appointed as Energy Commissioner of the Witzenmann GmbH with effect from 01.09.2015.

The commissioner performs a systematic analysis of the energy consumption as part of an energy management approach in order to identify energy efficiency potential for reducing costs.

Real-world figures

Exterior lighting

Remchingen site

Exchange of HQL luminaires for LED luminaires

Turnover	Previously	New
Energy consumption	2 kW	0.678 kW
Ø Service life/Year	3,650	3,650
Energy consumption/ Year	7,300 kWh	2,475 kWh
Energy costs/ Year (15Cent/kWh)	1,095.00 €	371.25 €

Exchange of double-illuminant luminaires
2 x 58 W + KVG for LED luminaires
1 x 60 W + presence control

Turnover	Previously	New
Energy consumption	3.834 kW	1.620 kW
Ø Service life/Year	4,000 hours	2,000 hours
Energy consumption/ Year	15,336 kWh	3,240 kWh
Energy costs/ Year (15Cent/kWh)	2,300.00 €	486.00 €

Exterior lighting

The Brötzingen plant

Exchange of HQL luminaires for LED luminaires

Turnover	Previously	New
Energy consumption	6.2 kW	0.7 kW
Ø Service life/Year	3,650	3,650
Energy consumption/ Year	22,630 kWh	3,207 kWh
Energy costs/ Year (15Cent/kWh)	3,395.00 €	481.05 €

ENVIRON- MENTAL POLICY

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. We continuously strive to avoid or reduce to a minimum damage and stress on the environment through the production and use of our products. We comply with all relevant legal standards and other requirements as a matter of course. The following environmental guidelines apply to the implementation of the environmental policy in all divisions of the company:

- We consider the conservation of natural resources for future generations to be an important part of our social responsibility.
- We regard environmental protection as an important component of corporate governance and formulate concrete goals and rules of conduct for its implementation.
- We recognise the importance of each employee in the implementation of environmental protection measures and in providing training opportunities and decent working conditions.
- We identify and assess the environmental impacts of our business processes through continuous analysis. New processes and materials were examined for their environmental compatibility before use.
- We are committed to continually improving our environmental performance and take all necessary measures to prevent, eliminate or at least reduce our environmental impacts to a minimum.
- We publish a regular sustainability report to keep our customers, the general public and the relevant authorities informed about our social and ecological engagement.

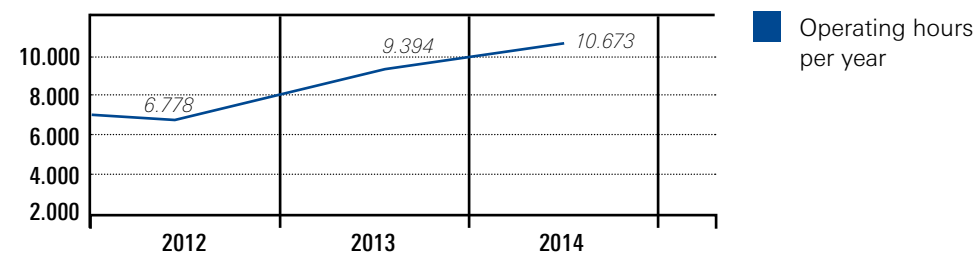
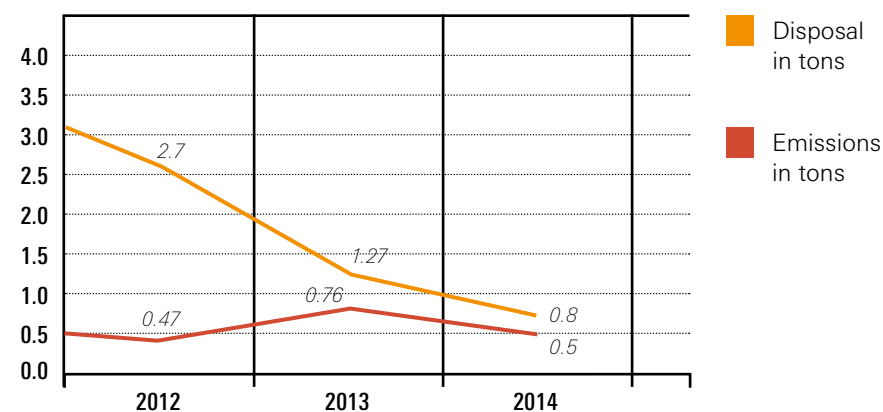
Since 1997, we have regularly published an environmental report in which we document our environmental protection system, how we use our resources and other important key data relating to the environment. You will find a presentation of the current data on page 42.

Waste management

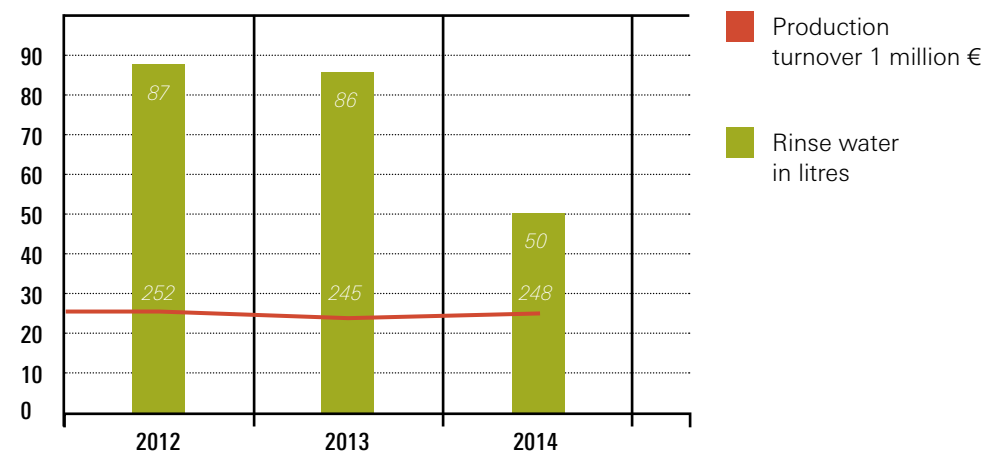
For many years, we have been achieving a high recycling rate. Only 0.8 % of our waste requires disposal.

99.2 % Recycling rate

HCl solvent balance



Rinse water



CLIMATE ASSESSMENT

CliCCC – Climate & Carbon Calculator for Companies



Prof. Dr. Mario Schmidt
Pforzheim University
INEC (Institute for Industrial Ecology)
Ecological Company Management /
Operations Research



Graduate Economist Clemens Raqué
Pforzheim University
INEC (Institute for Industrial Ecology)

Since 2010, Witzenmann GmbH has measured its carbon footprint annually (the greenhouse gas emissions for the headquarters) for its Pforzheim and Remchingen sites. For this purpose, the Institute for Industrial Ecology (INEC) of Pforzheim University headed by Prof. Dr. Mario Schmidt carried out a so-called CliCCC analysis (Climate & Carbon Calculator for Companies).

This accounting of the climatically harmful CO₂ emissions not only takes into account the greenhouse gases emitted directly by the company, but 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.

Overview of results

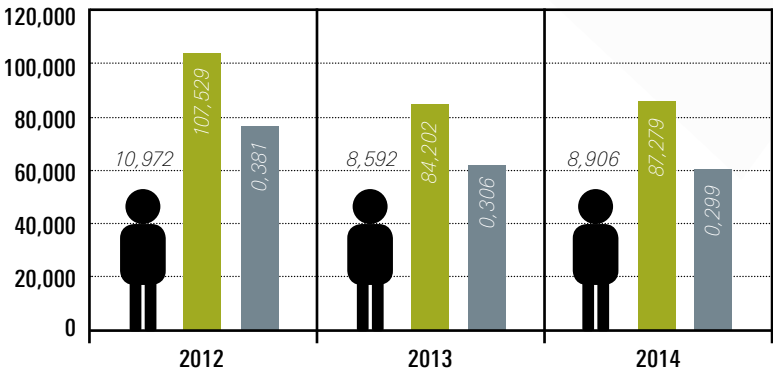
The purpose of this overview of results is to enable a quick insight. For this purpose, the three indicators

- recognised total emissions,
- cumulative emission intensity (CEI) and
- population equivalent are selected.

The recognised total emissions reveal the sum of all emissions from the individual categories. The CEI is the ratio of recognised total emissions to company turnover. The sales of the comparison years is adjusted for price in order to represent a timeline. The current CEI can be passed on to customers. To put the rather abstract recognised total emissions indicator in concrete terms, the population equivalent is also indicated and is the ratio of the recognised total emissions to the annual pro capita emissions of Germany.

Turnover of the Witzenmann GmbH in Millions of Euros

2012	2013	2014
283	275	292



- Recognised total emissions in t CO₂ equivalent
- Cumulative emission intensity (CEI) in kg CO₂ equivalent/€₂₀₁₄
- inhabitants

The results in detail

From the composition of the results for the 2014 reporting year (p. 37), 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 31,842 t CO₂ equivalent. In this case, it is wise to offer incentives to suppliers in this goods category to encourage them to disclose their specific emissions. The same applies to the goods categories comprising metal products and foundry products, which has 19,879 and 10,125 t CO₂ equivalent and is therefore also above the total emissions from scope 2. For future investments in fixed assets it is expedient to also take the energy consumption as a decision criterion into account.

Within scope 2, electricity dominates with 6,695 t CO₂ equivalent. Here, we check to see whether emissions can be reduced in this area by using an electricity product with lower emissions. Such a measure is faster and easier to implement than measures in scope 3. Scope 1 with 517 t CO₂ equivalent is negligible. Through the direct connection to the company, however, there may be potential here to implement measures to reduce emissions. In accordance with the ranking, we can first check to see whether emissions can be reduced when using natural gas and heating oil.

Improvements in scope 1 and 2, increase in scope 3

Compared to the results from 2013, improvements have been made with the CEI as well as in scope 1 and 2. The improvements amount to 2 % in the CEI, 44 % in scope 1 and 6 % in scope 2. The recognised total emissions and emissions from scope 3, however, have increased by 4 % and 5 %. Compared to the results from 2012, significant improvements have

Source:
Documentation: CliCCC practical test at the Witzenmann GmbH, year under review 2014, Pforzheim University, Institute for Industrial Ecology

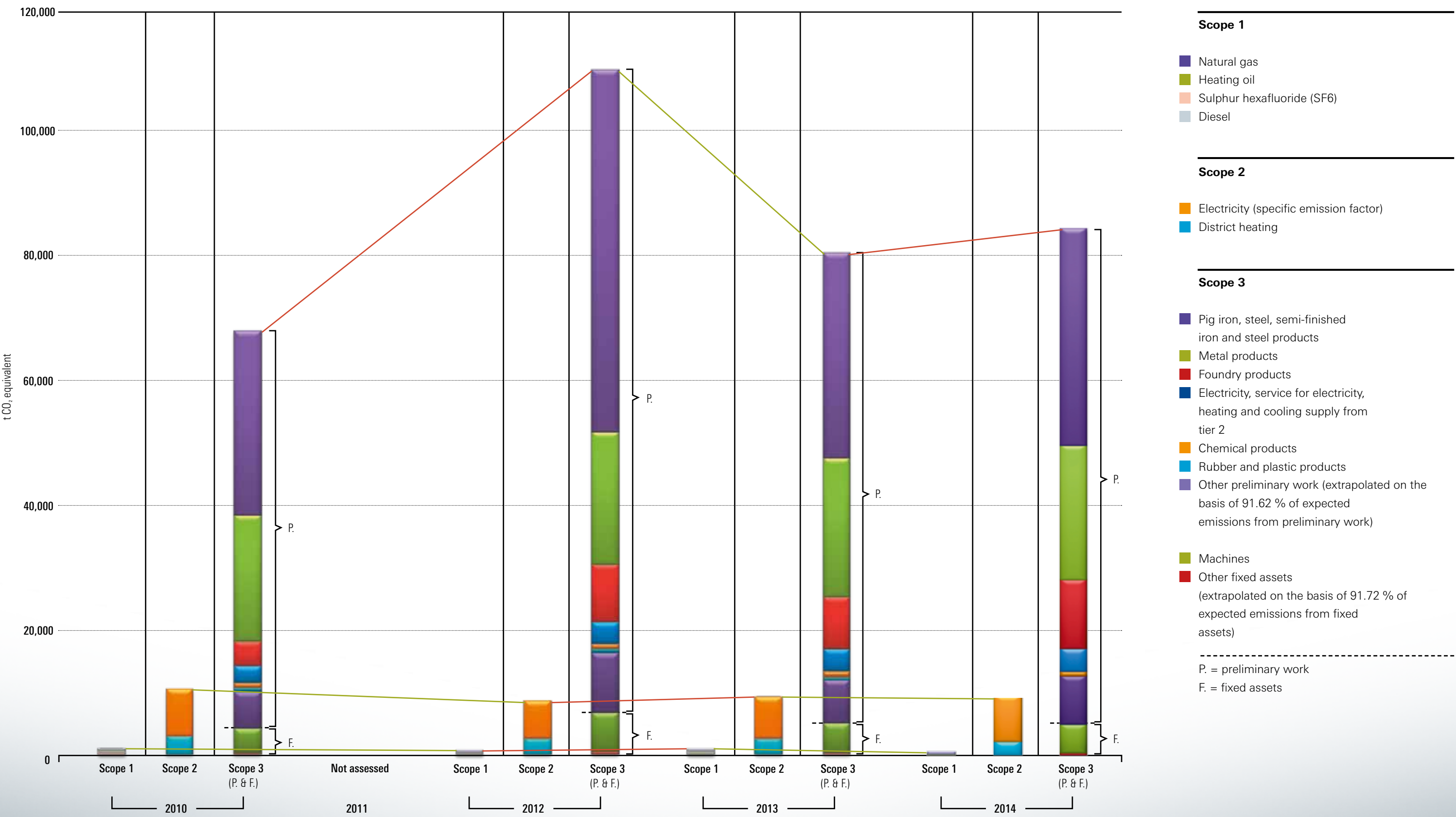
been made with the recognised total emissions, CEI as well as with the emissions from scope 1 and 3. These improvements amount to 19 % in the recognised total emissions, 22 % in the CEI, 33 % in scope 1 and 20 % in scope 3. With an increase of 1 %, the emissions from scope 2 have hardly increased at all. Compared to the results from 2010, significant improvements by 49 % and 16 % have been made in scope 1 and 2. Increases were noticed, however, in the recognised total emissions, the CEI and in scope 3.

Reduction of material intensity

These amount to 18 % in the recognised total emissions, 5 % in the CEI and 26 % in scope 3. The increase of the CEI shows that the recognised total emissions have increased more sharply than the turnover. To counteract this development, in addition to the recommendations already mentioned, we recommend checking whether the material intensity of the production processes can be reduced.

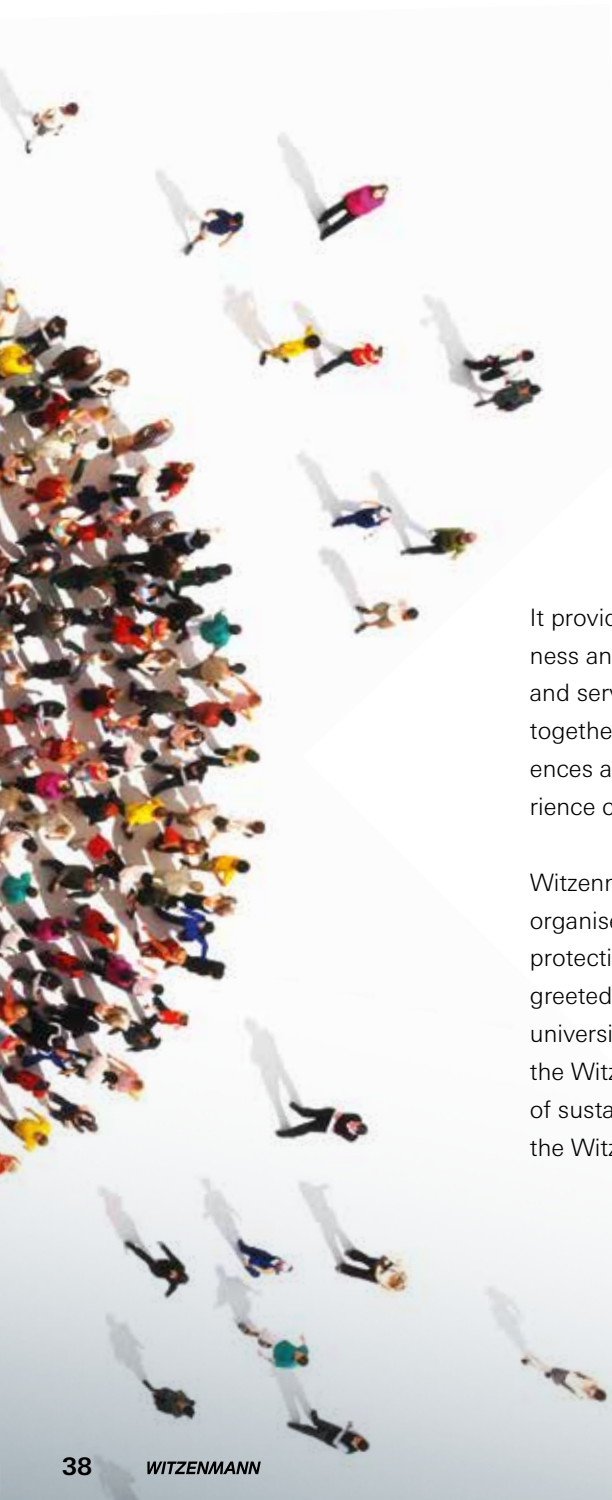
Source: Documentation: CliCCC practical test at the Witzenmann GmbH, year under review 2014 Pforzheim University, INEC (Institute for Industrial Ecology)

CLICCC – COMPOSITION OF THE RESULTS



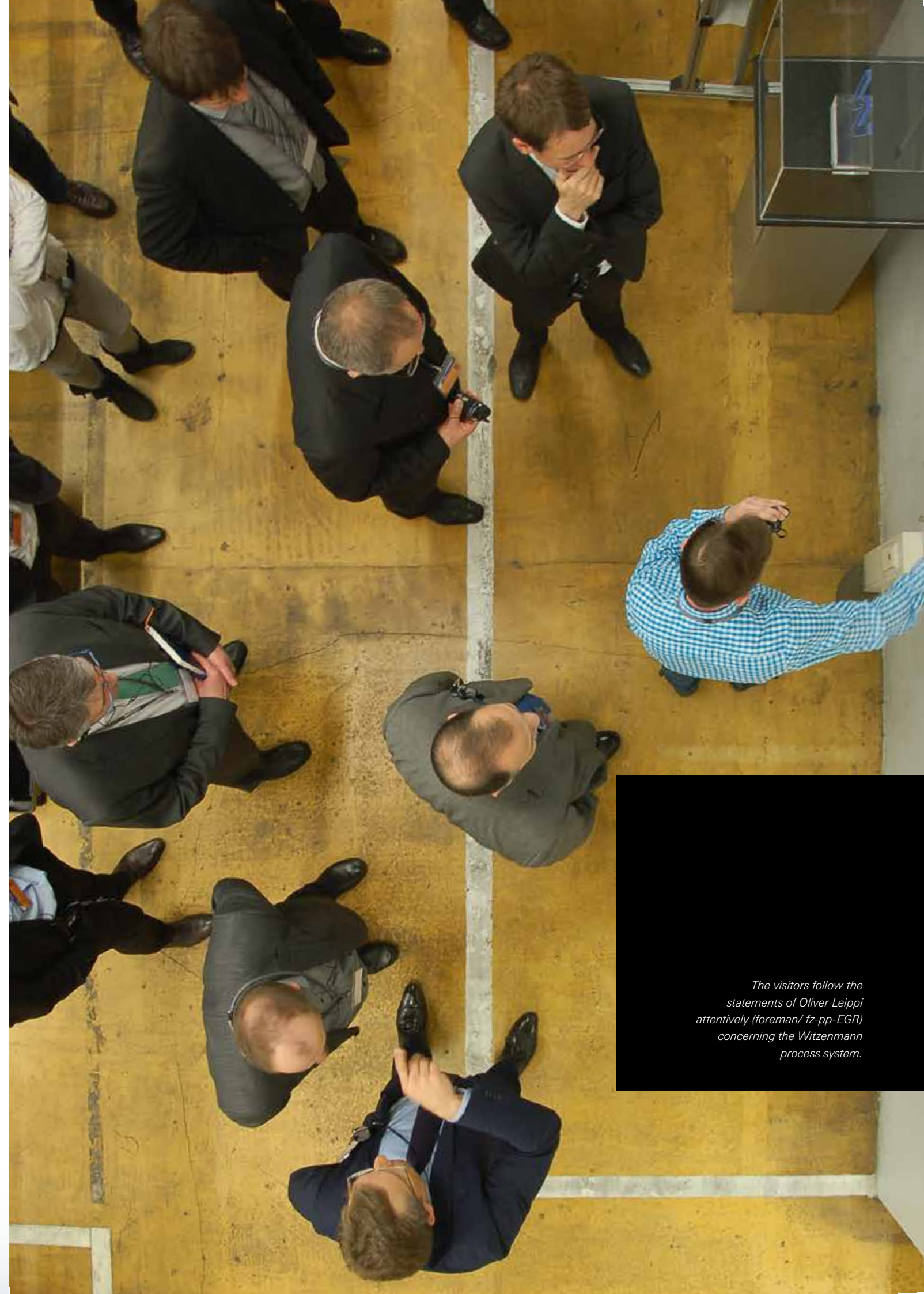
POOLING EXPERTISE

The Resource Efficiency (NeRes) network has set itself the task of pooling the expertise and experience from resource-conserving production, products and management.



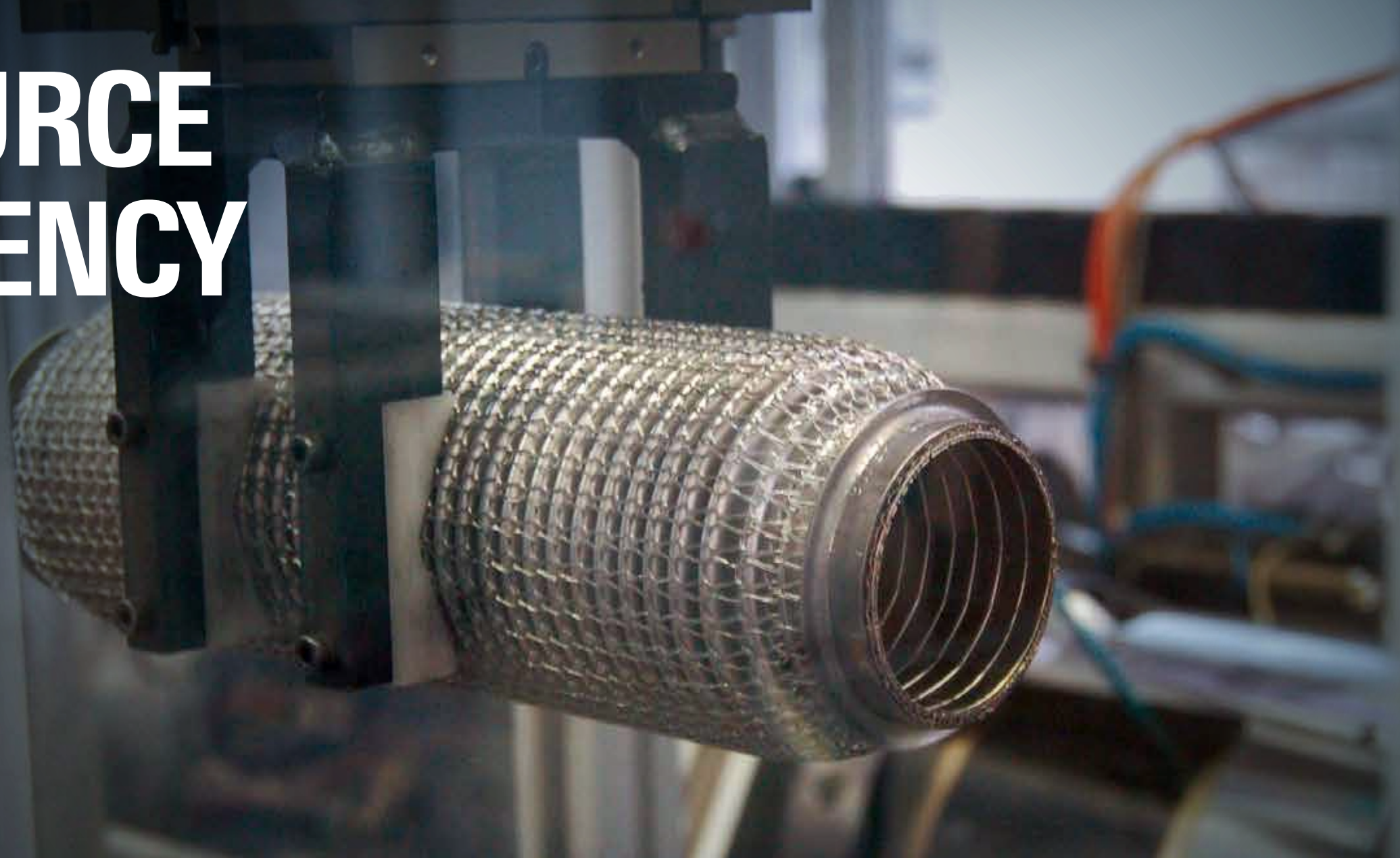
It provides mutual information and enables the networking of diverse players from business and politics. The aim is to promote a more efficient resource use of products and services in production, trade and consumption. For this purpose, the network brings together players from politics, companies, associations, chambers, trade unions, sciences and institutions of the federation and states and initiates the exchange of experience concerning promising approaches of resource efficiency.

Witzenmann has been actively engaged in the network since 2014, and in April 2014, organised the 6th network meeting "Initiative for resource efficiency and climate protection". At the headquarters in Pforzheim the Managing Director, Philip Paschen, greeted the "the networkers" from the other companies, trade associations, politics and universities. Apart from a brief introduction of the company, the agenda included the Witzenmann Process System (WPS), the considerations and handling of the issue of sustainability as well as a practical example for increasing resource efficiency from the Witzenmann production.



The visitors follow the statements of Oliver Leippi attentively (foreman/ fz-pp-EGR) concerning the Witzenmann process system.

RESOURCE EFFICIENCY



Less is more

Resource efficiency is an approach for reconciling economic and environmental objectives and is a key strategy for sustainable development, particularly of industrial companies. Efficient handling of raw materials is gaining increasingly in importance in companies. Energy and resource efficient production constitutes a competitive advantage and eases the impact on the environment.

Excellent example of resource efficiency

In 2013, the Ministry for the Environment in Baden-Württemberg and the Central Associations of the local economy formed an alliance for increasing resource efficiency. In the project "100 companies for resource efficiency", companies from Baden-Württemberg present tangible projects from their everyday production. They should serve as an example to encourage other companies and traders to handle raw materials efficiently. Witzemann has applied with the patented helix welding process.

Project: Helix welding

Exhaust gas decoupling elements are used for vibration decoupling and motion compensation in vehicles. They normally consist of the following components:

- metal bellows as a gas-tight, flexible element,
- surrounding braiding or knit braiding for traction limitation,
- a stripwound hose for flow routing within.

To affix the stripwound hose, this is radially reshaped on its ends with the ends of the metal bellows. Hoses with an Agraff profile have only been suitable for this packaging until now, since this ensures that this profile does not unhook during the reshaping of the end.

Various winding profiles

In principle, stripwound hoses could also be used with a hooked profile. These have considerably fewer materials, but would unhook during radial reshaping. There are solutions on the market, whereby the stripwound hoses with a hooked profile are welded to the end sleeves. These end sleeves use a lot of material and are correspondingly expensive and heavy.

During the helix welding process, the windings of the stripwound hoses with a hooked profile are welded together at its beginning and end. By welding the windings, the ends are affixed so that the radial formability can be carried out without any risk of unhooking.

Material saving: > 40 tons/year

Due to the high serial quantities the material saving adds up to 41.6 t annually for the selected product.



ENVIRONMENT

Environmental report

Witzenmann GmbH		2012	2013	2014
Procurement turnover	Millions of €	95.6	94.8	98.2
Plates/tubes/wire	%	17	17	15
Parts/components	%	74	75	75
Energy/auxiliary materials	%	9	8	10
Waste management				
Total volume of waste	t	2,392	2,262	2,514
Recycling rate	%	99.1	99.2	99.2
Water consumption	1,000 cbm	25.4	24.7	22.6
HCI solvent balance				
Disposal	t	2.7	1.27	0.79
Emissions	t	0.47	0.76	0.54
Space utilisation	%	152	148	148
Energy				
Electricity draw	MWh	16,425	16,275	16,450
Electricity draw/1 million € of turnover	MWh / €	58	58.9	56.3
Building heating				
District heating	MWh	9,261	9,456	7,240
Natural gas	MWh	1,954	1,968	1,856
Energy requirement/1000 employees	MWh	7.1	7.3	5.4

Environmentally relevant incidents

Date	Incident	Action
23. January 2014	Oil in the courtyard before receipt of goods due to hose burst on forklift truck.	Binded with 2 sacks of oil binding agent.
07. July 2014	Oil patch in the courtyard before building 2.	Binded with 1 sack of oil binding agent.
August 2014	Oil separator Remchingen interrupted briefly due to initiated floor cleaner	Emptying and filling, measures against recurrence: Notice signs and raising awareness of staff.
19. September 2015	Oil patch and oil stains in the entire courtyard area.	Binded with 3 sacks of oil binding agent.
07. October 2014	Oil patch in the courtyard between building 2 and building 4. Polluter: Forwarding agent	Binded with 3 sacks of oil binding agent.
22. October 2014	Oil stain in the courtyard before building 2. No polluter identifiable	Binded with 0.5 sacks of oil binding agent.

CONTACT



Philip Paschen

As Managing Director, Philip Paschen is responsible for the “Business process management, logistics and sustainability (GFgIn)” division. His areas of responsibility include, among other things, industrial engineering (including productivity management, lean production, lean administration and six sigma), plant design, building management, logistics, sustainability and compliance. Furthermore, he is responsible for the Commercial Vehicles / Engines business division



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

Publisher:
Executive Management at Witzenmann GmbH, P.O.Box 101280, 75112 Pforzheim, Germany

Author of the environmental report:
René Pflittner, Environmental Protection Officer

Editor:
Marketing Witzenmann GmbH, Phone: +49 7231 581-208

Design:
Schindler Parent Industry GmbH, Eutinger Str. 2, 75175 Pforzheim, Germany