

Making optimal use of resources



Making optimal use of resources

The E.G.O.-Group acts sustainably in order to achieve lasting success. Our innovative, high-quality products and services are therefore in harmony with the interests of human beings, nature, the environment and society. We strongly believe that good and therefore resource-friendly sustainability management is a basic prerequisite for maintaining our position as one of the leading suppliers to the household appliance industry in the future.

”

MAKING OPTIMAL USE OF RESOURCES
MEANS FOR US,

... HANDLING RESOURCES
IN A RESPONSIBLE WAY.

... MAKING BETTER
USE OF DWINDLING
RESOURCES AND ACHIEVING
MORE WITH
FEWER RESOURCES.

... MANAGING A
GROWING DEMAND
FOR RESOURCES.

“

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Foreword

This Sustainability Report assesses the economic, ecological and social impact of our corporate activities in the years 2016 and 2017 – based on the 3-pillar model of Corporate Social Responsibility (CSR) – and presents some interesting aspects and projects. But our understanding of sustainability goes further. As a company, we also take responsibility for society as a whole. We have therefore devoted a separate section to commitment to society.

All of the topic areas have one thing in common: resources are scarce and/or cost money – whether this relates to trained, qualified employees, raw materials, manufacturing resources, time or energy. Those companies that are able to renew themselves continuously and sustainably and treat resources responsibly have the best chances of long-term survival in the rapidly changing business world.

We have therefore drawn up this Sustainability Report under the motto “making optimal use of resources”. Not in the narrow sense of project management, but in a company-wide context. In order to be successful in the long term, every company must optimize its management of internal and external resources. In the sections that follow, we provide you with examples of how we have reconciled this with the interests of people, nature, the environment and society in the reporting period.

Perhaps you will see E.G.O. in a new light as a result. In any case, we hope that you gain plenty of new insights into our varied activities and that you will find the report a stimulating read!

DR. JOHANNES HAUPT
CEO

DR. KARLHEINZ HÖRSTING
COO

BENNO RUDOLF
CFO

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Those companies that are able to renew themselves continuously and sustainably and treat resources responsibly have the best chances of long-term survival in the rapidly changing business world.

“

Dr. Johannes Haupt



6,000

employees

18

locations

16

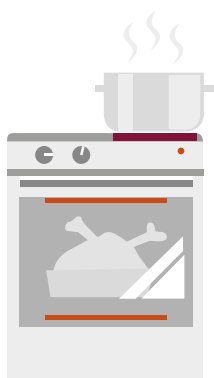
countries

”

WORKING THROUGH-
OUT THE WORLD –
ROOTED IN THE
REGION “

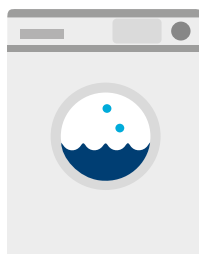
The E.G.O.-Group

The E.G.O.-Group (E.G.O.) is an international high-tech company with its headquarters in Oberderdingen. E.G.O. is regarded as one of the world's leading manufacturers of technologies, components and products for manufacturers of household appliances. Although E.G.O. also works in the fields of medical technology and building services and in the automobile industry, it concentrates all of its energy on the household appliance industry. The main focus here lies on three areas of application:



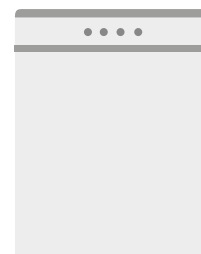
HOT

all applications
in the field of
cooking and baking



WET

all applications
in the field of
washing, drying and
dishwashing



PROFESSIONAL

all applications
for HOT and WET
in the commercial sector

”

HIGH-TECH
SINCE 1931

“



From a pioneer in electric cooking to a leading worldwide supplier

Making optimal use of resources has a long tradition at E.G.O. Karl Fischer founded the Schwarzwälder Zangenkontakt-Werkstätte in his home town of Oberweiler back in 1925, where he mainly produced installation materials. With the invention of the first electric hotplate suitable for mass production, Fischer revolutionized cooking. A short time later, his workshop also started producing stoves, electric ranges and electric ovens.

Fischer is introduced to the local entrepreneur Heinrich Blanc by the mayor of Oberderdingen at that time. The two visionaries quickly realize what they have in common, set up E.G.O. Elektrogerätebau GmbH in Oberderdingen on September 10, 1931, and establish international business relations from the outset. When the company is founded, the product portfolio is also transformed. From now on, E.G.O. produces components for household appliances – including hotplates, heating elements for ovens and regulating switches.

The company grows steadily. In 1936, for example, the first electric foundry is installed on site. After the Second World War, production quickly begins again and further development of all products continues. Production of thermostats and tubular heating elements begins in the 1950s.

Development into an international corporation continues, with the result that by the mid 1970s E.G.O. not only has 10 plants in Germany, but also 15 production and distribution companies abroad. E.G.O. begins production of electronic components and the first radiant heating elements for glass-ceramic hobs.

In the 1980s, thick film technology, electronics and sensor systems increase in importance. Radiant heating elements, thick film heating, induction heating elements and control systems using sensor technology shape the coming decades.

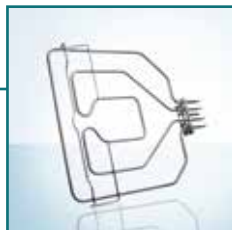
E.G.O. continues to make traditional products like the hotplate. Now, however, the focus lies on connective control systems, new user interface technologies and intelligent sensor solutions for products that can be adapted precisely to the needs of manufacturers, are resource-friendly to make and use, and ultimately meet the approval of end customers in the application.

Technological milestones

1931

Electric hotplate

Makes cooking simpler, cleaner and more convenient.



1957

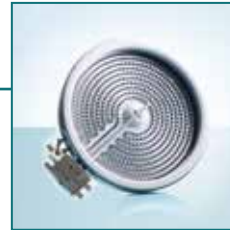
Tubular heating element

Heats ovens, washing machines, dishwashers, driers and much more.

1967

Stepless energy regulator

Adjusts the power precisely and steplessly



1978

Radiant heating element

Heats glass-ceramic hobs reliably

1986

Thick film

Versatile heating technology – in dishwashers, for example.



Proximity to the market determines strategic direction

In order to make optimal use of resources, there must be a consistent and generally applicable corporate strategy. At E.G.O., the strategic direction, which undergoes regular critical scrutiny and is adapted to current circumstances, is designed to ensure proximity to the market.

Customers are the focus of everything that E.G.O. does, which explains why the corporate strategy is called FoCus – For Customers. The link to the word focus, in the sense of “center of interest”, is deliberate and makes our aspirations clear. FoCus concentrates on three strategic areas: the household appliance industry, internationalization and customer management.

In the household appliance industry, the main focus is on the areas of cooking and baking (HOT), washing, drying and dishwashing (WET) and both areas in the commercial sector (PROFESSIONAL).

In the area of internationalization, the aim is to retain market shares in Europe, while acquiring others elsewhere – especially in the Asia-Pacific area (APAC) and in North and South America (AMERICAS).

In order to identify new customers and open up new markets, among other things E.G.O. is intensifying its efforts in the field of market research. New market opportunities are thus spotted more quickly and potential customers are identified as a result.



1992

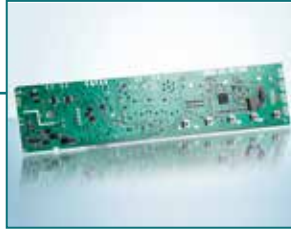
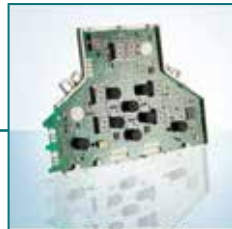
Induction

Heats food quickly, evenly, and very efficiently.

1994

Touch control

A completely new operating philosophy with no buttons or switches.



2016

Connective controls

Perfect interaction of the technology in household appliances.

2020

The connective kitchen

All household appliances are networked and work together.



E.G.O., BLANCO and DEFENDI have made optimal use of their resources in setting up a joint sales location in Shanghai. ▲



We go wherever our customers are and thereby save resources – E.G.O. Innovation Event 2016 in Berlin. ►

Development expertise brought together in competence centers

As a driver of innovation in the industry, E.G.O. always has technological resources at its disposal. E.G.O. has a large research and development department to come up with ideas, test prototypes and drive new products through to serial production.

E.G.O. has also chosen a two-pillar strategy comprising innovation and internationalization. The company is developing its strength in innovation by concentrating and focusing development expertise in various technologies in competence and development centers.

The two biggest competence centers are in Germany and Spain. Development work for the HOT division is focused in Oberderdingen. This covers everything relating to heating systems, including induction, thick film and radiant heating elements. Lliçà de Vall near Barcelona is the home of WET development – in particular, electronic solutions for dishwashers, washing machines and driers. In Newnan in the USA, Querétaro in Mexico and Taicang in China, there are also three smaller development centers that focus on adapting products for the respective markets. Different dimensions and standards apply to induction hobs in China, for example, and the products must be adapted to them precisely.

Research in pioneering technologies

Technicians and engineers at E.G.O. not only think up specific product ideas, they get involved in development at a much earlier stage. What will people's requirements of their kitchens and homes be in 10, 20 or 30 years? E.G.O. is not working on this alone, but together with numerous cooperation partners from all over the world.

What will the kitchen of the future look like?

E.G.O. is a partner in the "SmartKitchen" research project at Stuttgart Media University. Here an interdisciplinary team is developing solutions for integrating digital and customized media into the cooking environment of the future. Cooking should thus become more intuitive, social and interesting. The project began in February 2016 and runs until 2019.

Inductive wireless energy transmission

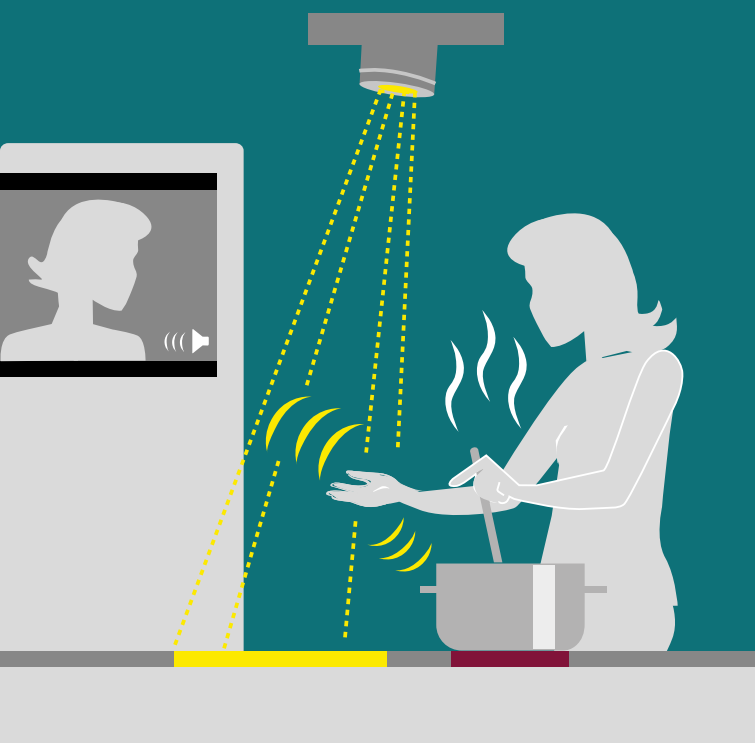
Wireless energy transmission is increasingly gaining in importance and is being driven forward in the field of inductive energy transmission by the Wireless Power Consortium (WPC), using the principle of magnetic induction. The Wireless Power Consortium is an organization with over 400 member companies (as of 12.31.2017) which promote inductive wireless energy transmission, develop procedures and standards, test the compatibility of manufacturers' products and train and support other member companies.



Over 345 technicians and engineers are working throughout the world on making products ready for series production. ▲



The annual Research Day looks at the technologies and solutions of tomorrow. ▲



E.G.O. has been part of this worldwide association since the beginning of 2017.

Microwave technology for energy applications

E.G.O. is a member of the Radio Frequency Energy Alliance (RFEA). The aim of this global industrial consortium that promotes microwave technology for energy applications is to support market success. Here, the members jointly define, for example, standardized interfaces, agree on a product and promote the technology. They are thus preparing the ground for acceptance of the technology and for its rapid growth. E.G.O. is a founder member of the consortium, which has been in existence since September 2014.



The focus in the Research division is on new materials and material and product technologies. ▲

Managing technological resources with GINNI

The GINNI innovation process defines the innovation strategy of the E.G.O.-Group and facilitates an approach that makes optimal use of resources. The letters of the name stand for the following principles:

Ganzheitlich (holistic)

We look at the innovation process in its entirety, from idea generation to market success.

Innovativ (innovative)

We use creative and systematic methods to control the entire development process for our products and services.

Nachhaltig (sustainable)

We ensure long-term and sustainable innovation based on stable processes with clearly defined interfaces.

Nutzenorientiert (benefit-focused)

We generate innovative products and services that provide people with clear benefits.

Intelligent (intelligent)

We combine our knowledge of the market and technology and translate this into products and services.

People are the foundation of our success

The requirements of human resource management are growing at a rapid pace and are becoming increasingly complex: digital change is opening up entirely new perspectives in work and organizational structure, in corporate culture and also in formal and informal learning.

Looking outside the company and finding ways to integrate collaboration partners and stakeholders is becoming a fundamental task of HR management. The central question here is what the most important corporate competency is.

Whoever you ask, whatever you read and wherever you investigate, the answer is very likely to be the same: the capacity to adapt quickly to changing circumstances. Those companies that are able to renew themselves continuously and sustainably and treat resources responsibly have the best chances of long-term survival in the rapidly changing business world.

We are certain that our managers throughout the world are the key to successful change. The core competency in our model of eleven competencies is therefore “E.G.O. Leadership”. It is so important to us that we will be focusing on it specifically in this section.

Alongside it, we create the conditions in which employees can make optimal use of their resources. We will show you how that works by means of numerous examples in the following section. The fact that we operate extremely successfully is demonstrated not only by our low employee turnover and the loyalty of our employees to us over many years, but also by the many prizes and awards that we have received.

MARKUS BLÜMLE
Director Human
Resources

SANTINA PANZER
Head of Human Resources
Marketing



Management competency development program-award-winning throughout the world

With its new “Global Competence Leadership Development” concept, E.G.O. is supporting the development of managers at all of its sites: the model provides a standard process for personal development meetings and subsequent development training. The new concept is so impressive that it was awarded the DEKRA seal “Excellence in Global HR Management” in May 2017.

During a detailed audit by DEKRA, which was based on the latest developments in the ISO standard TC260, Global Human Resource Management at the E.G.O.-Group was subjected to a detailed inspection. The HR guidelines and the projects currently being run by the division were analyzed and evaluated in this process. The leadership competence development program, in which the implementation of guidelines is checked for consistency and developed further on the ground in collaboration with the local managers, was highlighted in particular. This makes it possible to take full account of the local circumstances at the 18 sites in the E.G.O.-Group, which are located in 16 different countries.

An innovative and creative process for the new “E.G.O. Leadership” competency

In view of an ever more complex global market driven by competition, systematic training and development of managers is more important than ever. This explains why the E.G.O. Management Board commissioned the Global HR Management division to develop a consistent concept to improve leadership competence at all E.G.O. locations. Together with the managing directors from the production sites and the divisional heads from the central functions, the HR division therefore addressed the issue of “E.G.O. Leadership” at the International Management Meeting in 2016. The “Design Thinking Method” was used in this context.

The participants were given the task of creating prototypes for the “E.G.O. Leadership” competency. These models and the findings from the workshops were used to define the competency in writing. The result is a standardized model throughout the world. This facilitates a sustainable continuous development process: managers prepare personal development meetings systematically in conjunction with the employees concerned and they then draw up a development plan together to extend the competency of the employee, which is documented in detail.

DESIGN THINKING METHOD

The approach of Design Thinking is based on human interaction. All impressions relating to a problem are brought to life with appropriate forms of visualization, such as photos, sketches, videos, objects and prototypes. With Design Thinking, the emphasis is on creativity. The ideas generated are intended to create an emotional experience and thus form the basis for discussions and thought processes. By creating models, people can understand and evaluate them better.



Between September 2016 and April 2017, the managing directors and managers at all of the sites first took part in a one-day training course. Here the HR team presented the entire process and the tools used in the new model in practical exercises. In addition, managers were trained in practical implementation of personal development meetings. In the workshop, the participants also learned more about the new “HR Guide global” IT tool, which facilitates lean and efficient documentation of the meetings.

In future, it will be possible to plan personal development measures in a more specific and sustainable way and to improve their coordination. The feedback from the various courses shows that the new concept is being seen as a big opportunity for the company.



Well trained for the future. Here the managers from the E.G.O. ▲ site in Croatia take part in a workshop.

”

The global IT tool offers a structured and standardized procedure that leads both managers and employees through the process. It is easy and intuitive to use and is transparent for everyone. The tool also offers managers with a large number of employees a cockpit by means of which they can manage the entire process efficiently.

The responses of managers and employees alike have been exclusively positive, as both groups benefit from the new process and the new tool. The process improves communication between supervisors and employees, as it requires frequent and open communication between the two parties. Different perceptions and expectations can be clarified and a discussion takes place between the two to determine how the development plan can be implemented.

Domagoj Matasic
Managing Director Elektrokontakt
d.d., Zagreb

“



Standardized and sustainable throughout the world

The core competency is “E.G.O. Leadership”

In order to ensure success, the company must undergo the unavoidable processes of continuous change. This development demands a high degree of efficiency, willingness to learn and flexibility of all managers and employees. The core competency is “E.G.O. Leadership”.

The global concept for managers holding personal development meetings using a worldwide standard competency model was developed by the Global HR Management department of the E.G.O.-Group. The group expects the global competency model to provide an internationally standardized basis for employee development that will particularly help managers with personnel responsibilities at multiple sites to ensure that development is consistent around the world.



The following process is mapped out for managers conducting personal development meetings using software:

Start

Arrangement of meetings

Evaluation by manager

Information email sent to the manager:
Communication of the chosen competences to the employee

Information email sent to employee:
Execution of the self-evaluation

Development meeting

Hold the personal development meeting

Development plan

Drafting of a development plan and documentation of the results

Information email sent to employee:
Confirmation of the documentation

Follow-ups

Implementation of the measures from the development plan

”

3 QUESTIONS TO ...

Claudia Ferber
Global HR Management

“

How is the competency model being turned from a theoretical approach into a practical reality?

First, we informed the site managing directors about our plans and what the approach comprises. Then the local officers from the HR departments at the sites were provided with all of the relevant information at the same time by means of a web conference. Over a period of eight months, we have also held one-day training courses for the managers at all of the sites so that the concept could be introduced in a customized form that is based as closely as possible on practice in each location.

How can you ensure global implementation?

The fact that we involved decision-makers and managers at a very early stage of the project paid off in the high level of engagement and commitment. The process is being supported by Global HR Management. We also initiated a quality control mechanism after the first round of meetings involving questionnaires and interviews. We noticed in the courses that the introduction of personal development meetings is seen throughout the world as a big opportunity to improve the company's success and the climate in the company.

What are the advantages for managers?

Through institutionalized annual personal development meetings between one manager and another on the next highest level, communication is initiated to assess competencies, both through self-assessment and assessment by an immediate supervisor, and to encourage personal development. These aspects end in a concrete development plan for the person concerned. This ensures that employee development takes place in the interests of the person concerned and of the company.



Worldwide guidelines adapted to local circumstances

It is not only the management competency model, but also all the other aspects of HR that are managed centrally from headquarters in Oberderdingen. The E.G.O. locations take responsibility for adapting the international guidelines to their own statutory, national and cultural circumstances.

There are currently 20 standardized guidelines, projects and processes in the area of human resources across the entire E.G.O.-Group, covering the fields of HR marketing, HR development, recruitment and deployment of employees. In 2017, the following new guidelines were introduced:

20

guidelines
in total

**Global Staff Exit Process for Knowledge Management:**

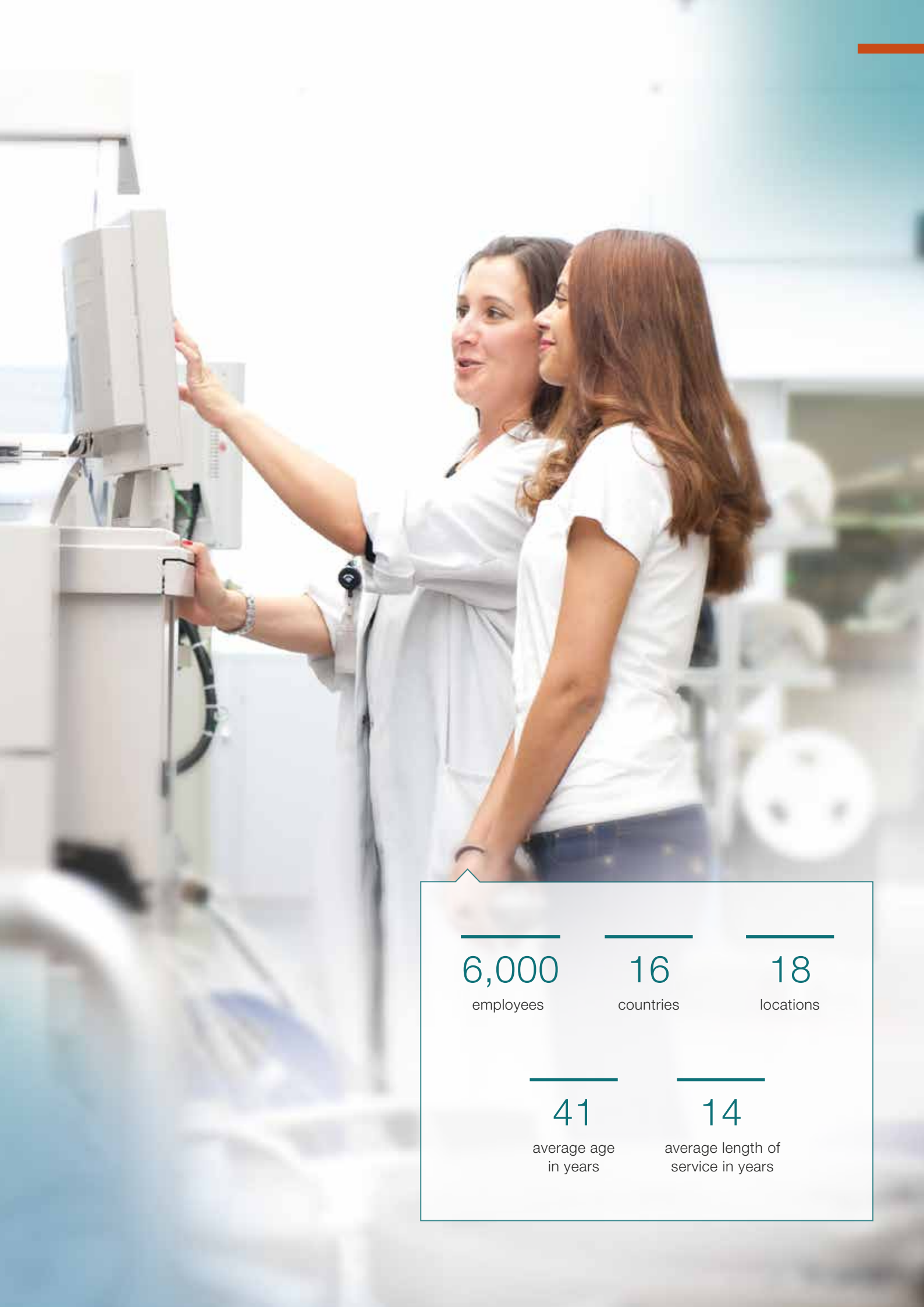
This guideline dictates how the issue of knowledge management is to be handled when an employee leaves the company.

**Global Process Key People:**

This guideline helps to identify and evaluate key individuals and to derive actions to be taken on that basis.

**Global Process Strategic Succession Planning:**

This guideline serves to identify, evaluate and derive measures to be taken in the context of strategic succession planning.



6,000

employees

16

countries

18

locations

41

average age
in years

14

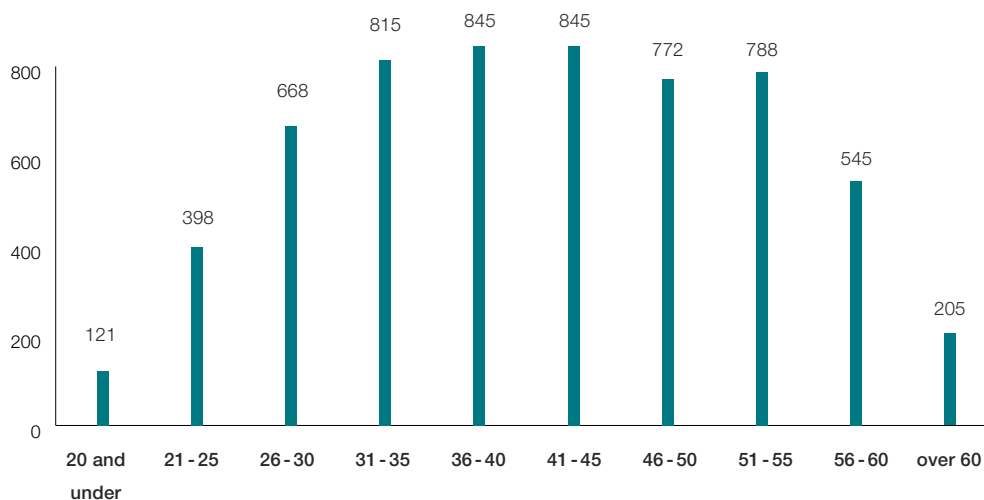
average length of
service in years

E.G.O.-Group personnel structure

	Number of employees	Number of full-time employees	Average company service in years	Average age in years
ETA d.o.o. Cerklno, Slovenia	923	881.50	23.47	44.79
E.G.O. Austria Elektrogeräte Ges.m.b.H., Austria	215	178.31	18.76	42.86
ELEKTRO-KONTAKT d.d., Croatia	762	757.50	23.00	45.00
E.G.O. North America, Inc., USA	231	228.13	14.00	35.00
E.G.O. companies in Germany	1,738	1,450.60	18.73	45.01
E.G.O. Elektro-Geräte AG, Switzerland	41	38.70	11.41	43.60
E.G.O. Nihon Co., Ltd., Japan	4	4.00	6.75	48.50
E.G.O. United Kingdom Limited, Great Britain	6	5.00	7.1	34.50
E.G.O. Appliance Controls, S.L.U., Spain	321	306.01	9.63	42.56
E.G.O. Polska Sp. Z o.o., Poland	217	214.50	4.76	35.00
E.G.O. Componentes Electrónicos, S.A. de C.V., Mexico	225	223.00	2.7	33.30
E.G.O. Central and Eastern Europe Sp. z o.o., Poland	4	4.00	6.25	37.00
E.G.O. Components (China) Co., Ltd., China	703	703.00	2.47	34.09
E.G.O. Elektrikli Aletler Sanayi A.Ş., Turkey	608	608.00	5.48	35.00
E.G.O. South Korea Ltd.	4	4.00	1.75	35.75
Total	6,002	5,606.25	14.00	41.00

As of: 12/31/2017

Employees by age group





176 employees from the German site alone celebrated 10 years of service in 2016, while there were 255 who were marking a special anniversary in total. ▲

E.G.O. companies in Oberderdingen: Many years of faithful service recognized

In 2016 alone, the E.G.O. companies at the Oberderdingen site honored a record 255 employees who celebrated special anniversaries of their long service. This represents one in seven employees. In 2017 there were another 122 anniversaries of the same sort. The employees celebrated their total of 6,230 years of service together with their partners, the management board, shareholders, the works council and their supervisors at a special event in Oberderdingen.

E.G.O. Elektrikli Aletler Sanayi A.Ş. marks International Women's Day

On March 8, business and production management gave out 300 bouquets of flowers and two cinema tickets to female employees. Managing Director Taylan Üstünyer: "As a thank you and as a symbol for a world of work in which integration and equality are paramount." E.G.O. Turkey also won an award in 2017 for its approach to equal opportunities.



The event to mark the anniversaries at the company headquarters in Oberderdingen has a long tradition - and everyone involved enjoys it. ▲



On International Women's Day this year, all of the female employees at E.G.O. Elektrikli Aletler Sanayi A.Ş. received a bouquet of flowers. ▲

Training and study with prospects

Every year, around 30 young people take the first step in their professional lives at E.G.O. in Oberderdingen. In addition to receiving basic instruction in our modern training center, the apprentices and CSU students spend time in various different departments as part of their training. A total of more than 100 training officers in various departments look after this next generation of employees. Young people from external companies also frequently attend the training center as guests. E.G.O. has been involved in the training association for over 20 years. Optimal use is thus being made of our resources.

~100

training
officers

17

different
training

< 20

years of
association
training

30

trainees and
CSU students
per year

Dual training at

E.G.O. Austria Elektrogeräte Ges.m.b.H.

In Austria, apprentices also go through the dual training system. Training takes three-and-a-half years. At E.G.O. Austria, young people have the opportunity to train for the following careers: Metal Technology Mechanical Engineering Technician, Electrical Engineering Systems and Operations Technician, Technical Draftsman/woman and, since 2017, Mechatronics IT and System Technician.



E.G.O. companies in Germany have their own training. ▲

E.G.O. North America, Inc.:

Training in line with the German model

In the US state of Georgia, there is a training program that follows the German model: the Georgia Consortium for Advanced Technical Training Program (GA CATT). During the three years of the program, partner firms such as E.G.O. North America, Inc. are responsible for looking after the GA CATT students. From the 10th grade, high school students have the opportunity to complete their education with a German apprenticeship certificate and an associate degree in Industrial Mechanics from West Georgia Technical College.



In the US state of Georgia, there is a new training program that E.G.O. has helped to develop. ▲

Promoting technology and providing orientation through cooperation

Insights into practice that are as close to reality as possible are provided in the E.G.O.-Group not only during internships, but also through a wide range of special events and cooperation activities. Along with promoting technology in children's day-care centers, courses for applicants in schools, campaign days and specialist presentations, there are practical workshops and competitions in colleges.

Girls' Days

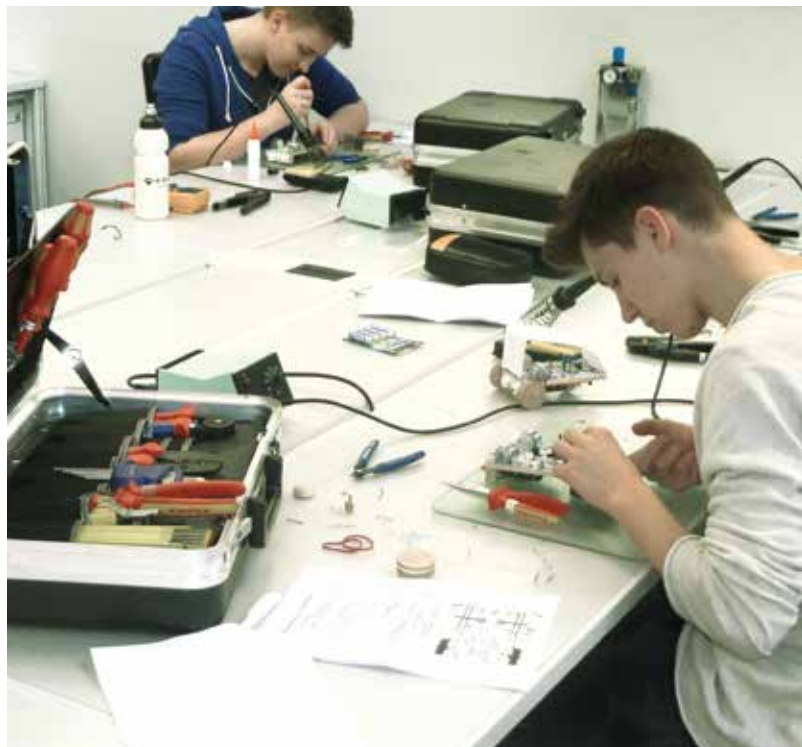
On Girls' Day, companies, businesses and colleges open their doors to female school students. The girls find out about training careers and courses in information technology, trades, natural sciences and technology, all careers that are still rarely chosen by women. E.G.O. Austria has been involved in Girls' Day for some years. The 32 participants in Girls' Day in Germany also obtained plenty of practical information and insights into the company. They designed and built a battery-operated desk fan under the guidance of the E.G.O. trainers.



Girls put their technical skills to the test during Girls' Day, which is held in Germany and Austria. ▲

Gaining practical experience

Realistic insights into practice are offered to boys and girls at E.G.O. Austria in sample internships and so-called "rookie workshops". The school students gain practical experience and have the opportunity to show off their talents in small projects in the fields of mechanics and electrical engineering. The Technical Internship Week is held regularly in Oberderdingen, allowing senior grade school students to gain practical experience through numerous experiments and small projects in the field of electrical engineering.



During the technical internship week, senior grade students gain exciting insights into technology. ▲

Long-term involvement with universities

The university cooperation network of the E.G.O. companies in Oberderdingen currently covers four institutions: Pforzheim University and the Cooperative State University of Baden-Württemberg, the University of Applied Sciences and the State Seminar for Didactics and Teacher Training all in Karlsruhe.

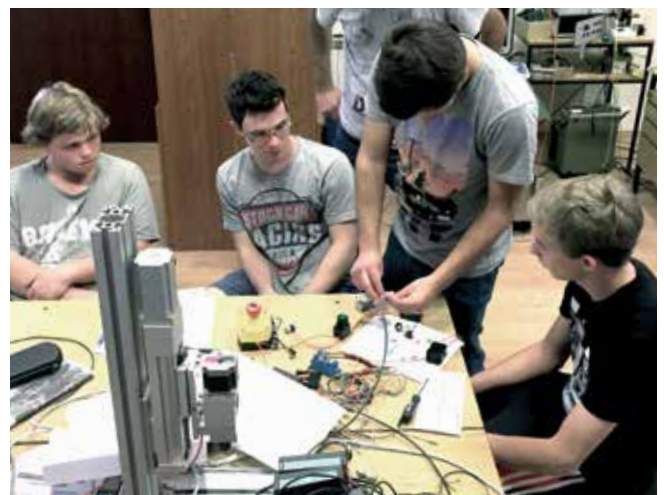
The components of the cooperation include lectures on specific topic areas, workshops with students, plant visits, participation in university exhibitions and subject-specific sponsorship.

Successful cooperation of Elektro-Kontakt d.d. (EKZ) with educational institutions

EKZ in Croatia has been working successfully with vocational colleges and faculties in Zagreb for many years. This currently involves five higher vocational colleges and two universities. Through this cooperation, Elektro-Kontakt d.d has established itself on the Croatian jobs market as a popular and socially responsible employer.



The E.G.O. Technology Development Prize is awarded for outstanding work at Pforzheim University.



E.G.O. offers its cooperation partners realistic insights into practice throughout the world.



HR Development provides support as required

Taking responsibility for the future and for employees in the E.G.O.-Group also means providing people with continuing support that meets requirements and demand for professional development. On the basis of the E.G.O. competency model, the company supports the personal and professional development of its employees. In the annual personal development meeting, training that is suitable for the individual is identified by the employee and the manager together.

In addition to systematic personal development meetings and the internal manager development program, E.G.O. offers the following as required:

- Internal training catalog with various internal and external courses
- External, subject-specific advanced training courses
- Coaching on a one-to-one basis
- Group coaching
- Support for personal development
(Master, Technician, Business Administrator)
- Support for studies alongside work (Bachelor's, Master's degrees)

Employer services are above-average

The E.G.O.-Group offers above-average salaries, a series of performance-related additional payments and other attractive salary building blocks. Employees are rewarded with a bonus when targets are met, and net pay can be enhanced by means of various initiatives. Different models of the company pension scheme make it possible for every employee to provide for themselves beyond their professional career. Other attractive offers and payments, some of which are location-based, are also above average. They have one objective in common: managing human resources as effectively as possible and encouraging and supporting every employee in the best possible way – not only financially.

E.G.O. Components (China) Co., Ltd.:

Flexible organization of working time

Since 2016, there have been flexible working hours at E.G.O. China for most employees. In Taicang, E.G.O. China was the first company to introduce the working time system. Every employee can come to work between 6.00 and 10.00 a.m. and end their working day between 4.00 and 7.00 p.m. If an employee works for more than eight hours in a day, the overtime is calculated automatically and time off is provided in lieu. This enables employees to reconcile career and family more readily.



The employees of E.G.O. China like their flexible working hours ▲ and the free time they get in return.

~150

different working time
models are in use at
E.G.O. throughout the
world

Special tariffs for health insurance at E.G.O. Appliance Controls, S.L.U. (E.G.O. Spain)

Employees of E.G.O. Spain and their families benefit from reduced health insurance tariffs and special conditions for their payments. The contribution is deducted directly from salaries and is not subject to income tax. This not only makes the insurance particularly attractive to employees, but also saves on tax.

E.G.O. Polska Sp. z o.o.: Learning through play

In June 2017, the parking lot in front of the Polish site in Lodz was transformed into a colorful playground. The employees' children had plenty of fun on the huge slide, bouncy castle and trampolines, and they were able to burn off some energy playing soccer billiards and participating in various other games, activities and competitions. A particular highlight of the program was the children who work for the volunteer fire brigade, who carried out a fire safety exercise and ran courses on fire barriers and the principles of first response.



The two-week E.G.O. children's vacation program took place at the Oberderdingen site in 2016 for the first time. ▲

E.G.O. companies in Germany (E.G.O. Germany): Vacation care for employees' children

In 2016, E.G.O. offered a two-week vacation program for children of employees between the ages of six and twelve at the Oberderdingen site for the first time. In this way, E.G.O. Germany has added another important building block to the concept of reconciling career and family. In 2017, the program again met with large demand and was booked up within a few days. 40 children aged between six and 14 enjoyed themselves over a two week period.

E.G.O. China unites families

E.G.O. Components (China) Co., Ltd. organized a six-week summer camp for children of employees for the second time in 2017. Around 80 children aged between six and twelve took part in it. While their parents were working, there were events and excursions on the program specially organized for them. Shuttle buses picked them up in the morning and brought them back to their accommodation in the afternoons. The aim of the camp was to bring together families who otherwise have to live apart for a few weeks in the summer. The icing on the cake was a big family day for parents and children.



Employees' children at the E.G.O. site in Lodz were able to burn off some energy by taking part in games and activities. ▲



Since 2016, a six-week summer vacation camp has also been run at E.G.O. China. ▲

Health management: a worthwhile investment in the future

“We are the greatest commodity at E.G.O.!” – this is one of the guidelines of the corporate group. The issue of health is central in this. The objective is to maintain the health and efficiency of employees under conditions that are changing all the time. E.G.O. runs numerous schemes throughout the world in this connection, such as sporting activities, preventive and health activities and healthy nutrition.

E.G.O. Elektro-Geräte AG: Running for a personal best

At the 2017 B2run Schweizer Firmenlauf (Swiss Companies' Race) in Zug, E.G.O. Elektro-Geräte AG was represented on the starting line by seven committed runners. The team of employees in Zug went training once a week together to prepare themselves for the race in the best possible way. E.G.O. team came in 21st of over 70 firms in the company ranking.

~30

sport groups
worldwide

50%

time credit for
exercise breaks in
Germany

Annual health check at E.G.O. Components (China) Co., Ltd.

At the E.G.O. site in China, there has been an annual health check and consultancy service for traditional Chinese medicine since 2015. Completing the health check for all of the 700 employees takes several days. Every employee is given two hours off for this. As part of its consultancy service for traditional Chinese medicine, E.G.O. China also invites doctors to come into the company every month and offers presentations on various health topics.

E.G.O. companies in Germany: Varied and healthy food

Since the start of 2017 the company restaurant in Oberderdingen has been under new management. In addition to three lunch menus and a salad bar, a large breakfast is also on offer. For colleagues who cannot make it to the restaurant, the mobile snack van runs around the individual production facilities offering a bite to eat – powered by its environmentally-friendly electric engine.



The E.G.O. team showed its total commitment during the Schweizer Firmenlauf in Zug.



About 500 employees eat in the restaurants at the Oberderdingen site every day.

The best possible working environment – safe and ergonomic

With safe and ergonomic workstations, E.G.O. offers its employees the best possible working conditions – far beyond what is prescribed by law.

The design of machines and workstations in accordance with the latest technology is an important starting point for this. Investment has also been made in avoiding accidents in the workplace through a multitude of preventive measures. Risks are analyzed by means of regular risk analyses and measures to reduce them are identified. In regular safety briefings, employees find out about general rules of conduct and are trained in specific topics such as first response, using fire extinguishers and forklift trucks. Annual evacuation exercises are a matter of course at E.G.O.-Group, as are inspections by the local authorities.

If there is an accident in the workplace despite all of the preventive measures, a prompt, detailed analysis of the accident is carried out to ensure that the same or similar accidents do not occur in future. There are regular meetings of the safety committee in this connection, too.

E.G.O. Austria Elektrogeräte Ges.m.b.H., Austria manages manual handling of loads

For workplace design that does not cause health problems, E.G.O. Austria adopts the so-called Key Indicator Method. This is a tool for objectifying physical workloads. Not only criteria such as the mass of the loads and the frequency of the transport processes are included in the evaluation, but also conditions such as the firmness of grip, the properties of the floor and the body position when manipulating the load. The Key Indicator Method is a practical tool for ergonomic optimization of work activities and can help to keep employees healthy.



In regular safety briefings, employees find out about general rules of conduct. ▲



At the Austrian site in Heinfels, work activities are optimized by means of the Key Indicator Method. ▲



At E.G.O. there are numerous preventive measures in place to ensure that accidents in the workplace do not happen at all. ▲

Lockout-tagout devices at E.G.O. Componentes Electrónicos, Mexico

Lockout-tagout devices have been procured for all machines to protect employees during maintenance work. These prevent the machines from being switched on again unintentionally. At the same time, the employees were trained in how to carry out maintenance work properly.

E.G.O. companies in Oberderdingen, Germany

Important emergency information, such as the rescue chain, locations of defibrillators, the digital first-aid book and important telephone numbers of hospitals and doctors, has been easily and quickly accessible to everyone on the intranet since 2017, under the heading "Emergency".

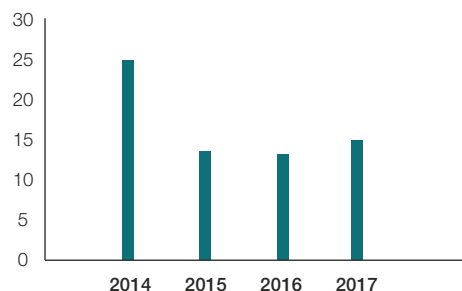


In order to raise employees' awareness, information about the number of days without accidents since the last accident in the workplace and the number of accidents in comparison to previous years is displayed on the information screens.

E.G.O. Components (China) Co., Ltd., China: Accident rate falls

The industrial safety and health management system at the Taicang site was recertified in 2016. The many small measures that have been implemented, such as changes in the procedure for winding induction coils and improvements in the soldering equipment, have also been reflected in the fall in the accident rate.

Number of industrial accidents per 1000 full-time employees in China established at a low level



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Employees are the basis of our success and are therefore our most important resource, even though I find it difficult to use this term in connection with people. We create the conditions that allow employees to work as effectively as possible – always with a focus on the health of the employees. The fact that we operate extremely successfully is demonstrated not only by our low employee turnover and the loyalty of our employees to us over many years, but also by the many regional, national and international prizes and awards that we have received.

“

Benno Rudolf



Sustainable business safeguards the future

Sustainable economic growth is a crucial factor in safeguarding jobs at all E.G.O.-Group sites throughout the world. We are doing our best to achieve this: we work continuously to optimize processes, increase flexibility and further reduce production costs. In doing so, we not only opt for environmentally-friendly products and processes, but also for management of resources in our production facilities that shows awareness of our responsibilities.

We plan carefully and therefore recognize future developments on the market at an early stage. Accordingly we are able to manage our activities in the production network in a targeted way, by exploiting synergies, for example, by optimizing material flows at the level of the plant or between plants, or by reducing transport distances.

Numerous tools contribute to making optimal use of resources, to organizing the production network with a focus on customers and our own success, and to improving continuously at the same time. These include both the key performance indicators (KPIs) that relate to the success, performance or capacity utilization of the company, its individual organizational units or a specific machine – and the EVEREST program, our established, company-wide optimization program for implementation of lean processes and control loops. This covers CIP-projects (continuous improvement process), in which processes and workflows are improved in small, continuous steps.

We also run OPEX (Operations Excellence) projects, which relate to optimizations in a larger, interdepartmental context with a focus on overall strategy.

Over the next few pages, we will demonstrate how we have succeeded in doing this in 2016 and 2017 by means of a selection of examples.

THOMAS SCHMIDT
Director Operations Plant
Oberderdingen

REINER DIEFFENBACHER
Director Corporate Industrial Engineering
and Operations Management



Making optimal use of resources through optimization measures in the production network

The international production network of the E.G.O.-Group is made up of a total of ten production sites. Managing their resources covers many areas. The specialists in the E.G.O.-Group not only examine the individual plants and locations, but also relocate production, in some cases across borders, in order to increase synergies and/or reduce transport distances. Processes in the production sites also undergo continuous improvement and capacities are created where they are needed. In other divisions, such as Development and Administration, efforts are also being made to optimize existing processes, reduce (transport) distances and make optimal use of space.

ETA d.o.o. Cerkno, Slovenia: Diastat and thermostat production relocated and reorganized

Diastat production has been brought together in one place by applying **EVEREST principles**. Rather than being spread around six production departments over three floors, there is now only one department on the ground floor. Instead of being arranged by working groups as previously, the machines are now organized by product families and according to the individual processes. The material and information flow has been improved and transparency increased. Stocks have also been reduced and the **pull principle** has been introduced.

In addition, the administration and service centers have been relocated to achieve better communication and bring them closer to production. At the same time, ETA developed a concept for optimization of thermostat assembly, which is now no longer spread out but is located in one building. The ETA team used the tried and tested EVEREST methods in the project.

EVEREST principles

Like all modern production systems, EVEREST concentrates on continuous improvement and avoidance of waste in all processes. It is based on four fundamental just-in-time principles: flowing, clocking, pulling and '0 errors'.

PULL principle

The customer or downstream process step gives the trigger for when and what something is to be produced or delivered, in what quantities or sizes.

The performance indicators confirm successful implementation in the period 2016/2017:

240
Shorter
transport distances
per day

21%
Lower energy costs
in thermostat
production

40%
lower warehouse
stock
for diastats

37%
Space
saved

Relocation of the hotplate mixing plant to Cerkno:

3

shifts

100%

waste heat
utilization

< 1

year
Return On
Investment (ROI)

From headquarters in Oberderdingen to the sites in Croatia, Slovenia and Turkey

In view of falling demand and increased costs in the production process as a result, among other things, of heat treatment furnaces with high electricity costs that were not being used at full capacity, tubular heating element production relocated at the end of 2016 from Oberderdingen to the Turkish site E.G.O. Elektrikli Aletler Sanayi A.Ş. in Ergene. The Micro Tubes department was moved to Slovenia, as the Slovenian site ETA d.o.o. Cerkno is the largest internal consumer of micro tubes. Intercompany transport between Germany and Slovenia has thus been minimized. In addition, it has been possible to link pro-

duction processes more effectively and save space for stock. Likewise, the hotplate mixing plant is now located at ETA d.o.o. Cerkno. The plant in Slovenia now operates with three shifts and is smaller and more efficient in its consumption of electricity. The system is connected to the waste heat from the foundry in Slovenia, which is used to dry the primary materials. No more heating oil is required, as was the case in Oberderdingen previously. The punching line has also been moved to where subsequent processing takes place: to the Elektro-Kontakt d.d. site in Croatia and the ETA d.o.o. Cerkno site in Slovenia. Only a small part of the punching work has previously been carried out in Oberderdingen.



Tubular heating elements were produced at the site in Turkey. ▲



Hotplate production at the Slovenian site in Cerkno. ▲

E.G.O. Polska Sp. z o.o.:

New electronics production site

In 2016 E.G.O. Poland completed all of the relocation projects from the former E.G.O. Control Systems GmbH site in Balingen in Germany and from the Spanish site E.G.O. Appliance Controls, S.L.U. Electronics production at the Polish site has the latest equipment and meets the highest safety requirements – 23 audits have been completed there with good results. The new electronics production site in Poland fits perfectly with the “FoCus” strategy of the E.G.O.-Group, which concentrates on the household appliance industry and further internationalization.

Process optimization and high delivery service level

Processes and workflows have been reorganized because of the new product portfolio at E.G.O. Polska Sp. Z.o.o. Together with Polish colleagues, the specialists from Corporate Supply Chain Management analyzed all of the processes and information flows at the Lodz plant in Poland. The **Dispo-Cockpit** and the data quality were the key elements in this. Targeted use of the IT tool was optimized in workshops and through employee training courses. After initial delivery problems, it was possible to bring the **delivery service level** up to the target value by means of individual measures. At a further stage, the incoming and outgoing goods processes were examined and optimized.

DELIVERY SERVICE LEVEL

The delivery service level (or readiness for delivery) serves to monitor the warehouse stock and is an important performance indicator for a company's stocking policy. If the delivery service level is too low, it results in shortfall costs, e.g. production shutdown. If the delivery service level is too high, on the other hand, it causes high capital commitment costs and thus high warehousing costs,

Delivery service level =

$$\frac{\text{Number of quantities delivered immediately}}{\text{Number of quantities requested overall}} \times 100$$

DISPO-COCKPIT

The Dispo-Cockpit is a software package based on SAP by means of which costs can be cut, stocks optimized and readiness for delivery increased.

Michał Pietruszewski and Urs Petrig, Managing Directors
E.G.O. Poland, in the electronics production. ▼



E.G.O. Produktion GmbH, Oberderdingen: **Additional capacity for thick film production at headquarters in Oberderdingen**

As a result of the relocation of production lines to other sites, space has become free at headquarters in Oberderdingen. The first step moved thick film production into the hall in which tube and tubular heating element production was located until the end of 2016. In the new and modern hall, an area of over 6,000 m² is available to extend thick film production capacity. Thick film production previously had to make do with 3,700 m² and it was spread over four building units. The internal material flow, delivery of raw materials and shipping of finished goods have all been improved.

OPEX project implemented successfully

In the course of the **OPEX** project in the Thick Film division in Oberderdingen, all of the processes and procedures in the production area and at the interfaces were put to the test, in parallel to the move into the new hall. The objective was to increase efficiency and flexibility in the factory significantly. The OPEX team converted the entire production control system and material provision from the push to the pull principle and reduced the work involved in making bookings. At the same time, optimized

production time, regular five-minute meetings with up-to-date performance indicators and regular discussion of quality, costs and delivery reliability improved communication and visualization in production. By employing **Six Sigma** methods, the team was able to improve quality and thus reduce reject costs significantly. It was also possible to reduce the cycle time significantly.

Avoiding parts tourism with well thought out logistics processes

Reducing transport distances always brings advantages. Goods reach their destination not only more quickly but also more cost-effectively. And the environment benefits, too. Where this is not possible, the specialists from E.G.O. always look for ways to move goods from A to B in a way that conserves resources as much as possible.

Central warehouse versus direct shipment

The central warehouse at headquarters in Oberderdingen ensures that the main markets in Europe and overseas are supplied quickly and reliably. Deliveries from production plants are continuously checked to determine whether direct supply of the customer or between the production plants would bring advantages in terms of logistics.

OPEX

OPEX (= Operational Excellence) is a philosophy, method and program for alignment of company processes with customer requirements, quality and efficiency and for their continuous optimization.

SIX SIGMA

Six Sigma is a systematic approach to improving processes. At its core is the description, measurement, analysis, improvement and monitoring of business processes using statistical methods.

It has resulted, for example, in induction coils made at the production site in China being delivered directly to the sites that process them since 2017 and finished products from the E.G.O. production site in Austria being supplied directly to colleagues at the site in the USA for subsequent distribution to customers in America. Delivery of goods that were previously routed through the central warehouse is thus increasingly moving towards direct shipment, working with new logistics concepts to ensure environmentally-friendly and resource-friendly supply of customers and E.G.O. production companies.

New avenues in transport logistics

Compared to deliveries by sea, rail transport promises not only shorter running times but also significantly lower levels of harmful emissions. The CO₂ emissions are eight times higher for delivery by sea than for rail transport. E.G.O.-Group is currently trialing transport by rail from its production plant in China to the sites in Europe. Overall, it has been possible to keep the proportion of air freight below 1 percent worldwide (as a proportion of gross weight). For pre-carriage and onward carriage of deliveries by sea, our target of 70 percent for more environmentally friendly shipping and rail transport was easily exceeded by the actual figure of over 90 percent. The shipping companies used by us for inland transport only use vehicles that meet the Euro 6 standard.

E.G.O. Appliance Controls, S.L.U.:

More space for development and production

The Spanish plant of Llica de Vall near Barcelona is a strategically important innovation site, at which, in particular, control electronics are developed and produced for washing machines and dishwashers. Increasing product demand and the development of the competence center for the development of control electronics made an extension essential, the opening of which was marked by an event in 2016. The result of the investment in the Spanish site is a set of buildings now covering a total area of 7,395 m². The Corporate Innovation/Research & Development, Product Management and Project Management departments now have an area of over 1,337 m² for offices, meeting rooms and laboratories. The warehouse extends over an area of 1,260 m², most of it with a height of 11 m. 2,618 m² is available for Production, while an area of 982 m² has been modernized in the existing buildings for the Purchasing, Administration and Industrial Technology departments.

< 1%

Proportion of
air freight

90%

Ship and
rail transport journeys

Making optimal use of resources across the company

New E.G.O. company headquarters in Oberderdingen: Using space more efficiently and exploiting synergies

Space became free as a result of the move of thick film production and the closure of the punching line. The construction work for the new administration building for the E.G.O.-Group began in this area in summer 2017. The building should be finished by mid 2019. Then around 140 employees in the administration of BLANC & FISCHER Family Holding and the E.G.O.-Group will move into the building, which covers an area of about 5,800 square meters. The new building will bring important functional divisions – previously scattered around various buildings – together under one roof. Oberderdingen is not just the headquarters of E.G.O., but also of other subgroups of BLANC & FISCHER

Family Holding. Alongside E.G.O., these include BLANCO and BLANCO Professional. Various options have therefore been analyzed carefully in order to exploit synergies as effectively as possible at the joint site and to create adequate development opportunities for all of the companies.

The existing company headquarters of E.G.O. in Plant 1 in Rote-Tor-Straße is being renovated and turned into the new headquarters of BLANCO Professional. BLANCO is taking over the current office premises of BLANCO Professional.

BLANC & FISCHER Family Holding

The E.G.O.-Group is part of BLANC & FISCHER Family Holding, which shapes kitchens as living spaces all over the world. The Group has five subgroups: in addition to E.G.O, the sink and fittings manufacturer BLANCO, BLANCO Professional, the Italian gas component manufacturer DEFENDI and the French induction and gas stove manufacturer ARPA. The companies employ a total of around 8,000 people in 22 countries worldwide. In 2016 the Group recorded a turnover of over EUR 1.2 billion. The holding is in the full ownership of the families Blanc and Fischer.



E.G.O. Elektro-Gerätebau GmbH:

Integrated logistics

At the beginning of 2017 E.G.O. Logistik GmbH merged with E.G.O. Elektro-Gerätebau GmbH. As a result of the merger, all of the customs licenses lapsed. Completely new applications had to be made for them and they had to be approved by the relevant authorities. Everything went smoothly.

The “Authorized Consignee” (import) and “Authorized Exporter” (export) permits were of particular importance. Both permits simplify the shipping and export procedures: “Authorized Consignees” can receive goods on which duty must be paid directly on their own premises and make a customs declaration from there. Similarly, “Authorized Exporters” can declare export goods at registered loading locations independently of the customs office. In addition, E.G.O.-Group has re-applied for and been granted the highest level of license, namely “AEO F – Authorized Economic Operator Full”, following completion of a 40-page list of questions. E.G.O. meets the requirements regarding reliability, financial solvency, compliance with legal regulations and security standards

and is therefore given certain privileges without the need for further customs inspection. The equivalent “Known Consignor” certificate was also re-issued by the German Federal Aviation Authority. This confirms that E.G.O. takes special measures to prevent manipulation of air freight shipments with a terrorist background in air and land transport.

A further challenge was the Union Customs Code of the European Union, which came into force on May 1, 2017 and required many adjustments, especially in connection with the tariff preferences granted by the EU.

Key performance indicators

Four important key performance indicators (KPIs) in the E.G.O. production network reveal the success of all the measures and projects implemented.

Accident rate falls

This indicates the quality of the safety measures in production and office buildings.

Quality costs at a low level

Internal quality costs include, among other things, the costs of reworking and scrapping, and the test and preventive costs. The costs are always related to the output volume from production.

Efficiency increases continuously

Assessment of efficiency relates to the output volume in production in relation to the working hours of direct employees required for it.

Gross stock at a low level

Actual storage volume in currency before depreciation.

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Our competitive environment is very challenging, particularly with regard to innovative products – there are ever more competitors and they also behave very aggressively. We have a higher speed of innovation combined with a lower depth of added value and correspondingly lower employment intensity. This means that we have to make optimal use of resources and become significantly leaner, faster and more efficient overall in order to survive in this environment in the long term. This applies to all sites in our production network and explains our success.

Dr. Karlheinz Hörsting

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The environment is our responsibility

We are not simply responding to the increasing demands of legislation with our environmental and quality management. On the contrary. It combines legal security and responsibility for the environment and society, and helps us to make the most of the opportunities associated with change. Doing business responsibly actually gives us numerous advantages! By making optimal use of resources we are able, for example, to lower costs permanently. This, in turn, leads to competitive advantages. Efficient management of resources also means that consumption of raw materials is lower overall or that secondary raw materials are used. This reduces the burden on the environment and we preserve resources for ourselves and for future generations.

For us, doing business responsibly also means using energy efficiently and turning increasingly to renewable sources of energy. In addition to materials, production technologies and processes that protect the environment, products with a long service life that are produced in an environmentally and resource-friendly manner also contribute to treating nature responsibly.

All of these efforts not only benefit the individual and the environment, but also us as a business group. We therefore monitor our products from the development departments, through production in one of the worldwide E.G.O. sites, to the production processes of our customers. Always attempting to find the best solution. In the context of ecology, but also in the context of our company and, above all, making sure that all customer requirements are taken into account as fully as possible.

Over the next few pages, we will show you how the quality and environment teams support the creation process for a product through to its delivery. You will also find some interesting examples of how we make optimal use of various resources from the ecological perspective.

WOLFGANG KICHERER
Director
Corporate Quality Management

UWE SCHNEIDER
Head of Corporate Quality Management
Support Functions



Making optimal use of resources with an integrated management system

In order to carry out the company's activities in an efficient, standardized and transparent way, E.G.O.-Group processes and workflows have been defined and documented in the Integrated Management System (IMS). All sites therefore work in line with consistent quality and environmental standards and have their own **process map**. The basis for this at each site is the process map of the E.G.O.-Group, which is complemented by site-related processes and documents.

All sites are certified –

Revision of standards fully implemented

All sites in the E.G.O.-Group are certified in accordance with ISO 9001:2015 and ISO 14001:2015. The energy management systems of the sites in Germany and Croatia also meet the ISO 50001 standard. The E.G.O. Appliance Controls, S.L.U. site in Spain carried out an energy audit in 2016 and will also be certified in accordance with ISO 50001 in future. The introduction of an energy management system in accordance with ISO 50001 is also in the pipeline for the ETA d.o.o. Cerklno site in Slovenia. The Polish site E.G.O. Polska Sp. Z.o.o. carries out regular energy audits. The revision of standards ISO 9001 Quality Management and ISO 14001 Environmental Management also brought new challenges for the E.G.O.-Group. These included, for example, defining the context of the organization, focusing on a risk-based approach and describing certain aspects in greater detail. Following successful implementation, the IMS can now be organized even more efficiently and various ISO standards can be combined with one another more easily.

Consideration of life cycle is main theme

The revised environmental standard ISO 14001 places additional focus on the life cycle of products and services. This refers to the entire product life cycle, from obtaining the raw materials, through production and use, to disposal. E.G.O. already takes this into account at an early stage of product development by considering all of the relevant stations in its review of environmental factors.

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All of the products, systems and components of E.G.O. have in common the fact that the benefits they bring correspond to or even anticipate the needs of customer companies and of those who may become customers: above all, by fulfilling the maxims of energy efficiency, quality and safety! And we are not the only ones to think that way; compliance with these criteria is also very important to our customers and to their customers in turn. We therefore look at the entire process that a product goes through. This begins with the development departments of the E.G.O.-Group and only ends with the production processes of our customers. The trick is to find a good solution that is ideal for the environment and for the company, and that takes the customer requirements into account as well.

Wolfgang Kicherer
Director Corporate Quality Management

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PROCESS MAPS

Process maps help us to see at a glance which processes are present in the company, how they fit together logically and which interfaces with customers and suppliers must be taken into particular consideration in the company.



Review of environmental factors using the example of the radiant heating element

Monitoring is carried out throughout the life cycle of the radiant heating element to identify changes in laws, standards or market circumstances and ways in which working practices can be made even more resource-friendly:

1. Procurement

Which material minimizes the burden on the environment, e.g. which band material is used to ensure that no laws or standards are breached?

2. Development

To what extent can dimensions be reduced to use as little material as possible? How can the requirements of the life cycle nevertheless be met?

Which permits do radiant heating elements require and which standards have to be applied?

3. Production

Which process requires the fewest resources and how can environmental impacts (e.g. electricity, water consumption) be reduced as far as possible?

How can the company ensure the safety of its employees?

4. Logistics

How can radiant heating elements be moved from A to B safely and in a way that saves energy?

How can radiant heating elements be packaged as effectively and cheaply as possible while saving on materials?

Can standardized packaging be (re)used?

5. Use

How can appliance manufacturers continue processing the radiant heating elements easily and cost-effectively?

How much energy do the radiant heating elements consume during the usage phase?

6. Disposal

What is the situation regarding recycling and reusability?

How long is the actual product life of a radiant heating element?

Product-related environmental protection – Significant contribution to energy efficiency

E.G.O. products characterized by high levels of energy efficiency. E.G.O. customers can produce energy-saving appliances with them that make a significant contribution to climate and environmental protection. For all E.G.O. components, products and applications, work is being carried out continuously to drive forward developments that will improve energy and resource efficiency. This is also codified in the E.G.O. quality and environmental guidelines.

E.G.O.-Group meets new energy specifications before 2019

Since the beginning of 2014 the so-called **Ecodesign Directive** has been in force in the European Union for hobs, ovens and extractor hoods. The company offers concepts for all types of heating and control that comply with the standard.

In February 2014 the European Union passed a new directive which, among other things, prescribes energy efficiency specifications for hobs for the first time. Directive 2014/66/EC is based on a defined cooking cycle in which the energy consumption of the individual cooking zones is measured. The permitted energy consumption is being introduced and regulated in three stages, so-called tiers: as of February 2015 the maximum energy consumption has been restricted to 210 Wh/kg of water per cooking zone. Since February 2017 it has come down further to 200 Wh/kg. Finally, in 2019 the third stage – Tier 3 – will be introduced, restricting the permitted energy consumption to 195 Wh/kg. There is a ban on the sale of appliances that exceed the maximum permitted values within the European Union.

Even before the Directive came into force, the Development team of the E.G.O.-Group began with a survey of all types of heating in the E.G.O. portfolio. The optimizations required were then developed and implemented by various development teams.

ECODESIGN DIRECTIVE

The Europe-wide legal framework for environmentally friendly design of products came into force in 2009. The first standard was put in place back in 2005, but it was limited to energy-using products such as electrical devices. The 2009 Directive also includes products related to energy consumption: this includes “passive” products such as insulating materials that affect energy consumption.

EGO hotplate

Traditional hotplate heating underwent the greatest optimization. Adjustments to the performance of the hotplate were required even for the first tier of the Directive and they were implemented in time for its introduction in February 2015. In order to meet the second and third tiers, optimizations had to be made to the cast body, the power distribution and the production process. These adjustments are the biggest changes since the introduction of the modern hotplate about 50 years ago.

EGOnomic

The radiant heating elements with 7-cycle control already meet the first tier of the Ecodesign Directive. However, managers had to implement adjustments to performance for the next two tiers. As changes of this sort have effects on the service life of the product, the project team then concentrated on testing the energy efficiency and service life. The result: the solution even met the third stage in full and did not affect the service life.

EGO induction

The various induction families were also put under the microscope in detail. The series of tests confirms that, in conjunction with the standard touch controls, they meet the requirements of the Directive. Some of the measurements are even significantly below the threshold for the third tier.

With the changes described above, E.G.O. is meeting the Ecodesign specifications for all of the types of heating listed and can continue to sell its products on the market without restriction.



At the 2016 Innovation Event in Berlin, E.G.O. presented concepts that meet the Ecodesign Directive.

Product packaging – standardized and environmentally friendly

With packaging, the aim is to keep the impacts on the environment and climate as small as possible. Standardization of the packaging variants is therefore being pushed forward consistently. Packaging with automatic bases simplifies handling in the production plants and for the customer. The new boxes have a push-fit closure and a pull tab for fast and easy opening by the customer.

Reusable cushions are used in the field of electronics. The CO₂-neutral, dust-free cushions filled with used cardboard are made in disabled workshops and can be reused by the recipient or simply disposed of. This saves on disposal of used cardboard and reduces plastic waste.



The packaging team of the E.G.O.-Group with the new standard boxes.

Operational environmental protection at all sites

In concrete terms, operational environmental protection means handling natural resources at the company site in a considerate and planned way. The relevant environmental factors are therefore reviewed regularly at each site of the E.G.O.-Group. Where necessary, measures to improve the environmental performance are introduced immediately – whether it's in waste management or in the areas of soil conservation, water, energy or emissions.

Waste management

Reducing waste has a positive impact on the environment both as a result of the smaller amounts of waste and because fewer resources are used. All sites are therefore working continuously to avoid waste. This is also evident from the performance indicator waste volume per productive hour. This has fallen continuously since 2013 from 1.33 kg/h to 0.94 kg/h in 2016.

E.G.O. North America, Inc., USA

In radiant heating element production at the site in North America, the insertion process has been revised to produce less waste. Excess material is treated and returned to the production process. As a result, the proportion of recycled material in the insertion mass is approx. 4%. The annual volume of waste produced has been reduced by over 40 metric tons by this measure.



At the site in North America, the annual volume of waste was reduced by 40 metric tons.

E.G.O. Componentes Electrónicos S.A. de C.V., Mexico

In electronics production, the thermal insulation on a machine for applying protective paint to printed circuit boards has been improved. As a result, it has been possible to avoid 56 kg of paint waste per week. A further 190 kg can be added to this because welding material residues from production are being processed and re-used. A distinction is also now made between electronic scrap and metallic waste.

Soil conservation

The soil is a source of life and living space for animals, plants and human beings. It stores water and CO₂, and supplies raw materials, food and areas for industry. Soil conservation is therefore particularly important for people and the environment. The E.G.O.-Group makes a contribution to soil conservation by means of many small measures, including



In Mexico, a saving of 56 kg of paint waste is being made every week by means of thermal insulation of a machine.

- at the E.G.O. site in Turkey the external diesel tank has been replaced and fitted with a cemented collecting tray.
- at the E.G.O. site in Austria the oil separator has been replaced.

Historical contamination of the soil and ground water at the Oberderdingen and Sulzfeld sites is currently classified as adequately contained. E.G.O. is continuously monitoring and optimizing progress to clean it up in close collaboration with the interested parties, such as the State Office in Karlsruhe, the local councils and residents.

Water consumption

Water is the basis of all life. It is not only essential for human, animal and plant life, it is also crucial for many industrial applications and processes.

E.G.O. Appliance Controls, S.L.U., Spain

Water consumption per productive hour fell at the Spanish site from 1.66 liters in 2015 to under 1.4 liters in 2016. This was possible because flow restrictors were installed, among other things. Since 2017 the water from washing machine tests has also been reused in the development center. It is used as process water to flush toilets.

Ideally, measures have an impact on several relevant aspects of the environment at the same time. At E.G.O. Appliance Controls, S.L.U., Spain, for example, two machines were purchased for inspection of 3D soldering paste. On the one hand, this cut consumption of soldering paste in 2016 by 45% compared to the previous year, on the other hand, the volume of waste fell. In addition, it was possible to reduce energy consumption per unit produced - with shorter cycle times and therefore higher throughput!



At the Turkish site, an external diesel tank has been replaced ▲
to conserve the soil.



In the Spanish development center, water from washing machine tests is being reused. ▲

E.G.O. Austria Elektrogeräte Ges.m.b.H., Austria

At the site in Austria, steam for cleaning insert dies in production, for example, is being produced from water that has already been heated up in production instead of fresh water. This has reduced both water and energy consumption. As a result, it has been possible to save 1,000 liters of heating oil per year.

Continuous improvement of energy efficiency

Efficient use of energy is becoming increasingly important. This has also become apparent through the so-called Energy Efficiency Directive (2012/27/EU). This directive obliges companies in the European Union to carry out energy audits or to introduce an energy management system and to have themselves certified. Regardless of certification or completion of energy audits, all of the sites are continuously working to improve their energy efficiency.

E.G.O. Components (China) Co., Ltd., China

Back in 2015 the E.G.O. China site set up a large-scale energy saving project as the basis for further improvement measures. As a result, it was possible to reduce energy consumption by over 450,000 kWh a year in 2016 by converting to energy-saving LED bulbs.

E.G.O. Elektro-Kontakt d.d., Croatia

Maintenance at the Croatian site has purchased a thermal imaging camera to make thermal energy losses visible. On the one hand, this makes it possible to investigate machines and pieces of equipment for thermal energy losses. On the other hand, potential fire hazards can be identified in this way. In addition, only 100% “green energy” from TÜV-certified hydroelectric power plants has been used in production since 2016. It has already been possible to save 2,656.3 metric tons of CO₂ emissions since 2016 as a result of the conversion to renewable energy.



The Croatian E.G.O. site has converted entirely to renewable energy. ▲



The Polish site manages almost entirely without heating thanks to energy recovery. ▲

E.G.O. Polska Sp. z o. o., Poland

A system for recovering energy has been introduced at the production site in Lodz. Energy from hot exhaust air is used to heat fresh air with heat exchangers. At the same time, the waste heat from three reflow ovens, two wave soldering systems and two pumps is being recovered. In the heating period, it is therefore possible to do without additional heating almost completely.

Reduction of emissions

Emissions that damage the environment can be released when products are manufactured. E.G.O. strives not only to meet the statutory requirements but also to keep emissions as a whole as low as possible. Along with energy consumption, transport plays an important part here. The company is continually working on reducing fuel emissions caused by goods transport. This is possible by making fewer journeys and/or switching to environmentally friendly means of transport. Emissions of hazardous substances are also being reduced continuously.



Since 2017 employees at the German site have been able to lease company bicycles – including electric ones. ▲

From A to B by electric vehicle at E.G.O. companies in Germany

The two company restaurants at the German site transport their goods between the plants and on the plant site by electric car. E.G.O. has provided works bicycles to get from A to B for some time. Since 2017 employees have also been able to lease their own company bicycle with very good terms – electric bikes are also available. This not only reduces emissions, but also improves the mobility and health of employees at the same time.

ETA d.o.o. Cerkno, Slovenia

As a result of the relocation of some of the production within the Slovenian site, transport distances have been reduced, saving just under 15 metric tons of CO₂ emissions a year. At the same time, a new extraction system has been installed which filters out and takes away the dangerous vapors released during loading, smelting and casting.



At the German site, food is transported between the plants by electric car. ▲

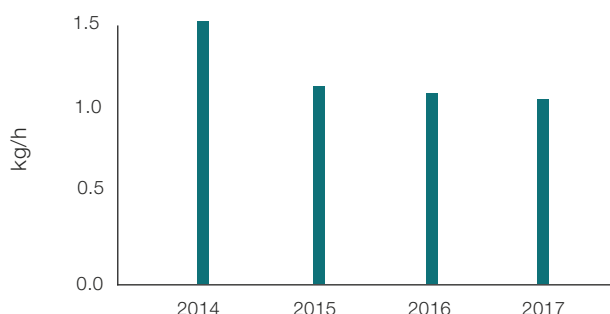
Achieving environmental targets with performance indicators

Making optimal use of resources goes beyond simply monitoring consumption figures. Key performance indicator (KPI) environmental reporting therefore has a central role in managing the environmental performance of the E.G.O.-Group. Improvement potential can be identified from the recorded data, which is fed into the global and local environmental targets. In turn, the environmental performance indicators can be used to measure how the environmental targets are being implemented and achieved.

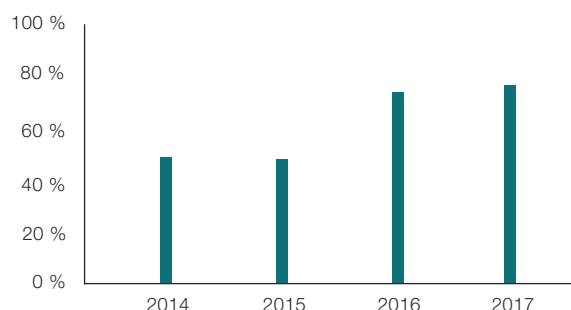
With the aid of revised KPI environmental reporting, resources can be managed actively to even better effect. It was important, above all, to improve the information value and management function of the performance indica-

tors. In 2017 a switch was therefore made from quarterly to monthly reporting. The definition of individual performance indicators was also revised in order to increase their informative value.

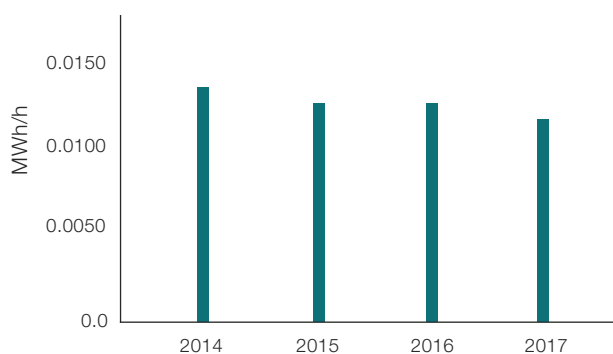
Volume of waste per productive hour



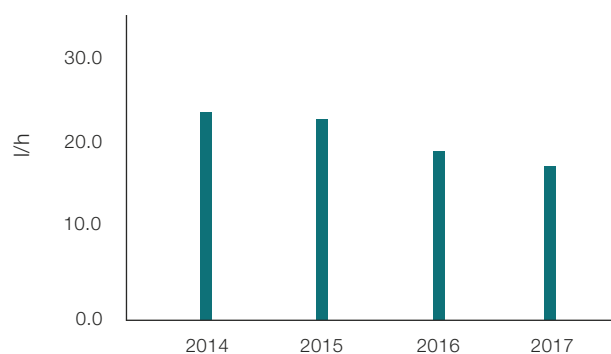
Waste: Recycling rate



Energy consumption per productive hour



Water consumption per productive hour



”

Careful and efficient use of the earth's resources is one of the most urgent issues of our age. And its importance will only increase for future generations. Responsible management is not difficult for us. All of our efforts are of benefit not only to the individual and the environment, but also to us as a corporate group.

Dr. Johannes Haupt

“



Making optimal use of resources for social engagement

Acting sustainably also means considering how a company is integrated into society. The E.G.O.-Group takes its social responsibility very seriously – even beyond its own business – and always ensures that it deploys its financial, human and organizational resources in an effective and well-directed way.

E.G.O. is particularly active in the regions around its sites. The E.G.O. companies provide support, particularly of a financial sort, to local associations and institutions and regional projects. Many E.G.O. employees throughout the world also take responsibility in their free time and are committed to the common good on a voluntary basis. In Germany, the E.G.O.-Group mainly supports social projects and institutions with donations and sponsors associations, events, institutions and projects in the fields of sport, culture, education and science.

Learning professional and life skills

As part of their training, E.G.O. apprentices at the German site spend a week working in a social institution. The young people are supported by their trainers, who have anchored this topic firmly into the company's training framework program. In the first internship week in March 2017, 14 young people set to work and were given EUR 200 each by E.G.O. to spend as they wanted on the institution they were employed in.

2,800 €

Sum donated in the framework of the social internship



The E.G.O.-Group has been the sponsor of the Oberderdingen riding tournament for many years.



Great pleasure about the intern's gifts



Raising awareness throughout Germany

Since 2017 the E.G.O.-Group has been the exclusive and talent team partner of the Karlsruher Sport Club (KSC) soccer team. The aim of our involvement is to make the E.G.O. brand better known in Germany and thus to complement our activities in creating a perception of E.G.O. as a top employer in the best possible way. For E.G.O. it was also important to set up a talent team partnership with the young soccer players, as there are many parallels with the players: from the carefully selected team of mentors and managers to the high importance attached to training for the next generation. Amateur and leisure sporting activities are an important part of E.G.O.'s commitment. The company supports clubs in Oberderdingen and the surrounding area in the fields of soccer, handball, tennis, table tennis, mini golf, dressage and showjumping, for example.

> 30,000

Exhibition pieces are part of
the E.G.O. museum

Experiencing the “entrepreneurial spirit” in the E.G.O. museum

In the company's own E.G.O. museum, there are not only some interesting exhibits from over 85 years of product history to admire, you can also sense a little of the “entrepreneurial spirit” behind them. Many of the exhibits and the 10,000 photos, 4,000 products, 15,000 pages of documents, and countless image and audio sources that are still in the archive have been collected by company employees over the years and preserved with great care. Former E.G.O. managers run the tours through the museum and, in addition to some interesting information, they also have a few anecdotes to recount.



Since 2017 the E.G.O.-Group has been the exclusive and talent team partner of the Karlsruher Sport Club (KSC). ▲

The company and its employees are also engaged socially at other E.G.O. sites

E.G.O. China: **Using old IT hardware**

Since 2016 E.G.O. Components (China) Co., Ltd. has been supporting projects run by the Taicang Qimeng IT Club, an organization that refurbishes old computer hardware and passes it on to schools in less developed areas of China. The first donation for computer rooms in primary schools was made in September 2016, when E.G.O. China handed over ten laptops to the Taicang Qimeng IT Club. 16 monitors followed in July 2017. E.G.O. China is thus killing two birds with one stone: doing something for underprivileged children and avoiding electronic waste.

E.G.O. China: **Integration of disabled people**

Since 2015 E.G.O. Components (China) Co., Ltd. has been supporting the Inclusion Factory in Taicang, an initiative of the Taicang Round Table which makes it possible

for disabled people to become integrated into the industrial world of work. The concept is based on a model set up by the German Lebenshilfe association in Offenburg. Four different assembly projects are outsourced to the Inclusion Factory at the moment and two more are planned. E.G.O. China was given the Corporate Responsibility Award for this.

E.G.O. Spain: **Plastic lids help sick children**

E.G.O. Appliance Controls, S.L.U. has been actively involved in the solidarity project of the Seur Foundation since the summer of 2017. The foundation collects plastic lids from drinks bottles, for example, sells them to recycling companies and uses the money to pay for treatment for children with rare illnesses. The companies involved receive regular information about the specific help that has been provided with the plastic lids that have been collected. In this way, the employees of E.G.O. Appliance Controls, S.L.U. reduce waste and simultaneously help children to overcome illness.



E.G.O. China regularly donates second-hand hardware to primary schools for their computer rooms. ▲



Corporate Responsibility Award for E.G.O. China's inclusion projects. ▲

Certificates and awards

An indication of how successful E.G.O.-Group has been in making optimal use of its resources is the numerous awards and prizes that the corporate group has received in 2016 and 2017 alone – for special projects involving employees, for example, and as an employer and trainer.

Top place for E.G.O. Germany as an employer

E.G.O. is among the best employers in Germany. This was the result of an extensive survey by the news magazine Focus in conjunction with the professional network Xing and the employer rating portal Kununu. Among medium-sized enterprises, E.G.O. Germany took second place in the electronics, electrical engineering and medical equipment sector in 2016 and sixth place among companies of all sizes. In the category finished goods and commodities, E.G.O. Germany made it into the best ten medium-sized enterprises. The company is in the top 100 of over 1,000 companies evaluated in 22 industries in the overall ratings across all industries.

Exemplary training at E.G.O. Austria

E.G.O. Austria Elektrogeräte Ges.m.b.H. (E.G.O. Austria) has been awarded the title of “Outstanding Tirolean Training Company” for the second time and is permitted to keep the certificate until 2018. The Tirolean Chamber of Commerce gives the award to training companies that are particularly good at developing their apprentices. There are strict standards to meet, both for the initial award and for its extension. For example, a company must have an appropriate organization and facilities and have already been training apprentices successfully over a lengthy period.



According to Focus, Xing and Kununu, E.G.O. Germany is the second best employer in Germany among medium-sized enterprises in the electronics industry. ▲



E.G.O. Austria has been awarded the title of “Outstanding Tirolean Training Company” for the second time. ▲

Seal of Excellence for training and talent management

The Deutscher Bildungspreis is an award given every year by the TÜV SÜD Academy in conjunction with the Federal Ministry for Education and Research to companies with exemplary training and talent management. In this year's competition, E.G.O. Germany won through against more than 150 other participating companies and made it into the top 3 in the "Innovation" category. E.G.O. was awarded the "Training and Talent Management" Seal of Excellence for this.

Award-winning HR management

Under the motto "I like working here – my ideal employer with a sense of responsibility", Personalmagazin and UNICUM in collaboration with the employer branding and consultancy company CSR jobs & companies presented the German Employers with a Sense of Responsibility awards for the third time. In 2016 E.G.O. Germany came in first place. In winning the CSR award, the company made an impression first and foremost with its integrated and sustainable HR management.



Gold for German E.G.O. companies for the wide-ranging measures offered in its company health management program ▲

Gold for E.G.O. health management

The GESUNDE UNTERNEHMEN (HEALTHY COMPANIES) initiative campaigns for additional measures in the area of health promotion in companies and highlights examples of good practice both regionally and throughout Germany. In 2017 the national prize for "Germany's Most Active Companies 2017" was awarded by the GESUNDE UNTERNEHMEN initiative, supported by the Federal Ministry for Economic Affairs and Energy, to the 15 best company concepts. E.G.O. won a gold award for the wide-ranging measures offered in its company health management program.

Excellent global HR work in the E.G.O.-Group

The Global HR division of the E.G.O.-Group underwent a comprehensive audit by DEKRA in 2017. The HR guidelines and the projects currently being run by the division were analyzed and evaluated in this process. The result: the E.G.O.-Group was awarded the DEKRA seal for "Excellence in Global HR Management". The leadership competence development program, in which the implementation of guidelines is checked for consistency and developed further on the ground in collaboration with local managers, was highlighted in particular.



The E.G.O.-Group was awarded the DEKRA seal for "Excellence in Global HR Management" in 2017. ▲



E.G.O. China:

Prize for summer camp

E.G.O. Components (China) Co., Ltd. (E.G.O. China) is committed to numerous projects in Chinese society. The site was given the “More than a Market Award” in the medium-sized enterprise category in June 2017 for the organization of its summer camp. “More than a Market” is an initiative of the Shanghai German Chamber of Commerce Abroad (AHK) and the Bertelsmann Foundation. It supports German companies in getting social projects up and running in China.

E.G.O. Turkey:

Third place in the Export Prize

E.G.O. Elektrikli Aletler Sanayi A.Ş. was on the winners’ podium for the prestigious Export Prize of the Turkey Association of Electrical and Electronic Service Exporters (TET) in 2016. E.G.O Elektrikli Aletler A.Ş. won the award as the third most important company in the sub-category of electronics.

Award for equal opportunities

E.G.O. Elektrikli Aletler A.Ş. Sanayi respects gender equality and ensures that there is no discrimination against women in any area. E.G.O. received first prize from the Turkish Grand National Assembly for having equal numbers of female and male employees. The prize was donated by the Commission for Equal Opportunities for Women and Men and was awarded by Prime Minister Binali Yıldırım.



“More than a Market Award” for E.G.O. China’s summer camp. ▲



E.G.O. Turkey received first prize from the Grand National Assembly for gender equality. ▲

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In the interest of the flow of the text and for ease of reading, non-gender-specific terms are used throughout. The terms 'employee', 'partner', etc. all refer equally to males and females.



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