To mark her 95th birthday, company founder Gisela Sick plants a linden tree in front of the distribution center in Buchholz, as part of the Plant-for-the-Planet campaign.

Consolidated Environmental Statemement 2017

SICK AG WALDKIRCH/REUTE/BUCHHOLZ AND SICK VERTRIEBS-GMBH DÜSSELDORF, VALIDATED ACCORDING TO REGULATION (EG) 1221/2009

SICK
Sensor Intelligence.

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Introduction

Dear readers,

They work in the background. But their influence and performance are conspicuous. Sensors are integral elements of our everyday life. Just as sensors have become an inherent part of our daily lives, in the years since our company was founded, environmental protection has become an inherent part of our corporate philosophy. Dr. Erwin Sick had a passionate concern for protecting the environment against industrial pollution, which led him to develop the first measuring device for flue gas density over 50 years ago.

The company has broken records in terms of orders received and sales for the eighth year in a row. For us, economic and ecological success are not mutually exclusive. In my new role as Environmental Management Officer at SICK AG, I am delighted that in 2017, we managed to improve our environmental performance once again.

We harness the power of technological progress and "solution systems" to minimize the negative impact on the environment and increase resource efficiency even after our products have reached our customers. Whether they are used to process wood in a manner that conserves raw materials or to map penguin colonies in the Antarctic – sensors from SICK keep the world moving while helping to protect the environment at the same time.

A constant companion to us this year was the effort to identify and implement the requirements of the new ISO 14001: 2015 standard. We are systematically putting the obligations that arise from new legislation into practice within the company and in many cases actually exceeding what is legally required. In 2017, we achieved a recycling rate of 99.6% and, by expanding the renewable energy systems installed on our roofs, we have almost doubled our photovoltaic capacity with an additional 500 kWp.

We also pushed on with various projects aiming to continuously improve our environmental performance in that year. We are particularly thrilled to have the support of the SICK family in all this, whether it be for campaigns such as the "Plant-for-the-Planet Academy" or for constructing new buildings from sustainable materials. At the start of 2017, for example, we were able to put two five-story office buildings, each with a floor area of around 4,350 m^2, into use and everything but their stairways was constructed only of wood.

In this age of climate change and scarce resources, we are aware of our corporate social responsibilities. We see even more potential just waiting to be tapped in the fields of environment and energy management, and we are convinced we will be able to make a positive contribution – that is what drives us.

Read on to find out how we here at SICK are playing our part in meeting the challenges society is facing today.

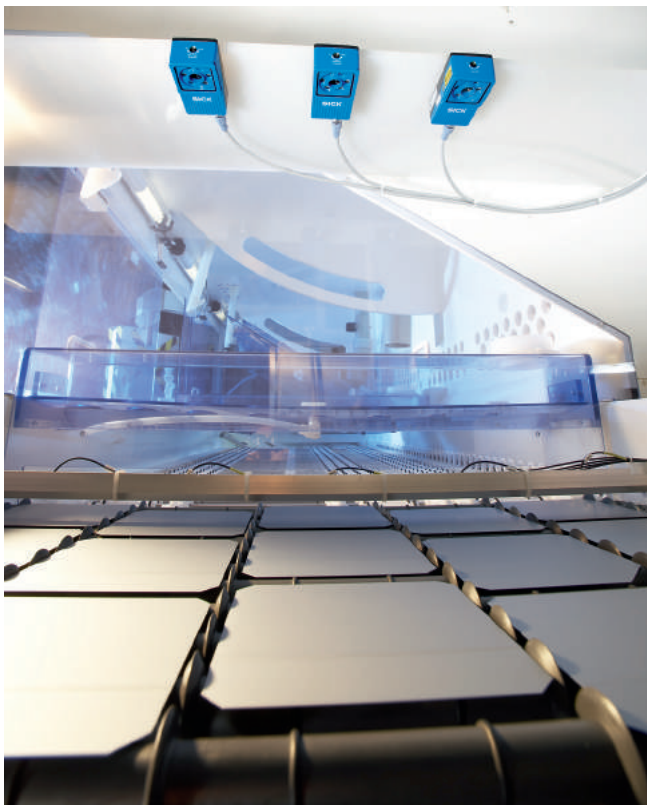
Sincerely,

Torsten Hug
Environmental and energy management representative
Member of the management board

„SICK SENSOR INTELLIGENCE.“

At SICK, sensor solutions are developed for industrial automation with commitment and experience. SICK sensors simplify procedures, optimize processes and create the prerequisites needed to achieve sustainable production. Research and development is done at countless locations worldwide for this purpose. In discussion with its customers and in cooperation with higher education institutions, SICK creates innovative sensor solutions. They are the foundation for effective and environmentally-friendly production at customer sites.

SICK’s product range is unique: it is the widest in the automation engineering industry. It is therefore the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents, and preventing environmental damage.



To identify defective solar wafers and cells as early as possible in the production process a leading Asian producer of solar cells with worldwide operations relies on the compact, user-friendly, precise Inspector PI50 vision sensor.

SICK has representation in numerous industries. Even if the processes are in different branches of the industry, the sensor tasks are nearly identical: measuring, detecting, checking and monitoring, protecting, connecting and integrating, identifying and positioning. With this overview in mind, SICK experts take successful solutions and efficient applications from one industry and carry them over into another.

For decades, SICK products, systems and services have been increasing productivity and lowering costs. SICK delivers tailor-made and intelligent solutions. Solutions which give machines the ability to see, recognize and communicate intelligently. “Intelligence based on sensors” is the core of the SICK brand.

As effective as a camera and nearly as easy to operate as a standard photoelectric sensor - these features are united in an intelligent manner in the Inspector PI50, for example. It detects faulty solar wafers and cells early on in the production process.

With over 57 subsidiaries, as well as shareholdings and specialized representative agencies, SICK has a presence right across the globe. In fiscal year 2017, 8,809 employees with a great amount of experience and dedication worked on intelligent SICK solutions. On products, systems and services which make the customer’s life easier. This is how the SICK Group achieved revenues of 1,511.5 million euros.

Factory Automation Segment

Thanks to the use of innovative technologies, the ML20 markless sensor does not require the otherwise necessary print marks when positioning labels. That means up to 5 percent of material per label and up to 1.5 million meters of label material in mass applications per year and system can be saved.

The factory automation segment is represented in many industries. In addition to the automotive industry and the consumer goods sector, these include mechanical engineering, the electronics and solar industries and drive technology. The control of production, packaging and mounting processes as well as quality assurance are the most important fields of activity here for non-contact SICK sensors and camera systems as well as encoder and distance measurement systems.

SICK makes a huge contribution to the safety of customers and consumers by protecting from product and brand piracy with special sensors which reliably detect invisible labels.

In order to reliably rule out hazards to employees on dangerous machines, safety technology products, complete systems and software solutions of the safetyPLUS series prevent possible accident risks.
With the help of bar code, 2D-code and RFID identification technology as well as volume measurement technology, internal processes are handled so that the highest end product quality is ensured and, just in case, end-to-end traceability of packaging, items or electronic components is ensured at the same time.

Logistics Automation Segment

In the logistics automation sector, the entire logistics chain is designed and optimized by automating material flows or by making sorting, picking or storage processes faster, more efficient and more reliable.

The identification and routing of airport baggage with the transport and sorter systems in airports is one of the fields in which solutions for the logistics automation segment are used. Logistics centers and countless courier, express and parcel services use bar code readers and volume measurement system from SICK in order to quickly and safely deliver millions of packages a year to the front door of the recipient.

SICK solutions in the distribution centers of well-known retail groups, clothing companies, automotive companies or specialized vehicle market chains are also responsible for consistently filling the shelves in retail stores or boutiques and for supplying dealerships and workshops with operating materials and spare parts at short notice.

Another domain of SICK logistics automation is the automation of ports. Laser scanners stand up to the test in collision avoidance of cranes as well in the positioning of containers or travel path monitoring of container transporters.

In the port of Jebel Ali, the SICK AOS system ensures collision-free, efficient container handling. The AOS system uses LMS511 and LMS111 laser scanners.

Process Automation Segment

The International Maritime Organization (IMO) is enforcing new regulations on emission avoidance. Ships may only enter emission-controlled zones and ports without penalty if they have not exceeded the defined limit values for sulfur content. The rugged, reliable MCS100E Marsic ships' emissions measuring device can continuously check compliance with the IMO standards for SO_2 CO_2 and NOx.

Within the process automation segment, SICK delivers sensors, customized system solutions and services for analysis and process measurement technology. They provide a broad product range for gas analysis to measure the concentration of a variety of substances in a gas mixture.

SICK supports its customers in the reduction of greenhouse gases by providing CO_2 measuring devices for combustion, processing and drying plants.

SICK thus provides all these products for waste incineration plants, power, steel and cement plants, oil and gas industry applications, as well as for chemical and petrochemical plants. Together, these solutions make an important contribution to protecting our environment.

In the area of dust measurement technology, SICK can precisely measure dust concentration using a variety of measurement principles, and thus help to maintain emission limits and recognize process faults in a timely fashion.

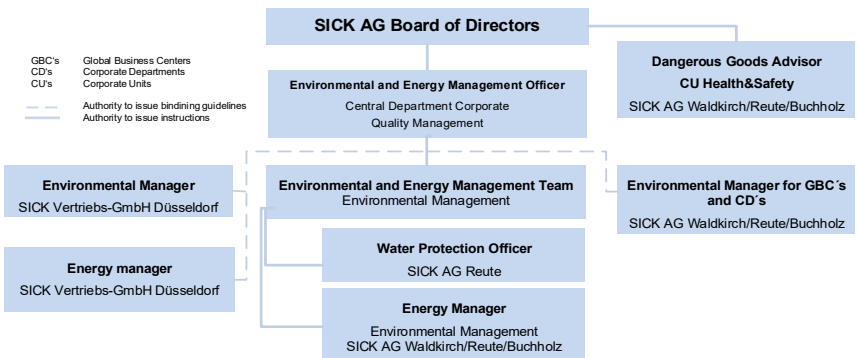
In the area of volume flow measurement, SICK sensor systems undertake a variety of tasks, for example determining the volume flow in plants, measurement of natural gas for the natural gas industry, and emission monitoring in industrial processes.

SICK ENVIRONMENTAL MANAGEMENT TEAM

The SICK AG Environmental and Energy Management team. From left to right: Svetlana Schlund, Lena Lungstrass, Kerstin Kohler (Head), Regina Hessemann and Stefan Fuchs.

In the Central Environmental and Energy Management team in Waldkirch, our experts work on protecting the environment at both an operational and a product-specific level, as well as on improving energy management. A central unit that is part of Quality Management, they draw up specifications for implementing and developing our management systems in accordance with ISO 14001, EMAS, and ISO 50001, and are the points of contact on all matters relating to environmental protection and energy management. They work in close cooperation with the environmental managers at the subsidiaries, as well as with the product-generating units (GBCs = Global Business Centers) and the central production units (CDs = Corporate Departments and CUs = Corporate Units). They manage projects centrally in order to realize environmental and energy requirements. In the interests of continuous improvement and helping to identify trends and statutory requirements at an early stage, they also share information with external partners, the IHK (German Chamber of Industry and Commerce), and other associations.

The following organigram displays the organizational Integration of environmental protection at SICK in a simplified way. Officers whom the company must appoint by law are defined here too.



ENVIRONMENTAL AND ENERGY MANAGEMENT SYSTEM

All of the SICK Group's sites in Germany and the manufacturing subsidiaries in Hungary, USA and Malaysia are certified according to the ISO 14001 environmental management system. Since 2012, the headquarters in Waldkirch, along with the Reute site and SICK Vertriebs-GmbH in Düsseldorf and, since 2016, the Buchholz site, have also been certified in accordance with EMAS (Eco Management and Audit Scheme, Regulation (EC) No. 1221/2009) and ISO 50001 (energy management).

The objective of our environment management system is to eliminate or optimize the negative environmental impacts to the greatest possible extent.

This makes it possible to consistently implement the company business principles described in the quality and environmental policy in the entire company.
An additional basis for minimizing the negative environmental impacts is the evaluation of all the processes, activities and services which are relevant to the environment (environmental aspects). In the framework of the environmental aspects evaluation, assessments of risks caused by possible malfunctions. (e.g. handling chemical products and water pollutants) are created. Appropriate technical and organizational measures are defined and updated regularly.

Drills for emergency situations and environmental protection training takes place on a regular and as-needed basis.

Assured compliance with the legislative environmental provisions and careful observation of any changes goes without saying for SICK. An interdisciplinary committee of experts examines new and changed legislative and standardized regulations for their relevance to the SICK Group and advises the relevant areas on the necessary steps for implementation. Legislation passed at European, national, and regional level is all relevant to SICK AG; from laws covering waste, energy management, the prevention of water pollution, and immission protection through to directives on banned substances such as the EU REACH regulation (on chemicals) or the RoHS directive that restricts the use of certain hazardous substances in electrical and electronic equipment.

In addition, environmental audits, open, direct dialog with the relevant authorities and the general public, and involvement in external expert committees ensure conformity with standards.

The environmental policy, the changes to the legal framework, and the results of the annual environmental aspects evaluation form the basis for the adoption of environmental objectives that are then used to define the detailed environmental program.

Environmental management is a component of SPM (SICK Process Management) and is integrated into the document control system of the same name. The conception, introduction and ongoing development of the management system involves the preparation of strategic guidelines together with the executive board, which are decisive for environmentally friendly and responsible actions at all levels of the Group.

Internal and external audits ensure that the defined system is successfully implemented and actively practiced. A management review to evaluate the system's effectiveness is performed by upper management on an annual basis.

Upgrading to (EU) Regulation 2017/1505

The SICK environmental management system was upgraded to reflect the updated EU Regulation 2017/1505, which also covers the ISO 14001:2015 standard, as part of a project involving all sites. A project team with members from all units and sites worked out what changes the revised regulation meant for SICK. Those changes were then implemented, independent consultants provided expert advice, and internal efficiency audits were conducted to ensure the upgrade successfully passed its certification process. The major changes relate to the life cycle of our products, the interested parties, risks, and opportunities, and will be explained in more detail in the next environmental statement.

THE SICK ENVIRONMENTAL POLICY

The SICK environmental policy is anchored in a document together with the quality policy and applies throughout the Group. It is part of company policy and provides the framework for defining and evaluating quality, environmental and energy goals. With its environmental policy, SICK has committed to exceeding the legal standards. The climate and environmental management system is built upon this.

SICK

Quality & Environmental Policy
SICK Group

- The **CUSTOMER** is the focus of our efforts. We anticipate their needs early and develop innovative solutions with personal commitment and technical competence. To accomplish this we cultivate long-term relationships with suppliers and customers.
- The **QUALITY of our PRODUCTS** and services sustainably ensures our economic success and with it our company's independence. Zero-defect objectives and continuous improvement efforts are fundamental to our quality management system.
- Our **EMPLOYEES** are central to the successful achievement of our goals. Continuous training and education are prerequisites to the high levels of motivation and expertise of our employees.
- We are aware of our special responsibility for the **ENVIRONMENT**. Therefore, it is a matter of course for us to comply with applicable environmental legislation.
- Furthermore, we are committed to the **SUSTAINABLE** protection of the environment. By this we mean, in particular, the economical use of resources (raw materials, energy, and water), the minimization of environmental emissions, the development of environmentally friendly and energy-saving products as well as the development of products that make a positive contribution to environmental protection due to their function. Energy efficiency is thereby an essential element for sustainable environmental protection; therefore, we constantly aim to improve it.
- We invest all necessary resources for the **IMPLEMENTATION** of our quality and environmental policy.

SICK AG
Dr. Robert Bauer
Chairman of the Executive Board

SICK AG
ppa.
Roland Schiller
Management Board Corporate Quality Management

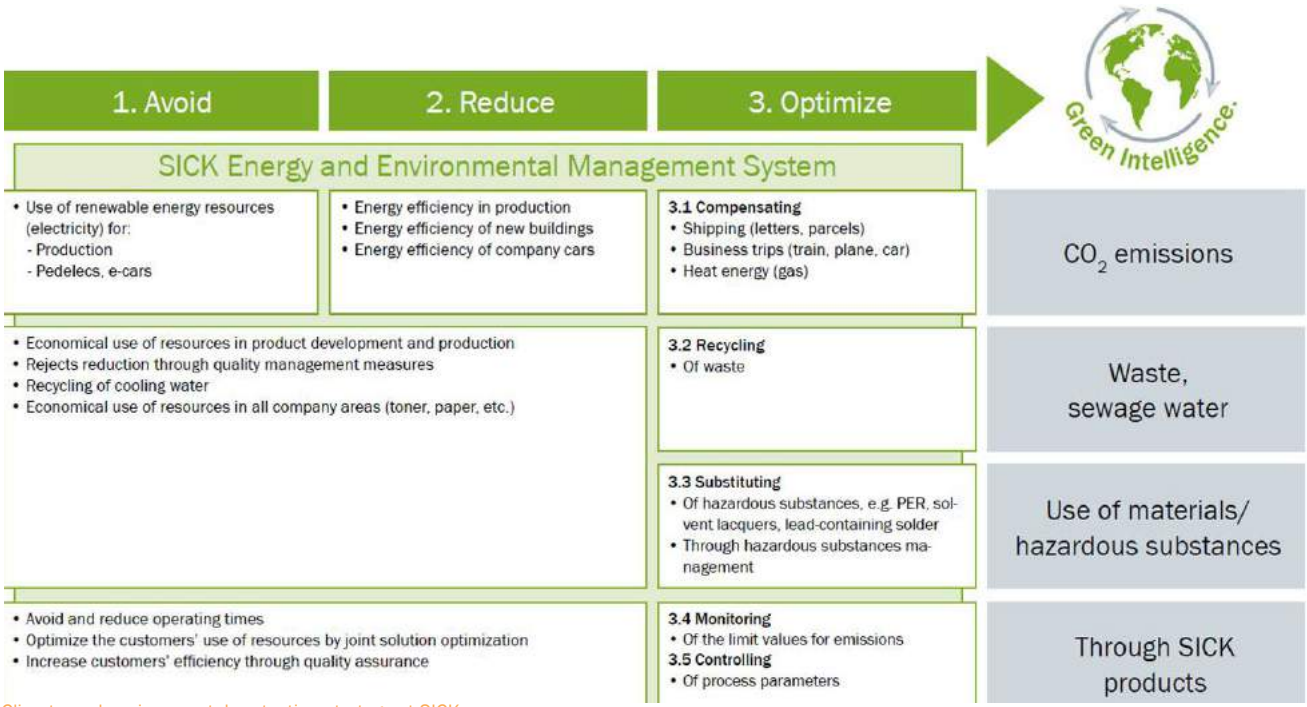
Quality and Environmental Policies of the SICK Group

SICK CLIMATE AND ENVIRONMENTAL PROTECTION STRATEGY

The environmental and energy management system firmly anchored in the company for years is the foundation for the SICK climate and environmental strategy. This is the principle it lives by: SICK wants to eliminate the environmental effects which result from its products and processes or keep them as low as possible using the means available. This involves a three-stage process:

1. AVOIDING what can be avoided.
2. REDUCING what cannot be avoided.
3. OPTIMIZING what cannot be reduced.

The focus here is on the four spheres of activity: CO_2 emissions, waste and wastewater, material usage, and usage of SICK products at customer sites. SICK achieves these defined environmental objectives by implementing projects in a wide range of divisions as part of the three points that are defined in the climate and environmental protection strategy.



Climate and environmental protection strategy at SICK

GREEN INTELLIGENCE.
Sustainable behavior is the prerequisite for economic success. Company founder Dr. Erwin Sick was convinced of this. This responsibility for future generations has remained with us up to the present time. That is why active climate and environmental protection management is firmly established at SICK. Connecting sustainability and growth in harmony, we think that's intelligent. both today and in years to come.

THE SICK CLIMATE PROTECTION PROJECT

SICK
Sensor Intelligence.

Zertifikat

für eingesparte Treibhausgasemissionen zum Klimaschutz

nachdenken • klimabewusst reisen
atmosfair

SICK spart mit atmosfair 16.000 t CO_2 ein. Dies entspricht der berechneten Klimawirkung der voraussichtlichen Dienstreisen (Flug, Bahn, Auto) sowie des voraussichtlichen Wärmeverbrauchs im Jahr 2017 für alle SICK-Standorte in Deutschland.

SICK AG Waldkirch, Reute, Meersburg und Hamburg, SICK Vertriebs GmbH Düsseldorf, SICK Engineering GmbH Dresden, SICK STEGMANN GmbH Donaueschingen

SICK unterstützt folgende Projekte:

Ruanda: Effiziente Brennholzkocher (PoA 6207)
Sick finanziert Save80 Kocher, mit denen bis zu 80% Brennholz gegenüber herkömmlichen Drei-Steine-Feuern eingespart werden können. Das spezielle Design und die Konstruktion des effizienten Brennholzkochers schützt durch geringe Emissionen nicht nur die Umwelt, sondern auch die Gesundheit der Menschen.

Äthiopien: Photovoltaik für Haushalte
Sick unterstützt in Äthiopien den Vertrieb von hochwertigen, langlebigen Solar Home Systemen. Mit einer Leistung von 10 Watt können bis zu vier Lampen betrieben werden. Gleichzeitig können noch weitere Endgeräte, wie beispielsweise Mobiltelefone durch das System aufgeladen werden. So ist eine Stromversorgung auf Basis erneuerbarer Energien möglich.

Qualitätsstandard
Das Klimaschutzprojekt wird nach den im Kyotoprotokoll verankerten Regeln des Clean Development Mechanism (CDM) und zusätzlich dem "Gold-Standard" der internationalen Umweltorganisationen durchgeführt und von dafür zugelassenen Organisationen kontrolliert.

Unter www.atmosfair.de finden Sie die aktuellen Klimaschutzprojekte.

United Nations
Framework Convention on
Climate Change

Gold Standard
Climate Security & Sustainable Development

Berlin, Juni 2017

Unsere Garantie
atmosfair verpflichtet sich, die mit Ihrem Beitrag erbrachten Emissionsreduktionen aus den genannten Klimaschutzprojekten von den zuständigen Kontrollorganen zertifizieren zu lassen und die Zertifikate im offiziellen Register der Bundesrepublik Deutschland beim Umweltbundesamt für immer stillzulegen. Damit erbringt atmosfair den formellen Nachweis, dass die eingesparten Emissionen nicht mehr in die Atmosphäre gelangen und auch von keinem anderen Akteur mehr verwendet werden können.

SICK climate protection project 2017 certificate

CO_2 emissions which cannot be avoided or reduced are compensated for in collaboration with non-profit organization Atmosfair. Compensation is done by means of SICK's own ecological and social climate protection project. All CO_2 emissions created by the use of thermal energy and business trips (trains, car travels, flights) in Germany are compensated for in this project. In the framework of this project, fuel-efficient wood stoves are made available in Rwanda, which cut down on the amount of firewood used by 80 percent. This creases savings of 4t CO_2 per stove per year. Furthermore, solar home systems are made available in Ethiopia. These photovoltaic modules have an output of 10 watts, can run up to four lights and save about 0.3t CO_2 per system per year.

SICK PRODUCTS THAT HELP TO BUILD EFFICIENT AND SUSTAINABLE PROCESSES

SUSTAINABILITY DRIVES INNOVATIONS

SICK doesn't just offer products – it also offers the expertise and high standards required for these products to make a valuable contribution to protecting the environment on a worldwide scale. In this respect, it's the countless little ideas and developments that arise from working closely with our customers to come up with solutions in different applications that really make a difference. These innovations serve to show the many possibilities offered by sensors in production processes alone when it comes to sustainability.

Optimizing manufacturing processes in the steel industry

When it comes to achieving climate protection objectives or making fundamental improvements to our operational performance, there are many aspects to analyze and evaluate. The approaches to this are particularly wide-ranging within the manufacturing industry.

In the steel industry, it's not simply a question of reducing emissions. The efficient use of energy, materials and substances, water consumption or rising waste and wastewater all provide scope for economic opportunities. With SICK sensor technology, rod, wire or carrier waste can be minimized in rolling mills, for example, which reduces scrap. Through the combination of flow and speed measurement for monitoring and controlling main valves, SICK sensors can also optimize the electrical energy consumption of off-gas systems. Exhaust gas analysis at the electric arc furnace in which the steel scrap is melted down optimizes the melting process. SICK sensors carry out measurement tasks here with hot or cold extraction processes.

Motor feedback systems for controlled drives

Market research conducted by Quest TechnoMarketing suggests that the use of electronic – particularly controlled – drives in machines will increase significantly until 2016. In addition to a rise in functionality, the higher levels of energy efficiency associated with controlled electronic drives in particular is a key factor for this trend. With today's energy prices, the potential savings to be made by using controlled drives and efficient motors can generally be seen in under two years – and in most cases significantly earlier. The effects on the environment are positive: Savings of 135 billion kWh and 63 million tons of carbon dioxide (CO_2) are expected across the EU by the year 2020 as a result of using more efficient electric motors. SICK plays an active role in supporting this positive development with its motor feedback systems, which are specially adapted to suit synchronous motors.

Optimum energy generation

Wind power plants are now an integral part of a sustainable energy management strategy. Here, it is the sensors' job to finely adjust the plant's individual components in such a way as to allow the wind to be used as effectively as possible and to generate a maximum amount of energy. The rotor blades in wind power plants have to be adjusted based on the strength of the wind, as this enables the plant to achieve an optimum level of efficiency. This adjustment is made by absolute encoders with magnetic scanning from SICK, for instance.

The more than 20,000 SICK encoders installed in wind power plants clearly demonstrate the expertise in this sector.

MADE-TO-MEASURE CLIMATE PROTECTION

Wood processing with programmable 2D Cameras

Industrial image processing is demanding: Long ranges, high resolutions, and short exposure times are just some of the demands faced by the cameras. The InspectorP65x programmable 2D camera ffortlessly masters these challenges: The camera is the ideal solution for demanding automation tasks. Intelligent software tools, powerful, programmable devices, and a dynamic developers community form the basis for individual sensor solutions that enable completely new and adaptive automation approaches, e. g., in wood processing.

From the forest to the wall unit - and always perfectly fitted!

Furniture without chipboard panels is almost inconceivable nowadays. The majority of European wood-based products involve chipboard. Program mable camera solutions from SICK ensure a perfect cut and economical use of the wood, a valuable raw material. This protects forests and contributes towards climate protection.

The furniture industry underwent a revolution during the early 1930s: Max Himmelheber, a carpenter's son living in Karlsruhe, developed a stable compressed and glued board made of wood shavings. Before the invention of chipboard only about 40 percent of the wood mass cut down could be used for making furniture.

Industrial wood processing has been running in top gear since then – in Austria too, for example: The Fritz EGGER GmbH & Co. OG chipboard plant in Unterradlberg (in St. Pölten) processes about three million cubic meters of wood per year to make almost 40 million square meters of chipboard. First, the wood shavings are compressed in the forming and press line of the raw panel production plant to make continuous board. Then a programmed multi-diagonal saw cuts out the individual raw panels. Whereby the SicoCam inline board measuring system from Siempelkamp Logistics & Service GmbH provides the data for accurate cutting. The system determines board length and width, and it calculates the diagonals and the angles at the four corners. This optimizes trimming and cross-cutting, minimizing waste. “The board measurement system is located within the machinery, and the saw can be corrected immediately after any dimensional deviations occur,” explains Martin Hinterhofer from the technology department at Fritz EGGER. “The plant allows us to rapidly react to process changes and ensure the quality of the finished products.” In addition to optimization of the wood yield, increased safety plays an important role. Now, the chipboard panels no longer have to be manually measured within the hazardous space of the plant, considerably increasing safety at work.

PRECISE IMAGING LEADS TO PRECISE CUTTING

The individual panels obtained from the continuous board are measured on a conveyor belt moving at a maximum speed of four meters per second. For this purpose, four InspectorP65x programmable 2D cameras from SICK are mounted on the mobile SicoCam portal above the belt.

They have an adjustment accuracy in the 0.01 millimeter range. A W12-2 Laser small photoelectric sensor detects the front of the panels and triggers the cameras. “The software s the heart of our system,” explains Dr. Frank Otto, Project Manager at Siempelkamp Logistics & Service GmbH. “Nevertheless, the hardware must also fulfill certain prerequisites. The exposure works in the microsecond range and the cameras are very good here. They generate razor-sharp images despite the high belt speed.” In optoelectronics, and particularly in image processing, configurable products often come up against their limits when the implementation of individual functions is involved. The SICK AppSpace eco- system provides greater scope here for developing customized apps for programmable cameras and optical sensors. Measurement of the panel geometry at the Fritz EGGER chipboard plant requires, for example, height compensation because the panels are under tension after pressing – which can lead to bulges. The SicoCam system balances out these height differences during measurement, using an appropriately programmed app created on the basis of SICK AppSpace. The inline measuring system from Siempelkamp already today ensures that there is considerably less wood waste in raw panel production at Fritz EGGER. If this example sets a precedent, one tree or another could be standing in the forest for a while longer – before starting its second career as a piece of furniture.

The Fritz EGGER plant produces 40 million square meters of chipboard panels per year.

MAPPING PENGUIN COLONIES

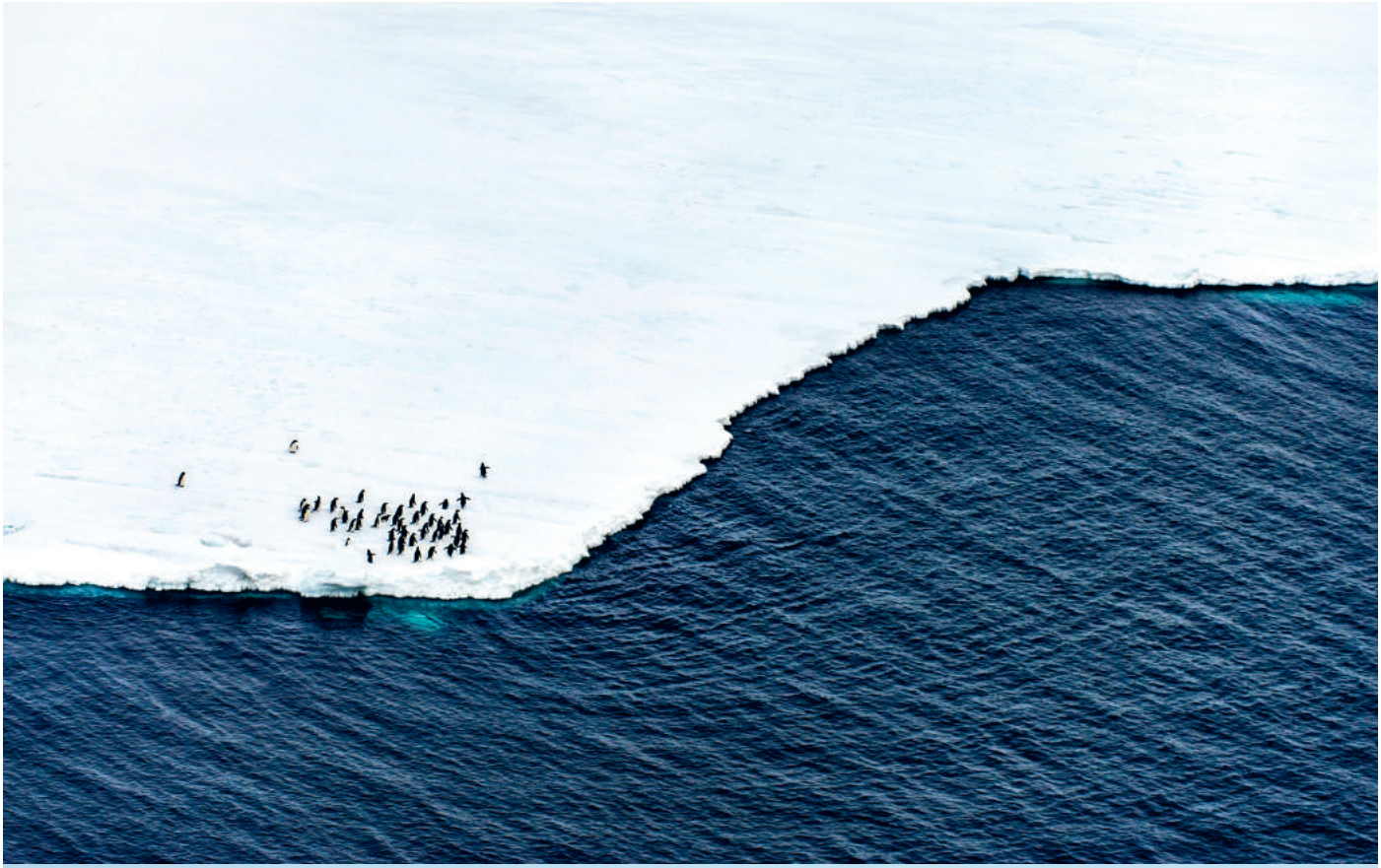
IN ETERNAL ICE

The climate is changing, it is getting warmer. Will the eternal ice soon become just a stormy sea? How many penguins will then fit on an ice floe? Researchers are seeking answers to the effects of climate change. They count and observe the animals in their elegant black tailcoats. LiDAR sensors are helping them maintain an overview.

They hover over the Antarctic on board drones – powerful LD-MRS 3D LiDAR sensors from SICK. The combination of LiDAR sensor and aerial robotics is a very welcome new technology for the researchers and scientists who are mapping and counting penguin colonies. It helps them obtain urgently required information on the effects of climate change. The sensor completely captures its surroundings. Integrated object tracking reduces the counting time for large population areas from several weeks to a few hours.

Normally, the darker the object, the more difficult it is to detect with increasing distance. But the penguins can keep their black tailcoats on. As the working range of the LD-MRS is 300 meters, the LiDAR sensor can still detect even jet-black objects, like the backs of penguins, from a distance of 50 meters. So the sensor can keep its distance, leaving the penguins undisturbed while still being near enough for reliable measurement results.

3D LiDAR sensors detect their surroundings almost entirely, regardless of whether objects are moving or not. Despite its light design, the LD-MRS LiDAR sensor from SICK on board a drone has a very large working range of 300 meters.



WIN-CHARTER

WIN-charter

SICK AG is among the first 38 signatories of a charter for sustainability in the state of Baden-Württemberg. With the so-called WIN charter (WIN stands for economic sustainability) signed in 2014, the signatories committed to economically-, ecologically-, and socially-sustainable behavior in their companies. From the 12 guiding principle which cover the aspects of sustainability, each company could pick those which they most wanted to follow in the next year.

For 2017, the SICK AG sustainability strategy focused on the guiding principles of “Energy and emissions” and “Regional added value”:

1. We use renewable energy and lower greenhouse gas emissions in line with objectives or offset them with climate-neutral measures. Again in 2017, we made it our aim to continually pursue measures and continuously increase our efforts in the field of energy efficiency.
2. We have an all-embracing company philosophy, quite in line with the ideals of our founder, which focuses on people above all else. We want to extend this approach beyond the firm’s walls by investing in the region, thus enabling local communities to share in the company’s success.

The company is also committed to supporting a project which is consistent with these guiding principles; again in 2017, SICK funded the “Experiments with Renewable Energy” project run by Fesa e.V. This program saw experiments concentrating on climate change conducted at a total of four primary schools, one high school, and one youth center in 2017. Once the students have gained an insight into the topics of climate change and climate protection, they go on to find out about various different types of renewable energy. The experiments help them understand how solar cells, wind power plants, and biomass facilities work. At the end of the teaching unit, each student can take home what they have produced, which included a homemade biogas plant (see photo at the bottom right), so they can continue to get to grips with these important issues.

Project Title: „Experiments with Renewable Energy“ of fesa e.V. Foto: Britta Geniaux

Children of grade 4a admire the functioning of their selfmade mini Biogas facilities. Foto: Britta Geniaux

PLANT-FOR-THE-PLANET ACADEMY AT SICK

Children plant trees to protect the climate in Waldkirch

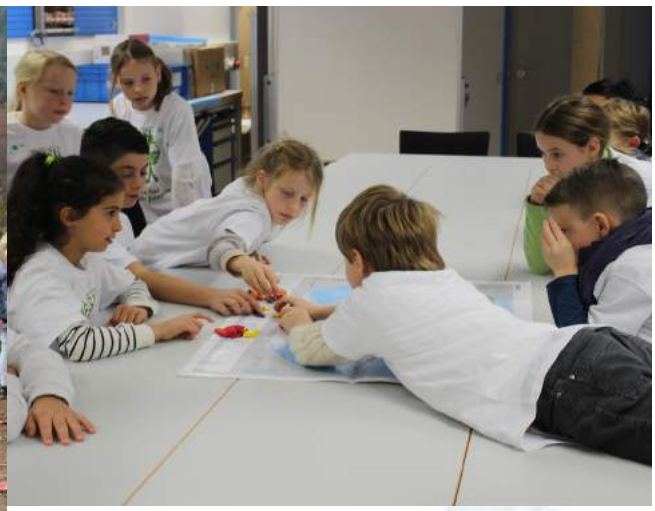
On November 18, 2017, the children's and youth initiative Plant-for-the-Planet held a campaign day at SICK. Children between the ages of eight and 14 were invited to consider the causes and effects of climate change and were trained up to become Climate Justice Ambassadors.

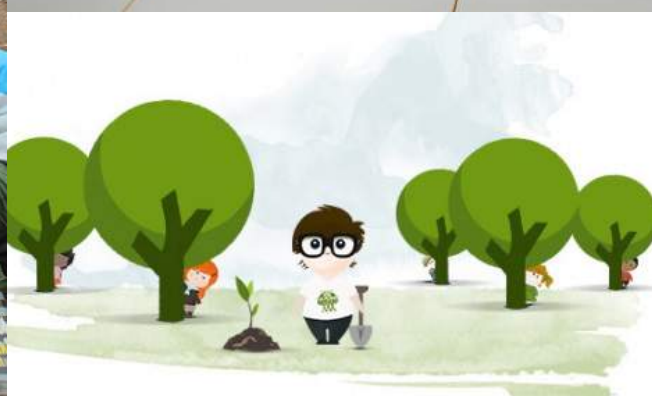
Together with the founder of the initiative Felix Finkbeiner, the children planted trees and bushes at our distribution center in Buchholz. They were then appointed Climate Justice Ambassadors and given the task of spreading the word about the idea behind the Plant-for-the-Planet initiative to their schools, families, and communities in their own unique way.

About the „Plant-for-the-Planet" student initiative

The Plant-for-the-Planet initiative was created back in 2007 by Felix Finkbeiner, who at that time was nine years old. After writing a report on the climate crisis facing the world, Felix outlined his vision of having children plant a million trees in every country on Earth to balance out CO_2 levels. Today, over 100,000 children in more than 100 nations give talks advocating for climate justice and an overall reduction in CO_2 emissions. Since the project started, these and many other children have planted more than 14 billion trees. Prince Albert II of Monaco and Klaus Töpfer are patrons of the children's and youth initiative.

More information is available here: https://www.plant-for-the-planet.org/de/startseite





PORTRAIT SICK AG

Waldkirch headquarters

79183 Waldkirch, Erwin-Sick-Str.1

Employees in 2016

Waldkirch: 2375

Site description

The Waldkirch site, covering an area of 86,801 m^2, is located in the Unterfelder-Peterskirchle industrial estate near the B294. The property was historically used for agricultural purposes.

Waldkirch headquarters

Reute plant

79276 Reute, Nimburger Str. 11

Employees in 2016

Reute: 756

Site description

The Reute site is located in the Hundslache industrial estate, less than 1 km from the A5 and covers 17,293 m^2. The property was historically used for agricultural purposes.

Reute plant

Buchholz distribiution centre

79183 Waldkirch, Gerbermatte 1

Employees in 2016

Buchholz: 102

Site description

The site of the new distribution center is in the municipality of Buchholz near the B294 and covers 43,568 m^2. The property was historically used for agricultural purposes.

Buchholz distribiution centre

FROM PRODUCT DEVELOPMENT TO THE CUSTOMER

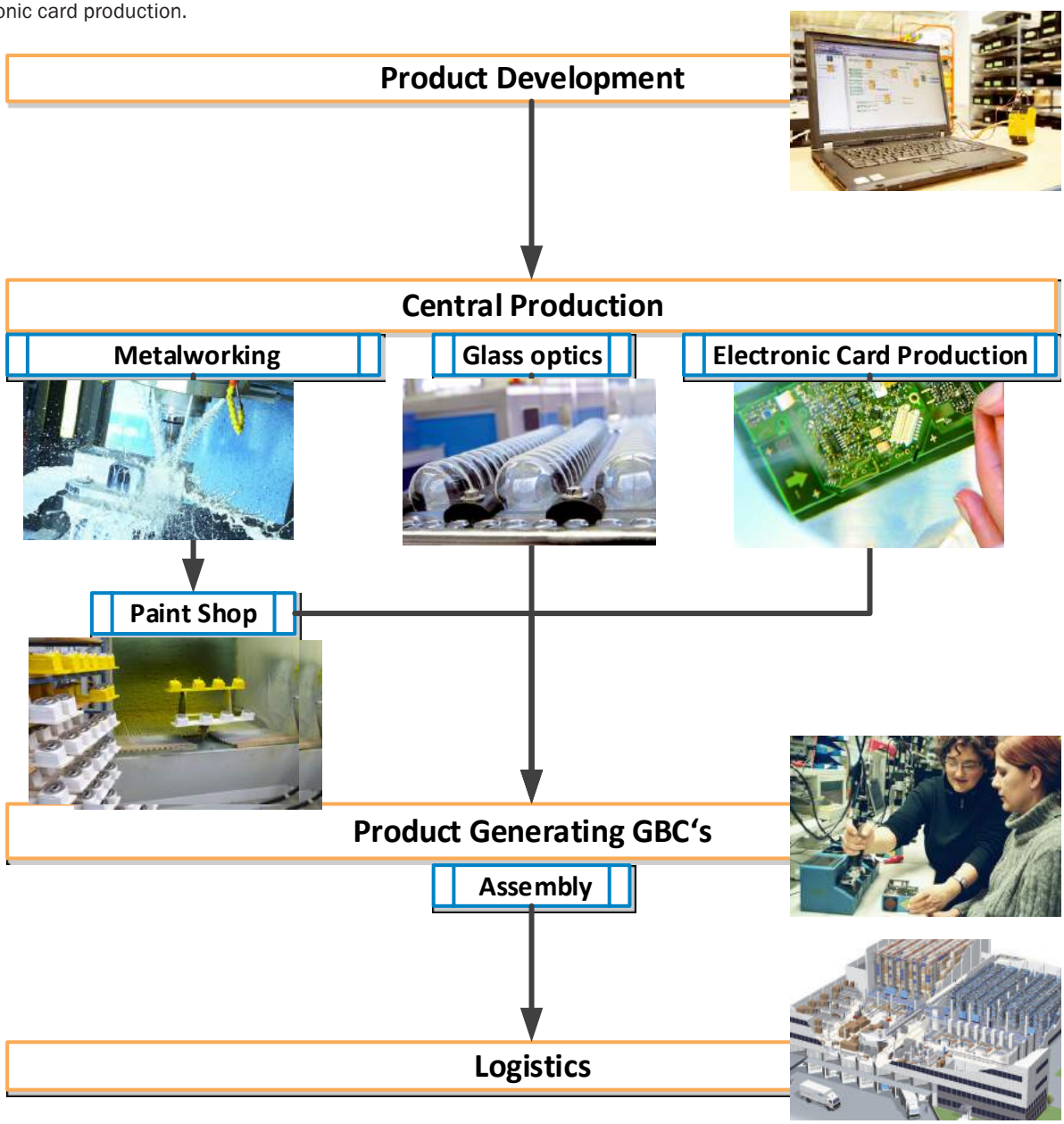
Processes in Waldkirch and Reute

Besides the indirect units (Human Resources, Marketing, Development, Purchasing, etc.), central production and the assembly processes of the product-generating divisions are also located at the Waldkirch site. There are product generating divisions at the Reute site, and since October 2014, part of central production has been there as well. The logistics center is located at the Buchholz site.

Central production includes mechanical metal working including rapid prototyping, the paint shop, glass optics as well as electronic card production.

The **product-generating divisions** assemble prefabricated modules into end products. The divisions are supplied by central production. After mounting, the finished end products are shipped to customers via the Waldkirch logistics center.

The **logistics center** in Bchholz is the central logistics unit of SICK AG. All of the goods flows stream through the logistics center, from procurement through to warehousing, storage, production and distribution.



PRODUCT DEVELOPMENT

The product development process that takes place in Waldkirch and Reute forms the basis for the use of environmentally compatible materials and production processes. The product development process follows a set procedure. One component of this process is the evaluation of ecological aspects based on a checklist. The evaluation is performed for every development project. For example, a set specification is that, since May 2006, SICK has exclusively developed RoHS-compliant products. The use of lead, chromium VI, mercury, cadmium and certain brominated flame retardants (PBB and PBDE) have been avoided in order to comply with the limit values of the RoHS directive.

L4 safety software design

CENTRAL PRODUCTION

Great importance is placed on the advance quality planning approach in central production. The development concepts are evaluated concerning feasibility and rational production and appropriate test concepts are created, thereby ensuring resource-saving production. This creates satisfied customers and optimized processes.

Metal working

One of the first steps in the development process for a SICK product is the mechanical processing of semi-finished products, extruded profiles, cast parts made of aluminum alloys and stainless steel, or, more rarely, steel or plastic. The CNC-controlled machining centers (turning and milling, drilling, grinding, barrel finishing, sand-blasting, etc.) are constantly examined for their environmental and occupational safety aspects and regularly maintained. Water-miscible cooling lubricants (CL) are used under controlled conditions with careful monitoring, which ensures need-based CL change. All machines used for series production are encapsulated and extraction is done with electrostatic collectors. Chips created during machining are collected according to type and supplied for reuse in a nearly dry state through the use of a chip press. CNC machining has been done in Reute since fall of 2014.

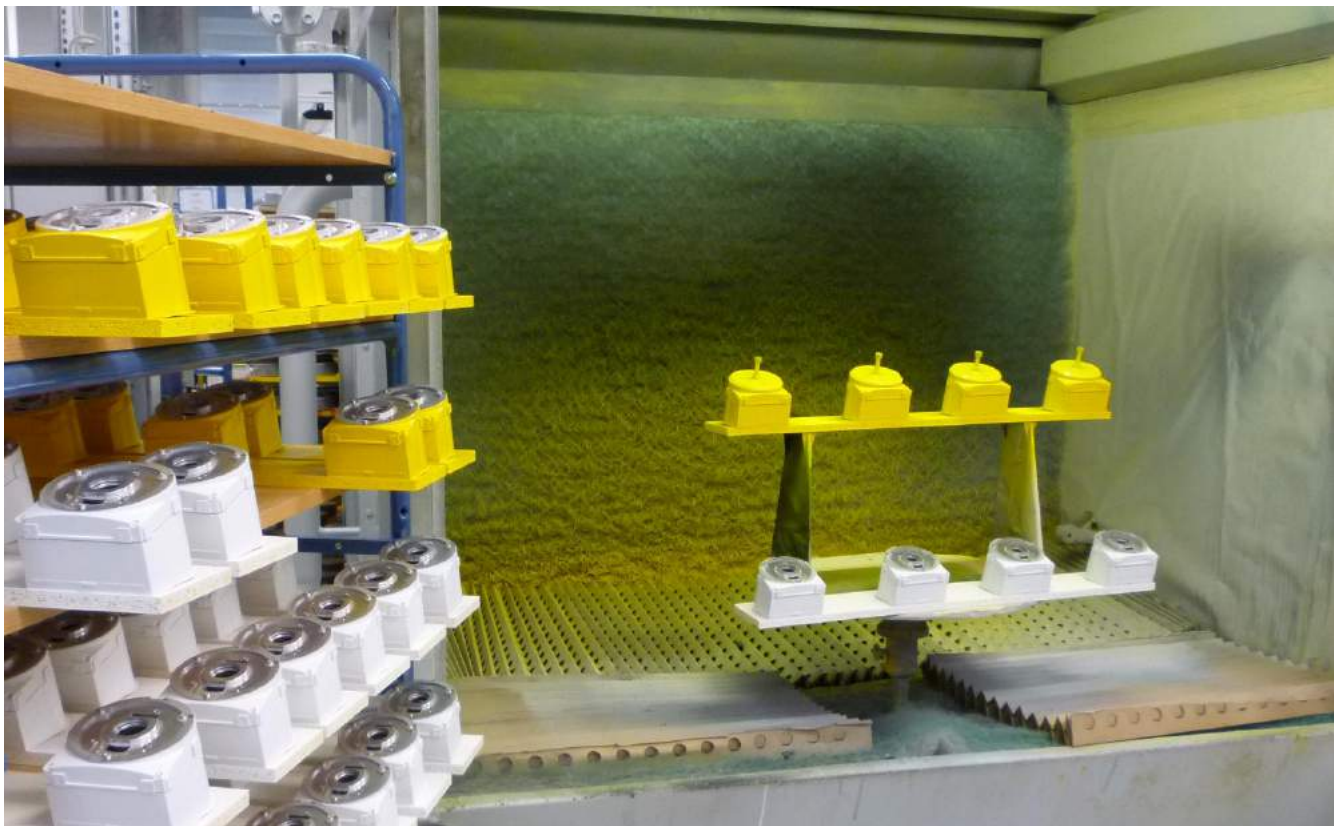
Milling with cooling lubricants

Paint shop

A dehumidification unit dries the water-based paints used in our paint shop at 40 °C instead of 73 °C in a tunnel oven, which is more good news for the environment. The paint shop has been located in Reute since the end of 2014.

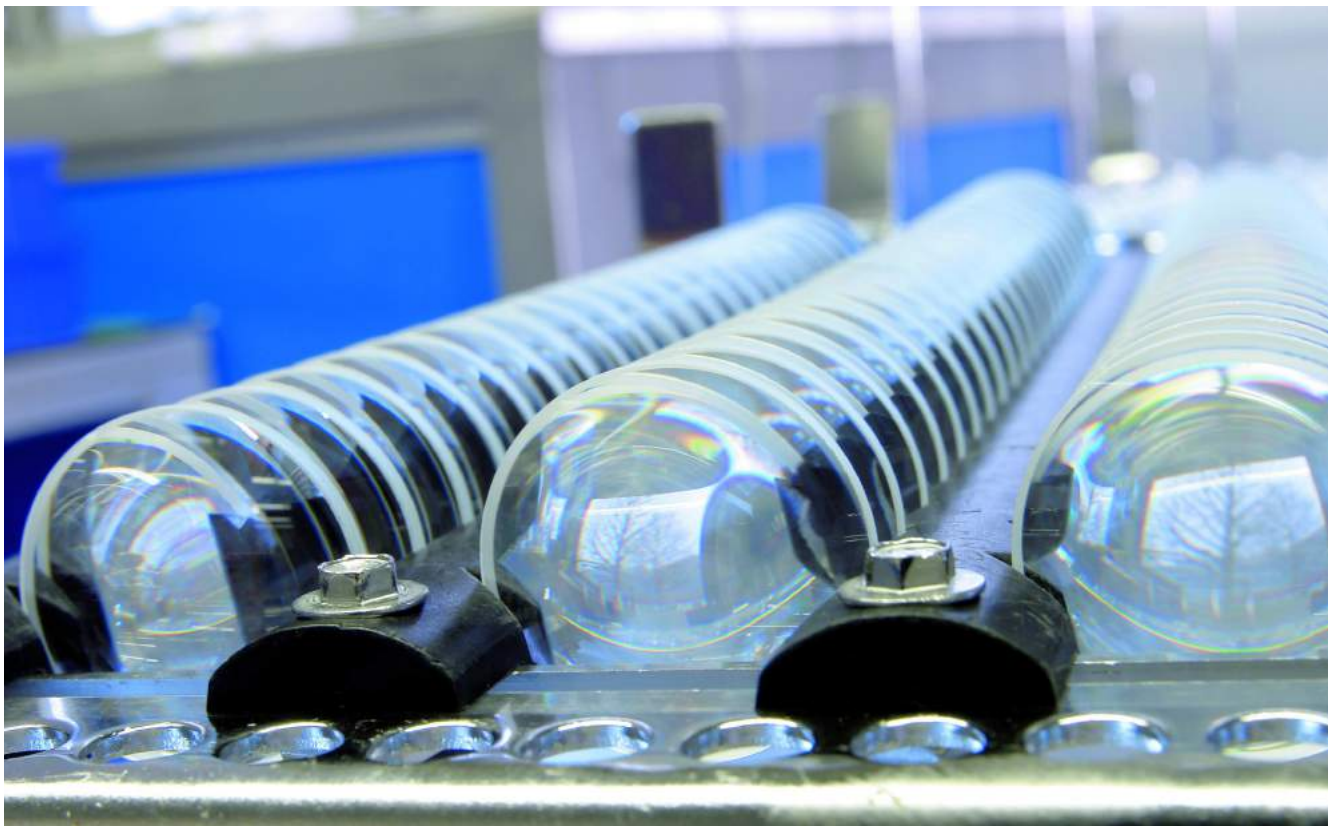
Solvent-based coating systems are also used in the paint shop. Painting processes must adhere to the limits given in the 31st German Federal Immission Protection Ordinance (BImSchV). The limit values are monitored annually based on a solvent balance. SICK has firmly established the substitution of paint in its environment program in order to minimize the emission of solvents into the atmosphere. We have already replaced solvent-based paints with water-based ones in some cases, and are planning more substitutions.

Where the four main colors of blue, black, orange, and yellow are painted by hand, we have already switched over to water-based paints. Our extended workbenches use water-based paints on our products too. The color yellow is an exception, although the relevant machines are having their technology upgraded to facilitate this.



Paint booth - yellow painted housing

Glass optics



Precision engineering / Optics

Lenses for SICK sensors have also been produced at the Reute site since the fall of 2014. This requires a great deal of sensitivity and experience. The individual steps, such as cutting, shaping, cleaning and vapor deposition, are performed by highly qualified specialists. The auxiliary and operating materials used (emulsions, cleaning surfactants, solvents) are carefully monitored. The disposal of accumulating waste fractions and waste water is carried out and monitored properly. Waste water is generated from the grinding and cleaning processes. The waste water from the grinding process is led into a wastewater treatment plant through settling tanks and conducted into the sewerage system pursuant to water provisions in line with the permit. The sedimented glass abrasive slurry created during the treatment process is disposed of properly.
The lenses are cleaned using ultrasound in an alkaline cleaning agent. The waste water created by this process is also led into the wastewater treatment plant, is neutralized there and is then conducted into the sewerage system pursuant to water provisions in line with the permit.

A part of the lenses are cleaned with organic solvents. The cleaning process is within the scope of the 31st German Federal Immission Protection Ordinance (BImSchV). Compliance with the limit values is monitored based on a solvent balance.

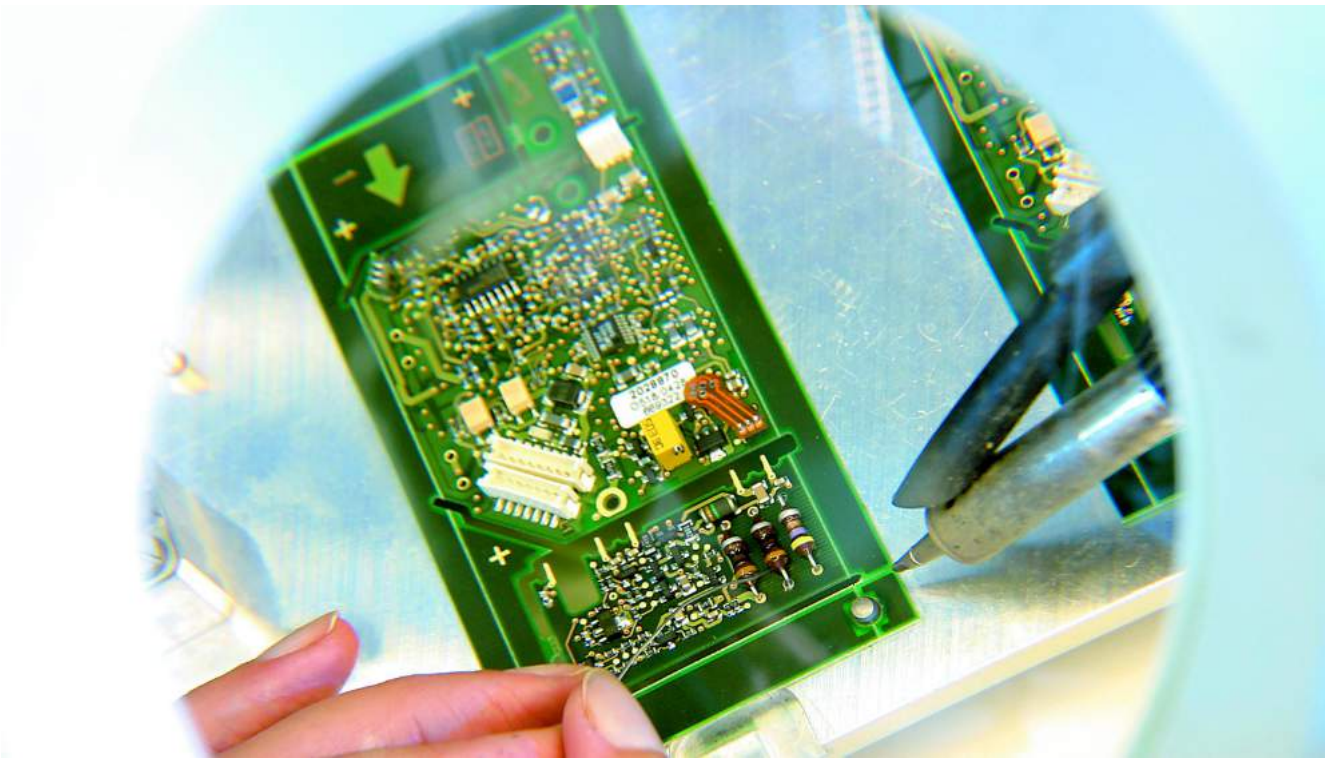
Electronic card production

At the Waldkirch site, electronic cards are produced for the sensors of all sites of the SICK Group. The internal requirements on delivery reliability, speed and quality mean that all production processes must kept under control, from SMD and bonding to manual mounting. The costs of production must not exceed the market level outside of SICK. Industry 4.0 is the guiding principle for expanding our core competencies.

SMD placement of printed circuit boards involves certain challenges when it comes to flexible delivery quantities with a very wide range of variants. In addition, particular importance is placed on energy efficiency due to the thermal treatment of the products. Continuous renewal of the machine park in this area ensures optimal operation in the interplay of time, quality and costs. Modern ovens for the soldering of components make a particularly large contribution to resource conversation with regard to Industry 4.0.

The “chip on board” bonding process satisfies requirements on small sizes and high accuracy. In 2004, this process was introduced in electronic card production at SICK and expanded in 2013. Chips are glued directly to the printed circuit board without a housing (die bonds) and connected electrically to the conductors with very thin wires (wire bonds). The chips and wires are covered to protect them from environmental influences (glop-top).

By now, almost all solder connections in electronic card production are lead-free. The use of this poisonous heavy metal has been discontinued with just a few exceptions. Thanks to their expertise and flexibility, the employees in the value-added chain make a significant contribution to the high reaction speed of production and complete fulfillment of the delivery requirements. The air conditioning system was optimized in 2013 in order to continue to increase quality of workstations and improve energy efficiency.



Manual soldering of an electronic card

PRODUCT GENERATING DIVISIONS

Final assembly

Precise joining of individual parts and the use of internally developed testing technology ensure the high quality and reliability of SICK products. The use of ultrasonic welding technology means that large quantities of adhesive no longer have to be applied when joining plastic housing. As all work steps are subject to constant monitoring, the reject rates and therefore also the disposal quantities of electronic scrap are extremely low. Final assembly is performed in Waldkirch and Reute.

Endmontage eines Sensors

Logistics

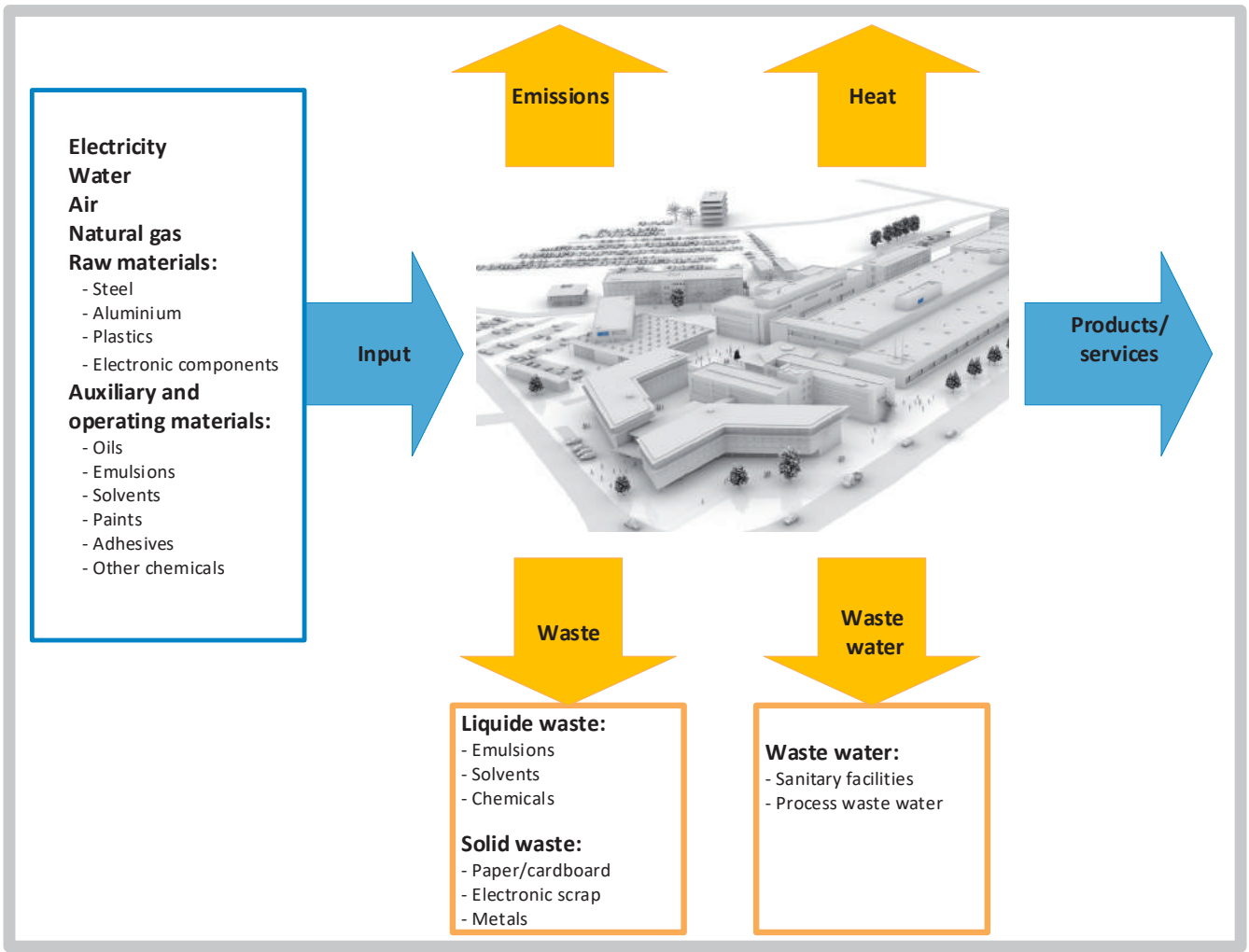
The final step on the path to the customer: The components, some of which are very delicate, are packed well and sent on their long journey. But good packaging doesn't necessarily have to harm the environment. The application of customizable air cushioning made of polyethylene, the use of cardboard packaging made of recycled material and the use of reusable or returnable packaging from selected suppliers helps SICK to reduce the quantity of packaging material to be purchased – a contribution to resource conservation and cost optimization. Furthermore, the CO_2 is offset for all mailed letters and 56% of all packages. This means that CO_2 emissions created during shipment are compensated for by means of a climate protection project. The move into the new distribution center in Buchholz took place in 2016. The building is energy-optimized and has received a DGNB certificate which honors sustainable building.

Logistikzentrum Buchholz

ENVIRONMENTAL ASPECTS

EINVIRONMENTAL ASPECTS IN THE PRODUCTION

The production of high-quality and reliable opto-electronic components requires a number of qualified steps that vary considerably with regard to their relevance to the environment. All of the processes and technologies applied, the raw, auxiliary and operating materials, and the resulting emissions (waste, waste water and exhaust air) are integrated according to the input-output diagram when considering the environmental aspects. The statutory requirements of the individual processes in particular are assessed. A detailed ABC analysis was performed in order to evaluate the relevance at an ecological and economic level. The results of the ABC analysis flowed into the environmental objectives and programs and are consistently pursued by the responsible teams.
The indirect environmental aspects are also evaluated according to the ABC analysis and are summarized on page 30.



ENVIRONMENTAL ASPECTS OUTSIDE THE PRODUCTION PROCESS

Storage of waste and hazardous substances

The auxiliary and operating materials such as paint, solvents, thinners, oils, emulsions, etc. required in production are stored in a specially approved hazardous goods container. The hazardous goods containers are located in Waldkirch and Reute and are equipped with collection basins that absorb all of the escaping substances in the event of a leak.

All waste that arises during production is stored at the relevant disposal station in Waldkirch and Reute in accordance with the official regulations. This includes paper, cardboard, scrap metal, electronic scrap and various special waste (emulsions, solvents, paint, adhesives, oil, etc.). The waste is removed only by certified waste management companies.

Administrative areas

The administrative areas located in both Waldkirch and Reute are also considered when determining the environmental aspects. Although there are no large and energy-intensive systems in these areas, a majority of SICK's overall power requirements are used by computers, screens, illumination, copiers, printers, etc. in the offices. This area at SICK is subject to constant optimization with regard to the latest technologies.

Business trips

SICK is a global company. Business trips between the individual sites cannot always be prevented. Business trips are replaced by telephone or video conferences wherever possible. Unavoidable business trips are made in the most environmentally friendly manner possible. Electric cars have been in use at the SICK Reute and Waldkirch sites since 2012 to cover short distances. In addition, a shuttle bus was set up between the Waldkirch, Buchholz, Denzlingen, Sexau and Reute sites. Ms. Dorothea Sick-Thies also donated six pedelecs, which can be used privately by employees.

E-UP!s of SICK AG

The trip to work

The "Environmentally-friend travel to SICK" employee initiative aims to motivate as many employees as possible to form carpools or switch to public transport or cycling. SICK AG has been awarded the ÖKO-VERKEHRSSIEGEL (Green Transport Prize) two times by the administrative districts of Breisgau-Hochschwarzwald and Emmendingen.

Environmental aspects outside of production processes

SICK is a rapidly expanding company with a growing need for production and office space. Good insulation, intelligent heating and ventilation technology, shading, cooling and building technology can save huge amounts of energy over the building's service life and therefore significantly reduce emissions. For this reason, at SICK it is mandatory for all planned new buildings to be subjected to energy optimization by an external energy consultant.
This includes the use of renewable energy sources like photovoltaic and geothermal energy.

On top of using renewable energy such as photovoltaics and ambient heat/cooling, new buildings are also constructed from wood as far as possible. A great deal of importance is attached to using local woods. At the start of 2017, for example, we were able to put two five-story office buildings, each with a floor area of around 4,350 m^2, into use and everything but their stairways was entirely constructed out of wood.

Existing buildings as well as technical systems are continuously checked for their energy efficiency and refurbished were needed.

Distribution Centre in Buchholz

When planning and building the new logistics center in Buchholz, countless environmental and energy aspects were taken into account. Among others, the amount of waste created was minimized during construction by balancing the excavation and filling volume.

The arrangement of the building and the staggering of the building heights were chosen so that the visual axes are harmoniously integrated into the surroundings and so that the building itself shields the nearest housing development from noise exposure caused by vehicle traffic. In addition, the rainwater from the sealed surfaces is fed into a seepage reservoir located on company property on the floodplains of the Elz river. The base heating load is covered with an air-water heat pump. The ventilation systems for the logistics hall feature heat recovery and therefore do not require heat supply via a heating register. And storage and retrieval systems with heat recovery of the braking energy are installed in the area of the high-bay warehouse. Existing buildings and domestic systems are also continuously tested for energy efficiency and renovated.

Production building in Reute

A new production building has been constructed at the Reute site, with plans focusing in particular on achieving a high degree of energy efficiency. The aim was not only to incorporate state-of-the-art plant technology, but also to position it in the ideal location. For example, ventilation systems were not installed on the roof, where they would be exposed to the elements, but on a technology platform inside the building, which was specially designed for this purpose. This means losses of heating and cooling energy can be prevented and more roof space becomes available for installing PV systems.

Building Z4 and Z5 in Waldkirch - built out of wood

KEY ENVIRONMENTAL ASPECTS

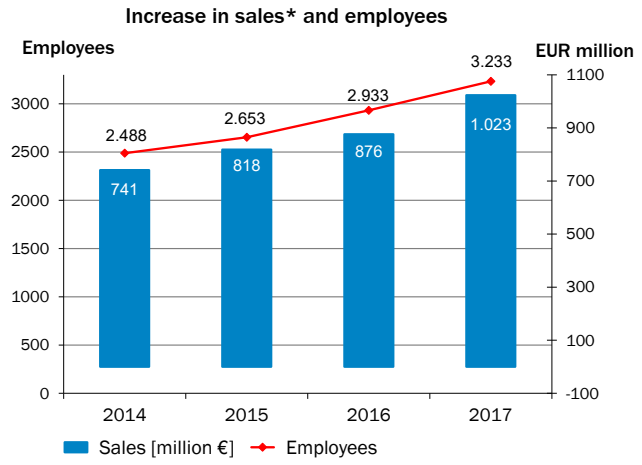
Environmental aspect	Environmental impact	Site	Energy consumption - CO_2 emission	Resource conservation	Area utilization	Use/emission of hazardous substances	Legal Compliance	Environmental relevance
Direct environmental aspects								
Product development	Effect on material usage in manufacturing process; REACH, RoHS compliance	W/R	■	■		■	■	A
Painting	Emission of solvents	R				■	■	A
Soldering	Use of partly leaded solder, energy consumption	W	■			■	■	B
Glass optics	Glass abravise slurry	R		■			■	B
Mechanical processing	Use of cooling lubricants, energy consumption	R	■	■		■	■	B
New buildings	Soil sealing/ energy consumption	W/R/B*	■		■		■	A
Building management	Energy consumption	W/R/B*	■				■	A
Production	Energy consumption	W/R/B*	■				■	A
Storage of waste and hazardous substances	Escape of hazardous substances in emergency situations	W/R				■	■	B
Indirect environmental aspects								
extended workbenches	CO2-Emission, inefficient use of resources	W/R	■	■			■	B
Business trips	CO_2-Emission	W/R/B*	■					A
Logistics	CO_2-Emission	B*	■					A

* Relocation of the distribiution centre from Waldkirch to Buchholz in 2016

Legend	
A	high environmental relevance
B	Medium environmental relevance
C	Low environmental relevance
W	Waldkirch
R	Reute
B	Buchholz

ENVIRONMENTAL FIGURES - ENVIRONMENTAL PERFORMANCE

SICK is a company with constantly increasing sales and employees.



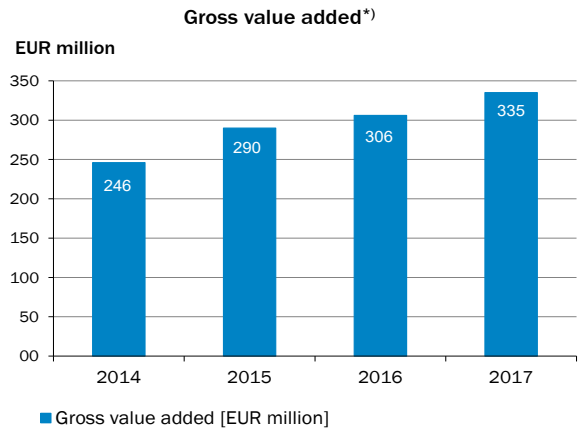
Economic and ecological success do not have to contradict each other. Quite the opposite is true, in fact: Increasing sales, employee numbers and the expansion of market presence provide additional opportunities to increase the sphere of influence of environmental protection. The improved environmental performance is illustrated by the following diagrams.

Key figures

An important requirement for improving environmental performance is meaningful figures.
What are known as **key indicators** were established in accordance with the EMAS III regulation.

The gross value added was selected as the reference value in order to compare **environmental performance** as the company grows over the years.

Gross value added includes the total goods and services produced at the market prices achieved – after deducting all the intermediate consumption – and is therefore the value that is added to the intermediate consumption by processing (definition from Federal Statistical Office, 2009).



*) It is not possible to present sales and gross value added figures separately for the Waldkirch and Reute sites.

KEY INDICATORS

	Key indicators	2014	2015	2016	2017
Input	**Energy (incl. fuel) [MWh]**	**26.365**	**29.873**	**34.193**	**37.405**
	Waldkirch (without fuel)	17.102	15.887	16.618	17.520
	Buchholz (without fuel)			1.054	1.140
	Reute (without fuel)	4.902	9.532	11.986	14.274
	Share of gas [MWh]	*9.436*	11.246	14.194	16.347
	Waldkirch	6.835	6.327	6.900	7.221
	Buchholz			458	502
	Reute	2.601	4.918	6.837	8.624
	Share of electricity [MWh]	12.568	14.174	15.463	16.586
	Waldkirch	10.267	9.560	9.718	10.298
	Buchholz			596	638
	Reute	2.300	4.614	5.150	5.650
	Percentage of fuels [MWh]	4.361	4.454	4.536	4.471
	Share of renewables – absolute [MWh]	12.568	14.174	15.463	16.586
	Share of renewables – relative [%]	48%	47%	45%	44%
	Material [t] *	**4.633**	**5.127**	**5.687**	**4.602**
	Waldkirch	3.657	4.022	1.853	743
	Buchholz			2.617	2.701
	Reute	977	1.105	1.217	1.157
	Water [m^3]	**39.599**	**41.044**	**37.102**	**44.240**
	Waldkirch	32.921	31.809	26.054	30.051
	Buchholz			611	857
	Reute	6.678	9.235	10.437	13.332
	Waste [t]	**704**	**839**	**815**	**1052**
	Hazardous waste	44	51	50	61
	Non-hazardous waste	661	788	765	991
	Sealed area [m^2]	**85.042**	**85.042**	**107.610**	**113.351**
	Waldkirch	50449	50.449	50.449	52.189
	Buchholz			22.568	22.568
	Reute	34.593	34.593	34.593	38.594
	CO_2 emissions direct – at the site [t]	**2.151**	**2.564**	**3.236**	**3.727**
	Waldkirch	1.558	1.443	1.573	1.646
	Buchholz			104	114
	Reute	593	1.121	1.559	1.966
	CO_2 emissions indirect – business travel [t]	**5.531**	**6.429**	**7.221**	**7.912**
	Train	10 **	11 ***	13 ***	15 **
	Company car	574	585	594	594
	Plane	4.947	5.833	6.614	7.303
Output	Gross value added [EUR million]	246,0	290,0	306,0	335,0
Input / Output	**Power [MWh/EUR million]**	**107,2**	**103,0**	**111,7**	**111,7**
	Gas [MWh/EUR million]	**38,4**	**38,8**	**46,4**	**48,8**
	Electricity [MWh/EUR million]	**51,1**	**48,9**	**50,5**	**49,5**
	Fuels [MWh/EUR million]	**17,7**	**15,4**	**14,8**	**13,3**
	Share of renewables [MWh/EUR million]	**51,1**	**48,9**	**50,5**	**49,5**
	Material [t/EUR million]	**18,8**	**17,7**	**18,6**	**13,7**
	Water [m^3/EUR million]	**161,0**	**141,5**	**121,2**	**132,1**
	Waste [t/EUR million]	**2,9**	**2,9**	**2,7**	**3,1**
	Sealed area [m^2/EUR million]	**345,7**	**293,2**	**351,7**	**338,4**
	CO_2 emissions direct – at the site [t/EUR million]	**8,7**	**8,8**	**10,6**	**11,1**
	CO_2 emissions indirect – business travel [t/EUR million]	**22,5**	**22,2**	**23,6**	**23,6**

* Note on the Calculation of Material [t]: Material use corresponds at SICK to the amount of products sent. With the exception of the CNC productions and glass optics, exclusively prefabricated components are used. In 2017 the way of calculating matieral use was adapted in order to be more precise. For ease of comparison, the 2016 value for material use was retrospectively calculated with the same method.

** The CO_2 emissions of the long-distance traffic of Deutsche Bahn have been compensated for since 2014.

Explanations:

Key indicators were established for the following areas: energy, materials, water, waste, biological diversity (sealed surface) and emissions.

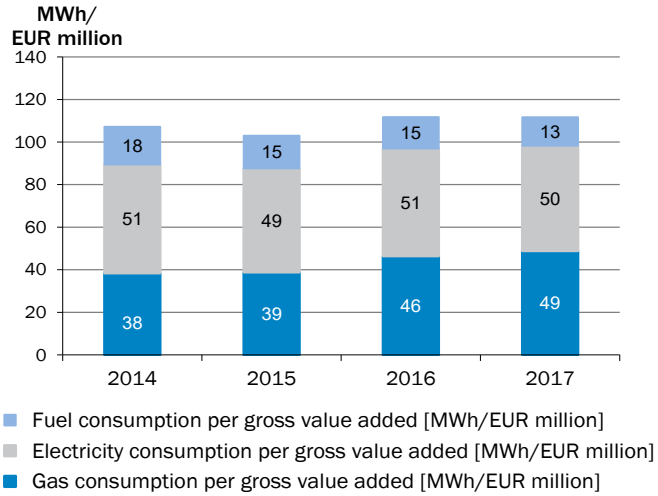
The increase in each key indicator can be traced back to the increase in employees and gross value.

The better utilization of the CHP plant in Reute led to increased gas consumption, that also resulted in an increase in CO_2 emissions.

Energy

Through efficient processes and good capacity utilization, we have been able to keep total energy consumption relative to gross value added at the same level, despite the company's rapid growth. At the same time, we have considerably increased the proportion of renewable power produced in-house and the amount of energy produced within the organization more generally. The rise in gas consumption can be explained by better utilization of the CHP plant in Reute.

Electricity and gas consumption

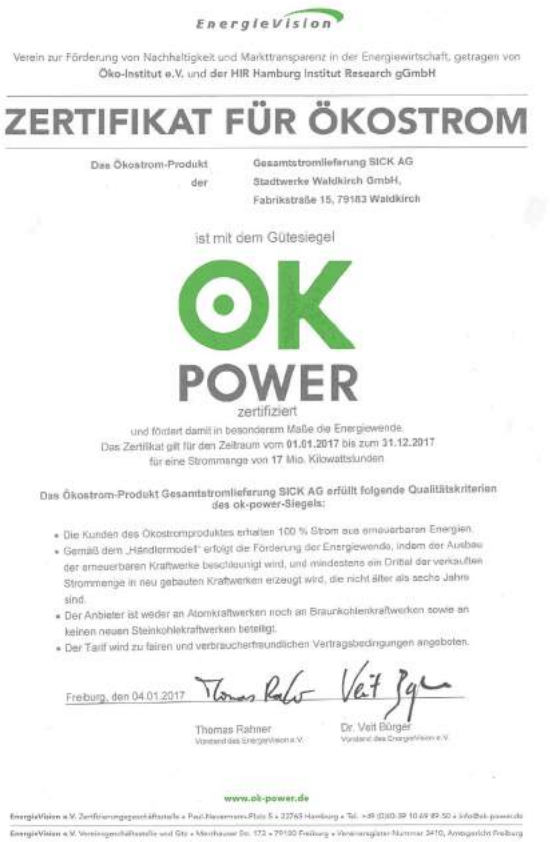


Certified Green Power

Certified green power has been used at all German sites since 02/01/2013. 100% of the green power used is sourced from the Waldkirch municipal utilities. The power comes from 100% renewable sources.

In Germany as a whole, the share of gross power consumption to come from renewable sources stood at 36.2% in 2017 (source: German Environment Agency).

By using 100% green power, SICK was able to prevent 7,033 t of CO_2 emissions at the Waldkirch, Reute and Buchholz sites in 2017.



EnergieVision

Verein zur Förderung von Nachhaltigkeit und Markttransparenz in der Energiewirtschaft, getragen von Öko-Institut e.V. und der HIR Hamburg Institut Research gGmbH

ZERTIFIKAT FÜR ÖKOSTROM

Das Ökostrom-Produkt der Gesamtstromlieferung SICK AG
Stadtwerke Waldkirch GmbH,
Fabrikstraße 15, 79183 Waldkirch

ist mit dem Gütesiegel

OK POWER

zertifiziert

und fördert damit in besonderem Maße die Energiewende.
Das Zertifikat gilt für den Zeitraum vom 01.01.2017 bis zum 31.12.2017
für eine Strommenge von 17 Mio. Kilowattstunden

Das Ökostrom-Produkt Gesamtstromlieferung SICK AG erfüllt folgende Qualitätskriterien des ok-power-Siegels:

- Die Kunden des Ökostromproduktes erhalten 100 % Strom aus erneuerbaren Energien.
- Gemäß dem „Händlermodell" erfolgt die Förderung der Energiewende, indem der Ausbau der erneuerbaren Kraftwerke beschleunigt wird, und mindestens ein Drittel der verkauften Strommenge in neu gebauten Kraftwerken erzeugt wird, die nicht älter als sechs Jahre sind.
- Der Anbieter ist weder an Atomkraftwerken noch an Braunkohlenkraftwerken sowie an keinen neuen Steinkohlekraftwerken beteiligt.
- Der Tarif wird zu fairen und verbraucherfreundlichen Vertragsbedingungen angeboten.

Freiburg, den 04.01.2017

Thomas Rahner
Vorstand des EnergieVision e.V.

Dr. Veit Bürger
Vorstand des EnergieVision e.V.

www.ok-power.de

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EnergieVision e.V. Vereinsgesellschaftsstelle und Sitz • Mozthauser Str. 173 • 79100 Freiburg • Vereinsregister-Nummer 3410, Amtsgericht Freiburg

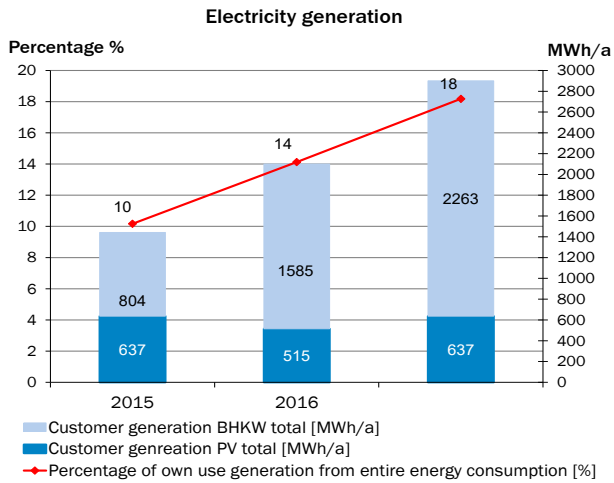
Energy generated at SICK sites

A total of 1,074 kWp of photovoltaic capacity as well as two CHP plants are available at the Waldkirch, Reute, and Buchholz sites for generating electricity and heat. The CHP plant at Waldkirch has a total capacity of 34 kWel, whereas the much bigger one at Reute has a total capacity of 527 kWel. These plants generated 2,900 MWh of power in 2017. This amounted to 18% of the overall power consumption.

In 2017, the installed photovoltaic capacity was practically doubled, from 574 kWp to 1,074 kWp

However, since the installation work extended into December, no yields have yet been gained from it.

By consistently connecting our new and existing buildings up to the company's own district heating network, we have been able to utilize the capacity of the CHP plants very efficiently and seen a positive increase in yields.

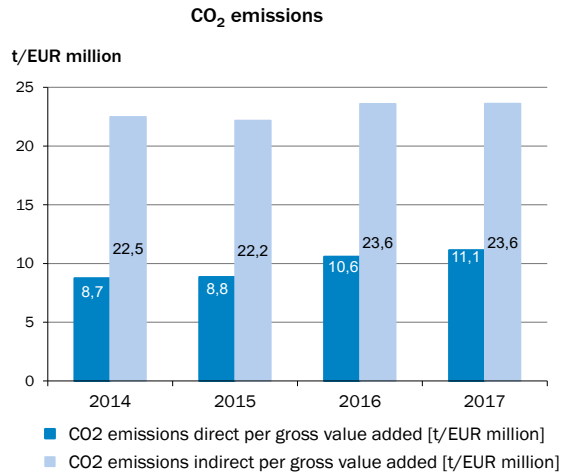


CO_2-Emissionen

The direct emissions are CO_2 emissions which occur due to, for example, gas comsumption directly at the sites. Gradually switching to green power has enabled us to considerably reduce direct CO_2 emissions each year.

The rise over the previous years can be traced back to increased gas consumption due to better utilization of the CHP plants.

Indirect CO_2 emissions refer to the emissions caused by business trips (plane, train, car). The slight increase in indirect CO_2 emissions in recent years is due to a greater need for international travel, which led to a rise in the number of flights taken. All unavoidable CO_2 emissions are offset through a dedicated SICK climate protection project.



Solvent emissions

Where the four main colors of our sensors – blue, black, orange, and yellow – are painted by hand, we have already switched over to water-based paints and primers. Solvent emissions are below the limit of 5 t/year for painting and 1 t/year for glass optics stipulated by the 31st German Federal Immission Protection Ordinance, i.e., no further measures need to be taken. However, the goal is still to replace all solvent-based paints with water-based coating systems. The plan for 2018 is for the technology at the paint plant in Reute to be upgraded so water-based paints can be applied automatically.

Waste

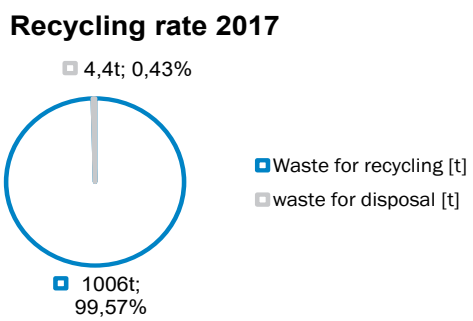
Waste is classified as hazardous (h) and non-hazardous (n.h.) waste in accordance with the Abfallverzeichnisverordnung (Waste Catalog Ordinance).

Predominantly non-hazardous waste is generated. Paper and cardboard packaging account for the largest share of non-hazardous waste (37%).

For hazardous waste, it is machining emulsions (cooling lubricants) at 71%.

Recycling rate

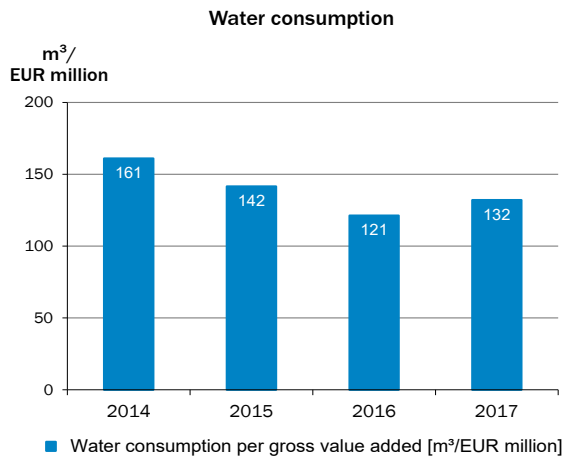
Fortunately the majority of the waste, except for our chemical waste, can now be recycled. Our residual waste also undergoes mechanical biological treatment. Our recycling rate was 99,57% in 2017.



	Classification	2017
Waste for recycling [t]		**1052,0**
Waldkirch		**626,7**
Buchholz		**109,8**
Reute		**345,3**
Recyclable waste material	**n.h.**	**316,4**
Waldkirch		**218,1**
Buchholz		**18,7**
Reute		**79,6**
Paper / cardboard packaging	**n.h.**	**349,4**
Waldkirch		**230,1**
Buchholz		**56,1**
Reute		**63,2**
Waste wood	**n.h.**	**148,2**
Waldkirch		**72,5**
Buchholz		**35,1**
Reute		**40,7**
Waste glass	**n.h.**	**2,5**
Metals	**n.h.**	**148,6**
Waldkirch		55,3
Reute		93,3
Aluminum	**n.h.**	**35,5**
Waldkirch		26,8
Reute		8,7
Scrap iron	**n.h.**	**0,0**
Waldkirch		0,0
Reute		0,0
Other metals	**n.h.**	**38,9**
Waldkirch		26,5
Reute		12,4
Aluminum chips	**n.h.**	**72,6**
Other chips	**n.h.**	**1,6**
Waste solder	**n.h.**	**0,0**
Electronic scrap	**n.h.**	**53,3**
Films and photographic Papers	**n.h.**	**0,0**
Glass abrasive slurry	**n.h.**	**4,9**
Construction and demolition waste	**n.h.**	**1,7**
TOTAL non-hazardous		**991,2**
Waldkirch		**621,3**
Buchholz		**109,8**
Reute		**289,7**
Waste paint and varnish	**h**	**0,9**
Waste adhesive	**h**	**1,3**
Machining emulsion	**h**	**43,2**
Waste oil	**h**	**0,2**
Solvents (halogen-free)	**h**	**11,6**
Aerosol cans	**h**	**2,5**
Extraction and filtering materials	**h**	**0,8**
Fluorescent tubes	**h**	**0,3**
Perchlorethylen	**h**	**0,0**
TOTAL hazardous		**60,8**
SICK AG, Waldkirch		**5,4**
Buchholz		**0,0**
Reute		**55,6**
Waste for disposal [t]		**4,4**
Waldkirch		**4,4**
Buchholz		**0,0**
Reute		**0,0**
Waste water treatment plant SMD	**n.h.**	**4,3**
Residual waste	**n.h.**	**
Waste water from ultrasonic washi	**h**	**0,0**
chemicals	**h**	**0,0**
TOTAL waste		**1056,4**
Waldkirch		**631,1**
Buchholz		**109,8**
Reute		**345,3**

Water

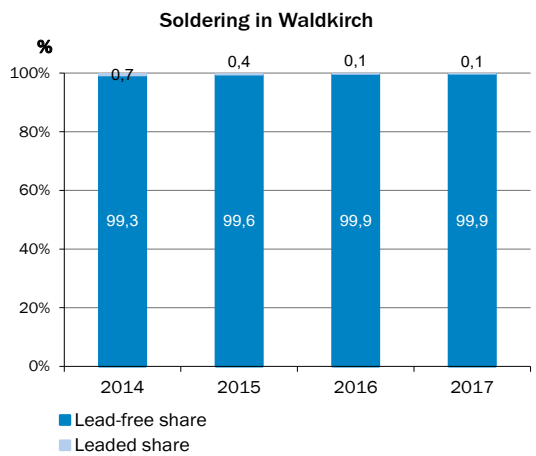
The majority of fresh water at SICK is consumed by production and the employees themselves (sanitary waste water). There is no individual main consumer.
In 2017, after years of falling water consumption relative to gross value added, there was a slight rise again. This is due to the growth of the workforce and the increase in office space.



Soldering

Products have been developed in conformity with the RoHS regulation and soldered without using lead since 2006. However, lead-free solder cannot currently be completely removed as there are still components that cannot withstand the higher temperatures of lead-free soldering.

The diagram shows how the proportions of lead-free soldering material and soldering material containing lead has developed. The proportion of lead-free solder is now 99.9%.



ENVIRONMENTAL OBJECTIVES

ENVIRONMENTAL OBJECTIVES 2017

		Environmental impact							
No.	Environmental objective	Minderung Energieverbrauch CO_2-Emission	Resource conservation	Substitution of hazardous substances	Environmental awareness communication	Measure	Location	Responsibility	Achieved
1	Substitution of solvent-based paints with hydro paints			■		Qualification of further standard paints	R	CUT	Objective partially achieved: central Hydropaint@SICK project monitored and being implemented further
2	Increased energy efficiency:Optimizing reflow ovens	■		■		Renovation of reflow ovens	W	CUE	Objective achieved: new reflow ovens replace some of old stock
3	Increase in sea freight and transition to modes of transport with lower CO_2 emissions	■				Increase in US sea freight shipments and transition from air freight to sea transport	B	LOG	Objective partially achieved: being pursued further
4	Reduction of CO_2 emissions by handling advertising material in DC	■	■			Handling processes in the distribution center, therefore no separate shipment to customers at the Leimen site	B	LOG	Objective achieved and completed
5	Avoiding use of paper	■	■			Avoiding printing receipts and labels by optimizing processes	B	LOG	Objective partially achieved: being pursued further
6	Introduction of a RoHS verification procedure			■		Implementation of a defined RoHS verification procedure	D	EM	Objective achieved
7	Reduction in the lead content of our products			■		Use of lead-free solder in production Qualification of components for lead-free soldering process	W/R	CUE/ GBC	Objective achieved: Percentage of lead-free solder 99.9%
8	Test bench/test equipment: installation of a transductor into the transformer feeds	■				Assessment of the efficiency of a transductor in the transformer feeds for energy savings and filtering of the harmonic content	W	EM	Objective being pursued further
9	CO_2 savings in shipping/factory traffic	■	■			Increase in percentage of CO_2-neutral package shipment	B	*LOG*	Partially achieved, objective being adapted
10	Compensation for unavoidable CO_2 emissions across Germany	■				Offsetting of CO_2 emissions by means of climate protection project (contract extension from 2017)	D	VO	Objective achieved: contract extended further
11	Expansion of the existing energy measurement system	■				Continual advancement of the energy measurement system, evaluation and creation of measures	W/R/B	FM	Objective partially achieved. Wird weiterhin verfolgt.
12	Plant for the Planet				■	Hosting of a Plant for the Planet event in Waldkirch	W/B	EM	Objective achieved: a successful Plant for the Planet campaign day was held in Waldkirch
13	Support of Zweitälerland "Mobile in the Valley" mobility concept	■			■	Supervision of SAP TwoGo a carpooling platform	W/R/B	*EM*	Objective achieved: supervision ongoing
14	Promotion of consciousness for renewable energy in schools	■				Financing of the "Experiments with Renewable Energy" project in collaboration with Fesa e.V. Freiburg	W/R	*EM*	Objective achieved: Fesa projects have been supported financially and implemented successfully
15	Reduction of CO2 emissions by selecting of vehicle models with low CO2 emissions	■	■			Reduction of average CO_2 emissions to ≤ 130 g CO2/km for all newly approved vehicles	W/R/B	*GF*	Objective achieved: emissions reduced, updated Green Car Policy introduced to reflect the current state of the art
16	Wind analysis on the roof of the Buchholz logistics center	■				Assessment of the effectiveness of a small wind power plant	B	*EM*	Objective achieved: assessment done, would not be effective
17	Development of energy standards	■				Development of energy standards in the areas of new buildings and operation of energy-intensive plants	W/R/B	*EM*	Objective partially achieved: being pursued further
18	Infrastructure concept for electric vehicles	■				Creation of an infrastructure concept for refueling electric vehicles	D	*EM*	Objective achieved: the project has started and a concept has been created

ENVIRONMENTAL OBJECTIVES 2018-2020

		Environmental impact									
No.	Environmental objective	Energy efficiency CO_2 emissions	Resource conservation	Substitution of hazardous	Environmental awareness	Measure	Location	Responsibility	2018	2019	2020
1	Substitution of solvent-based paints with hydro paints			■		Qualification of other standard colors (reduction of solvent emissions by about 0.9 t)	R	*CUT*	■	■	■
2	Use of new reflow ovens	■				New reflow ovens to be used, each of which consumes about 10% less current on average	W	*CUE*		■	■
3	Greater integration of extended workbenches					Development and application of contractual bases relating to environmental issues		*CUE*	■		
4	Increase in sea freight and transition to modes of transport with lower CO_2 emissions	■				Increase in US sea freight shipments and transition from air freight to sea transport	B	*LOG*	■	■	■
5	Avoiding use of paper	■	■			Avoiding printing receipts and labels by optimizing processes	B	*LOG*	■		
6	Recycled paper		■			Switching to recycled paper within the organization	W	*IT/ UM*	■		
7	Reduction in the lead content of our products			■		Use of lead-free solder in production	W/R	*CUE GBC*	■	■	■
						Qualification of devices for lead-free soldering process		*CUE GBC*	■	■	■
8	CO_2 savings in shipping/factory traffic	■	■			Increase in percentage of CO_2-neutral package shipment	B	*LOG*	■	■	■
9	Compensation for unavoidable CO_2 emissions across Germany	■				Offsetting of CO_2 emissions by means of climate protection project	D	*VO*	■	■	■
10	Expansion of the existing energy measurement system	■				Continual advancement of the energy measurement system, evaluation and creation of measures	W/R/B	*FM*	■	■	■
11	Reduction of CO_2 emissions through optimized use of gas					Reduction of CO_2 emissions through optimized use of gas, undershooting limits defined in the German Energy Saving Ordinance	W/R	UM FM	■	■	■
12	New buildings to be constructed in an environmentally friendly way					Priority to be given to sustainable construction materials when planning and erecting new buildings, e.g., Holzbauweise, GLT, EMM	W	FM	■	■	■
13	Support of Zweitälerland "Mobile in the Valley" mobility concept	■			■	Supervision of SAP TwoGo a carpooling platform	W/R/B	*EM*	■		
14	Promotion of consciousness for renewable energy in schools	■				Financing of the "Experiments with Renewable Energy" project in collaboration with Fesa e.V. Freiburg	W/R	*EM*	■	■	■
15	Reduction of CO_2 emissions by updating the Green Car Policy	■	■			Reduction of average CO_2 emissions in line with the current state of the art and realistic values from the new WLTP. New update of the Green Car Policy	D	*UM VO*	■		
16	Reduction of CO_2 emissions from business trips by using alternatives to conventional drive types	■	■			Extension of the Green Car Policy to include electric vehicles and the BahnCard 100 First Class	W/R/B	*UM FM*	■		
17	Biodiversity @ SICK		■			Analysis of potential to improve biodiversity in consultation with FM	W/R/B	*UM FM*	■	■	
18	Plant for the Planet				■	Hosting of a Plant for the Planet event in Waldkirch	W/B	*EM*	■		
19	Development of energy standards	■				Development of energy standards in the areas of new buildings and operation of energy-intensive plants	W/R/B	*EM*	■	■	
20	Infrastructure concept for electric vehicles	■				Creation of an infrastructure concept for refueling electric vehicles	D	*EM*	■		

PORTRAIT

SICK Vertriebs-GmbH

40549 Düsseldorf, Willstätterstrasse 30

Employees 2017
Düsseldorf: 434

Site description
SICK Vertriebs-GmbH is located in the district of Heerdt in Düsseldorf. Four stories of an office building with a total area of 4,800 m^2 have been leased.

Processes
SICK Vertriebs-GmbH assumes sales and services for factory, logistics and process automation product in Germany for the SICK Group and is in constant contact with customers and the SICK Group.

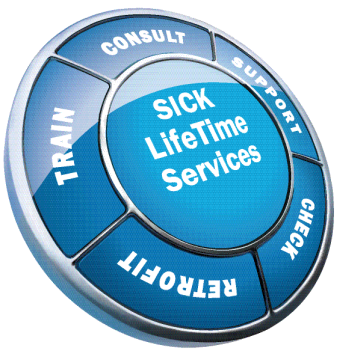
The **sales and field service team** is an on-site contact for customers for direct and personal support in all questions having to do with the SICK product range.

The **technical support line** helps customers and gives consultation on everything from the application to the product.

Internal sales, **service call scheduling**, the **service back office** and **order processing** consult and support the customer in all commercial questions and services such as training and product service on-site.

The **marketing communication** area is responsible for trade fairs, mailings, media and website supervision. In addition, the department is an interface to eBusiness topics.

SICK LifeTime Services
SICK LifeTime Services offers high-quality services worldwide. These services enhance personal safety and increase machine and system productivity to provide a solid foundation for a sustainable business operation. Services range from product-independent consulting to traditional product services.



ENVIRONMENTAL ASPECTS

Environmental aspect	Environmental Impact	Energy consumption - CO2 emission	Resource conservation	Environmental relevance
Direct environmental aspects				
Administration	Paper consumption		■	B
Heating	CO_2-Emission	■		C
Current	CO_2-Emission	■		C
Water consumption	Water		■	C
Indirect environmental aspects				
Business trips	CO_2-Emission	■		A

Legend	
A	high environmental relevance
B	Medium environmental relevance
C	Low environmental relevance

The main environmental impact of SICK Vertriebs-GmbH is not caused at the site itself (purely a management site), but by CO_2 emissions resulting from business trips (indirect environmental aspects). Business trips are generally made by car, rail or air.

The environmental objectives are derived from the main environmental aspects in order to minimize the environmental impacts.

ENVIRONMENTAL FIGURES - ENVIRONMENTAL PERFORMANCE

Key Indicators

Key indicators		2014	2015	2016	2017
Input	**Energy [MWh]**	**315**	**345**	**343**	**347**
	Share of gas [MWh]	113	142	142	142
	Share of electricity [MWh]	202	203	201	205
	Water [m^3]	**870**	**914**	**932**	**998**
	Waste [t]	**14**	**14**	**14**	**14**
	CO_2 emissions [t] direct – at the site	**26**	**32**	**32**	**32**
	CO_2 emissions [t] emissions indirect – business travel	**1.119**	**1.218**	**1.269**	**1.386**
	Train [t]	3	3	3	4
	Company car [t]	1.025	1.050	1.082	1.149
	Plane [t]	91	165	184	233
Output	Gross value added [EUR million]	56	60	70	70
Input / Output	**Power [MWh/EUR million]**	**5,6**	**5,8**	**4,9**	**5,0**
	Gas [MWh/EUR million]	**2,0**	**2,4**	**2,0**	**2,0**
	Electricity [MWh/EUR million]	**3,6**	**3,4**	**2,9**	**2,9**
	Water [m^3/EUR million]	**15,5**	**15,2**	**13,3**	**14,3**
	Waste [t/EUR million]	**0,3**	**0,2**	**0,2**	**0,2**
	CO_2 emissions direct – at the site [t/EUR million]	**0,5**	**0,5**	**0,5**	**0,5**
	CO_2 emissions indirect – business travel [t/EUR million]	**20,0**	**20,3**	**18,1**	**19,8**

* The CO_2 emissions of the long-distance traffic of Deutsche Bahn have been compensated for since 2014.

Note:
The direct CO_2 emissions refer exclusively to the gas consumption for heating. In 2012, the CO_2 emissions arising from business trips were determined for the first time. From this, it is clear that indirect CO_2 emissions have the most significance for the environment.
According to EMAS III, it is possible to leave out certain key indicators if they do not have any environmental relevance. For SICK Vertriebs GmbH, as a pure distribution site without any production areas in the leased rooms, neither material efficiency nor area utilization (biological diversity) is of any significance. These two figures have not been determined for this reason.

Waste

SICK Vertriebs-GmbH leases a part of a building and shares the waste containers for paper and recyclable waste material with other tenants. The disposal costs are apportioned on an annual basis. Quantities are therefore not able to be recorded separately.

Old files are disposed of separately for reasons of data protection, as well as electronic scrap that originates from the return of devices or components from the service and repair area.

The recycling rate is 100%.

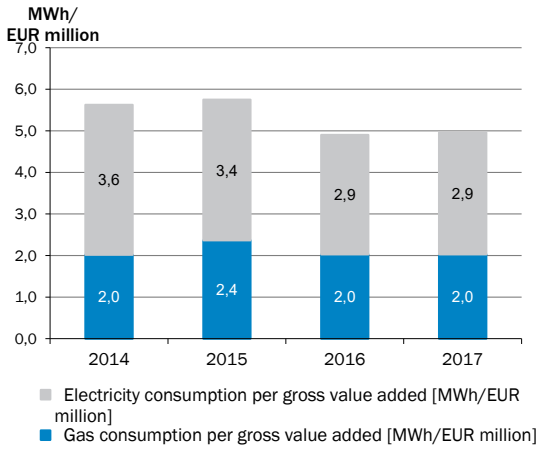
		2017
Waste for recycling [t]	**Classification**	**Quantity [t]**
Recyclable residues*	n.h.	8,0
Paper *	n.h.	4,0
Old files	n.h.	1,2
Electronic scrap	n.h.	0,8
	TOTAL non-hazardous	13,9
Electronic scrap	h.	0,0
	TOTAL hazardous	0,0
	TOTAL waste	13,9

*) Calculation of the amount of waste from the apportioned disposal costs (annual statement from the landlord)

Energy consumption

We had been able to continuously lower total energy consumption relative to gross value added over the past few years, although this has now stalled at the same level from 2016 to 2017. The use of a water-fed ceiling cooling system means that an air-conditioning system is no longer required to cool the building.

Electricity and gas consumption



Certified Green Power

Since 2/1/2013, certified green power has been used at all German sites. 100% of the green power used is sourced from the Waldkirch municipal utilities. 100% of the power is from renewable energy sources.

In Germany as a whole, the share of gross power consumption to come from renewable sources stood at 36.2% in 2017 (source: German Environment Agency).

By using 100% green power, SICK was able to prevent 89 t of CO_2 emissions at the Düsseldorf site in 2017.

EnergieVision

Verein zur Förderung von Nachhaltigkeit und Markttransparenz in der Energiewirtschaft, getragen von **Öko-Institut e.V.** und **der HIR Hamburg Institut Research gGmbH**

ZERTIFIKAT FÜR ÖKOSTROM

Das Ökostrom-Produkt der **Gesamtstromlieferung SICK AG**
Stadtwerke Waldkirch GmbH,
Fabrikstraße 15, 79183 Waldkirch

ist mit dem Gütesiegel

OK POWER

zertifiziert

und fördert damit in besonderem Maße die Energiewende.
Das Zertifikat gilt für den Zeitraum vom **01.01.2017** bis zum **31.12.2017**
für eine Strommenge von **17** Mio. Kilowattstunden.

Das Ökostrom-Produkt Gesamtstromlieferung SICK AG erfüllt folgende Qualitätskriterien des ok-power-Siegels:

- Die Kunden des Ökostromproduktes erhalten 100 % Strom aus erneuerbaren Energien.
- Gemäß dem „Händlermodell" erfolgt die Förderung der Energiewende, indem der Ausbau der erneuerbaren Kraftwerke beschleunigt wird, und mindestens ein Drittel der verkauften Strommenge in neu gebauten Kraftwerken erzeugt wird, die nicht älter als sechs Jahre sind.
- Der Anbieter ist weder an Atomkraftwerken noch an Braunkohlenkraftwerken sowie an keinen neuen Steinkohlekraftwerken beteiligt.
- Der Tarif wird zu fairen und verbraucherfreundlichen Vertragsbedingungen angeboten.

Freiburg, den 04.01.2017

Thomas Rahner
Vorstand des EnergieVision e.V.

Dr. Velt Bürger
Vorstand des EnergieVision e.V.

www.ok-power.de

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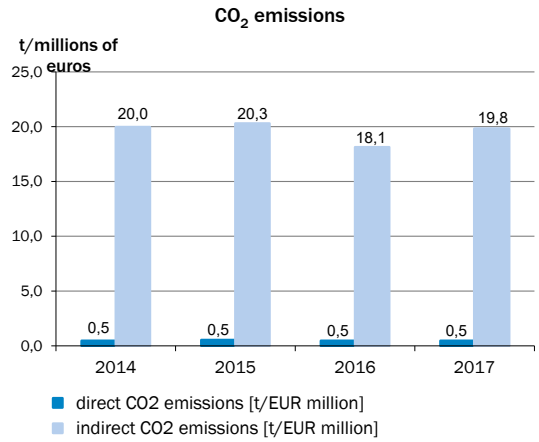
EnergieVision e.V. Vereinsgeschäftsstelle und Sitz • Merzhauser Str. 173 • 79100 Freiburg • Vereinsregister-Nummer 3410, Amtsgericht Freiburg

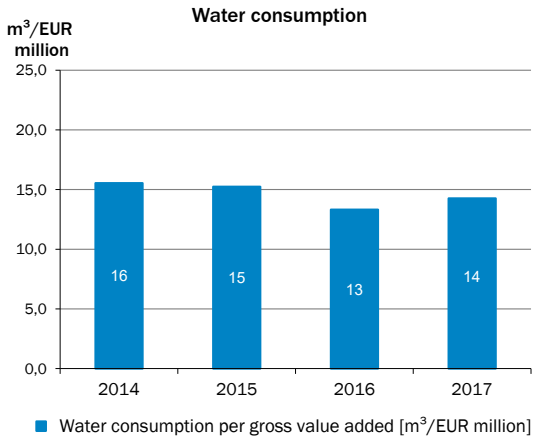
Emissions

Since 2012, the CO_2 emissions arising from business trips (indirect emissions) have been offset through a dedicated SICK climate protection project. The diagram illustrates the relevance of these indirect emissions as compared with direct emissions (emissions at sites). The slight increase in indirect CO_2 emissions in recent years is due to a greater number of company vehicles.



Water consumption

Despite the drop in water consumption relative to gross value added that has been observed over the last few years, this level rose again slightly in 2017. We put this down to more employees (37 new workers came on board in 2017) and to natural fluctuations.

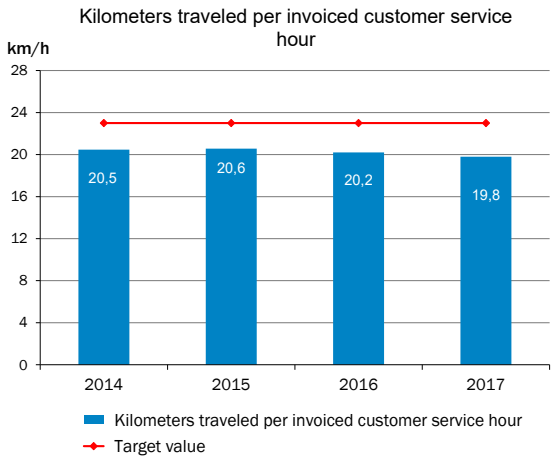


Business trips

The majority of CO_2 emissions are caused by business trips required to support the customer in commissioning, periodic inspections and tests, optimizations and repairs.

The figure “kilometers traveled per service hour” is set as the indicator for the emissions generated by these field service business trips. Of course, the goal is to reach the customer quickly and reliably, but also to save resources and think about the environment.

Since 2012, the key figures have been available for the entire field service of SICK Vertriebs-GmbH. A target value of 23 has been defined for the averaged power of field service. This could be exceeded in 2017 as well.



ENVIRONMENTAL OBJECTIVES

Environmental objectives 2017

		Environmental impact				
No.	Environmental objective	Minimization of CO_2 emissions from energy consumption	Resource conservation	Measure	Responsibility	Achieved
1	Creating awareness for environmental and energy efficiency	■		Screening of the film “Power to Change”	QM	Objective partially achieved, being pursued further
2	Avoiding use of paper in logistics		■	Transition to paperless processing in incoming and outgoing goods	FM/ LOG	Objective achieved
3	Transition from fluorescent tubes to LED illumination		■	Test of profitability	FM	Objective achieved and completed. Going forward, only LEDs to be used whenever lighting is replaced.
4	Standardization of CO_2-neutral shipment	■		Participating in go-green for sending letters, selection of carriers according to CO2-neutral shipping criteria, using the SAP email function for standard offers under EUR 12,500, sending inspection reports to customers electronically	FM	Objective achieved
5	Economic consumption of resources by reusing printer and toner cartridges in administration	■		Separate collection and sending to certified recycling operators	*FM*	Objective achieved
6	Economical consumption of resources by reducing use of packaging materials	■		Return of empty packaging to the manufacturer or reuse of incoming packaging for internal SICK dispatch	FM	Objective achieved
7	Reduction of fuel consumption or kilometers traveled per hour worked to below 23 km/production hours for field service	■		Optimized route planning for all service orders and use of navigation systems as standard equipment	SM	Objective achieved: 18,4 km/ hour worked on annual average 2017
8	Reduction of CO_2 emissions by selection of vehicle models with low CO2 emission	■		Reduction of average CO_2 emissions to ≤ 130 g CO2/km for all newly approved vehicles	GF	Objective partially achieved, helped by the updated Green Car Policy
9	Reduction of CO_2 emissions by minimizing fuel consumption per kilometers traveled	■		Appeal to all managers and vehicle users, particularly for private use	GF	Objective partially achieved, being pursued further
10	Compensation for unavoidable CO_2 emissions	■		Compensation of CO_2 emissions by means of climate protection project	*VO*	Objective achieved, in cooperation with SICK AG

Environmental objectives 2018 - 2020

		Environmental impact							
No.	Environmental objective	Minimization of CO_2 emissions from energy consumption	Resource conservation	Environmental awareness, communication	Measure	Responsibility	2018	2019	2020
1	Creating awareness for environmental and ressource efficiency			■	On top of Health Day, there are also plans for an Environment Day, notices to raise awareness of how to heat and ventilate spaces in a way that saves energy.	QM	■		
2	Avoiding use of paper	■			Switching goods in and out to a paperless system; changing printers over to duplex printing; fax machines only to issue send reports if there is a problem with sending. Using the SAP email function for standard offers under EUR 12,500, sending inspection reports to customers electronically.	FM/ LOG/ IT	■	■	■
3	Recycled paper		■		Switching to recycled paper within the organization in consultation with SICK AG.	FM	■		
4	Standardization of CO2-neutral shipment	■			Participating in go-green for sending letters, selection of carriers according to CO_2-neutral shipping criteria	FM	■	■	■
5	Economic consumption of resources by reusing printer and toner cartridges in administration		■		Separate collection and sending to certified recycling operators	FM	■	■	■
6	Economical consumption of resources by reducing use of packaging materials		■		Return of empty packaging to the manufacturer or reuse of incoming packaging for internal SICK dispatch	FM	■	■	■
7	Reduction of fuel consumption or kilometers traveled per hour worked to below 23 km/production hours for field service	■			Optimized route planning for all service orders and use of navigation systems as standard equipment	SM	■	■	■
8	Reduction of CO2 emissions by selection of vehicle models with low CO2 emission	■			Reduction of average CO_2 emissions to ≤ 132 g CO_2/km for all newly approved vehicles based on the new WLTP test and the updated SICK Green Car Policy; in cooperation with SICK AG	GF	■	■	■
9	Reduction of CO_2 emissions by minimizing fuel consumption per kilometers traveled	■			Appeal to all managers and vehicle users, particularly for private use	GF	■	■	■
10	Reduction of CO_2 emissions from business trips	■			Preferably, internal service employees to take their business trips by train (Deutsche Bahn). 100% green power is used when traveling by train.	*SVD*	■	■	■

Encoder	
SM	Service Management
FM	Facility Management
GF	Corporate Management
QM	Quality management
LOG	Logistics

VALIDATION

TÜV NORD

ENVIRONMENTAL VERIFIER'S DECLARATION ON VERIFICATION AND VALIDATION ACTIVITIES

EMAS

in accordance with the

REGULATION (EC) No 1221/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009

on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS)

Dr. Erwin Wolf, accredited for the NACE code 26.51 – Manufacture of instruments and appliances for measuring, testing and navigation (sites Waldkirch and Reute), Dr. Ortrun Janson-Mundel, accredited for the NACE code 46.52 – Wholesale of electronic and telecommunications equipment and parts (site Düsseldorf), and Georg Wellens, accredited for the NACE code 52 – Warehousing and support activities for transportation (distribution center Waldkirch), declare to have verified that the whole organisation

SICK AG **Erwin-Sick-Straße 1** **79183 Waldkirch** **Germany**	**SICK AG** **Nimburger Straße 11** **79276 Reute** **Germany**	**SICK Vertriebs-GmbH** **Willstätterstraße 30** **40549 Düsseldorf** **Germany**	**Distributionszentrum Buchholz** **Gerbermatter 1** **79183 Waldkirch** **Germany**

as indicated in the environmental statement meets all requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme in the version amended by regulation (EU) 2017/1505 are fulfilled (EMAS).

By signing this declaration, it is declared that

- **the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009,**
- **the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,**
- **the data and information of the environmental statement 2017 of the organisation reflect a reliable, credible and correct image of all the organisations activities, within the scope mentioned in the environmental statement 2017.**

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a Competent Body under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication.

Hamburg/Essen/Waldkirch, 21.06.2018

Dr. Erwin Wolf Environmental Verifier DE-V-0050	Dr. Ortrun Janson-Mundel Umweltgutachterin DE-V-0193	Georg Wellens Environmental Verifier DE-V-0118

2013-07-17 · WV_M/CM

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Our next consolidated Environmental Statement will be published in October 2021

SICK
Sensor Intelligence.