



Corporate Sustainability Environmental Statement 2017

Global Compact Report
Wieland Division

Bamberg and Sokolov locations





▲ Plant II, Rodezstraße
in Bamberg



▲ Company headquarters
in Bamberg



▲ STOCKO main plant
in Wuppertal

wieland group

AT HOME ALL OVER THE WORLD

Wieland Electric GmbH is a medium-sized family-run electrical and electronics company headquartered in Bamberg. Founded in 1910, Wieland is one of the pioneers of electrical connection technology.

This family business with its international outlook is a market leader in pluggable installation technology for functional buildings, with subsidiaries worldwide and production lines not only in Bamberg but also in the Czech Republic and China.

The Wieland Group, which has included STOCKO Contact GmbH & Co. KG since 1998, is therefore represented in over 70 countries and employs some 2,200 people.



Solutions for

Building technology

Wind power

Machine building

*Lighting
technology*

*Heating, ventilation,
air conditioning*

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Global Compact at Wieland



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Statement of support from the Board

Wieland Electric GmbH celebrated its centenary in 2010. From its early beginnings right up to now as a medium-sized global player, the company has held true to the Wieland commercial principle of providing customers with safe and innovative products for building installation and industrial automation.

Alongside the achievement of economic objectives, a responsible approach to people and the environment is an ever-present within the company philosophy. As a company that operates worldwide, we acknowledge our ecological and social responsibilities. The introduction of an environmental management system according to ISO 14001 and EMAS back in 1997 and its ongoing improvement underline the high level of importance we attach to these endeavors.

We base our actions on the environmental policy developed and published by the management and on the manner in which it is implemented in all areas of the company. The selection of ecologically harmless raw materials, the planning and introduction of energy-saving and environmentally friendly production processes, and the recyclability of our products are the result of these efforts.

We firmly believe that the working conditions, training opportunities, and motivation of our staff contribute decisively to the company's success and help to secure its future.

This belief is reflected in both our training concept and our support for numerous community projects and social institutions.

As a clear sign of our conviction, we joined the United Nations Global Compact back in 2008 and support the **ten principles** of this initiative in our entrepreneurial activities:

1. We support and respect the protection of internationally proclaimed human rights in our sphere of influence.
2. We make sure that our company is not complicit in human rights abuse.
3. We uphold the freedom of association and the effective recognition of the right to collective bargaining.
4. We are committed to the elimination of all forms of forced and compulsory labor.
5. We are dedicated to the effective abolition of child labor.
6. We stand up for the elimination of discrimination in respect of employment and occupation.
7. We support a precautionary approach to environmental challenges.
8. Within our operations we undertake initiatives to promote greater environmental responsibility.
9. We encourage the development and diffusion of environmentally friendly technologies.
10. We work against corruption in all its forms, including extortion and bribery.

This progress report represents all our activities in relation to our corporate social responsibility in one report. We have prepared this report for our shareholders, customers, employees, and interested members of the general public as a way of transparently setting out the correlations between the principles of the Global Compact, our company guidelines and the resulting objectives, projects, and activities.



Managing Directors

◀ Dr. Oliver Eitrich

Dr. Ulrich Schaarschmidt ▶



The Wieland Group

A winning structure

Wieland Group

Wieland Division

Wieland Electric GmbH

Sales Center

Development

Plastics production

Metal production

Electro-plating

Assembly

Cable assembly

Electronics production

Technical training center

Wieland Electric International

Wieland Electric Inc.
Oakville, Ontario,
Canada

Wieland Electric Ltd.
Guildford/Surrey, U.K.

Wieland Electric SARL.
Cergy-Pontoise Cedex,
France

Wieland Electric S.r.l.
Settimo Milanese, Italy

Wieland Electric S.L.
Barcelona, Spain

Wieland Electric Sp. Zo.o.
Swadzim, Poland

ATEM-Wieland Electric NV
Willebroek, Belgium

Wieland Electric A/S
Køge, Denmark

Wieland Electric AG
Winterthur, Switzerland

Wieland Electric Trading
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China

Wieland Electric Co, Ltd.
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Corporate sustainability

Company guideline

Wieland's philosophy underpins our actions.
It is our aspiration and our yardstick for
dealing with employees, customers and other
business partners.





➤ Identity:

We are a financially independent family business with a clear commitment to our head office in Bamberg. Since the company was founded in 1910 we have been a pioneer in safe electrical connection.

➤ Values:

We are happy to assume responsibility, with an entrepreneurial mindset and a customer-focused attitude in everything we do. Team spirit, dependability, mutual trust, and appreciation shape our interaction with one another. Open communication fosters motivation and personal initiative. We create space for new ideas and continuously strive for improvement.

➤ Culture:

We foster honesty and fairness within the company and in our relationships with our business partners. We value the diversity of different cultures. We open up horizons for our staff and provide them with opportunities to develop. An open feedback culture helps everyone to achieve agreed targets.

➤ Responsibility:

We assume responsibility for sustainable growth and a reasonable profit situation over the long term. This will secure the independence and future of our company. A responsible attitude toward people and the environment is a feature of everything we do. It goes without saying that we comply with legal regulations and guidelines. We assume social responsibility, commit ourselves to social and humanitarian causes, and promote culture, education and sport.



Corporate sustainability

Commitment to safety and society

We foster honesty and fairness within the company and in our relationships with our business partners. We value the diversity of different cultures. We open up horizons for our staff and provide them with opportunities to develop. An open feedback culture helps everyone to achieve agreed targets.

Occupational safety and health promotion

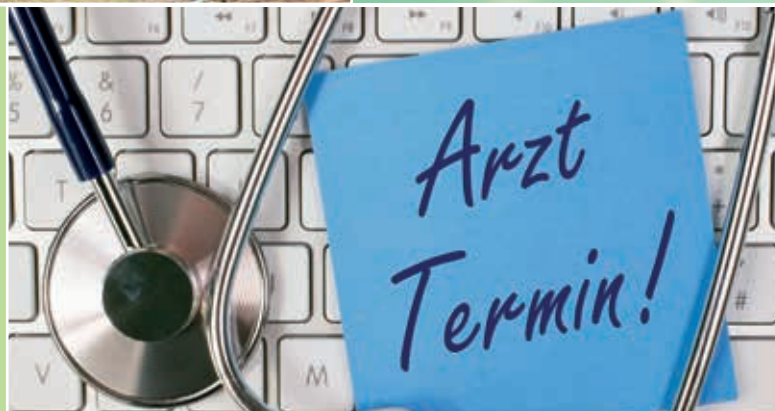
Through various health projects and measures we demonstrate the responsibility we feel toward our staff and raise awareness of the supreme value of all our health.

For example, we regularly conduct campaigns to promote healthy eating, such as a Fruit Day with free fruit. It goes without saying that company physicians also offer advice on vaccinations, trips abroad, and other health issues. In the interests of having a positive, long-term influence on staff health, we also offer courses to help our employees and their partners quit smoking. We have also incorporated diagnostic back scans, „back fit“ events, and in-house massages. Running groups and walking courses complement our program. Wieland teams at the World Heritage Run provide enjoyment and a positive group dynamic.

Health is also a topic for our apprentices; for instance, they have created a “recreational island” with fruit trees on a grassy spot of our factory grounds; this project will be continued and expanded over the next few years.

To tackle the alarming number of mental health issues affecting employees at the moment in a proactive manner, we, with the support of our association, vbm bayme, regularly organize workshops for middle and senior management, to make them aware of impending burnout and other illnesses so they can react early, where applicable, to danger signals within themselves and their staff.

We dedicate ourselves to the issue of occupational safety by regularly instructing our employees about safety in the workplace and by implementing detailed accident analyses and prevention measures. Our goal is for there to be no occupational accidents whatsoever so that our staff go home in the evening



as healthy as they were when they started their work in the morning. Admittedly, our heightened appreciation for, and deeper commitment to, health management at Wieland can also be attributed to demographic change and the potential for a shortage of skilled personnel. Looking consistently to the future, we are committed to preserving and promoting the health of our employees, partly through a systematic company reintegration management policy. We are devoting a great deal of attention to this, as is required. This approach is intended to make our entire workforce feel healthier and appreciated, irrespective of the individual's age or stage of career.

Social engagements

Our engagement in this area is evident in the social, cultural, and sporting domain. Wieland considers itself to be a strong partner in the region, with a clear commitment to Bamberg as the home of its headquarters.

Since 2011, for example, we have offered children or dependent family members the opportunity to take advantage of the „Plattform Betreuung“ (care platform) should they require short-term assistance, through our association vbm bayme. Through our funding of the „Bamberger Ferienabenteuer“ (Bamberg vacation adventure), we have been offering employees for several years the chance to secure attractive offers for organizing vacation time for their children on special early-bird terms.

What is more, every two years Wieland sponsors the World Heritage Run and enters the event with its own running team. We also impress at the annual Bamberg inter-company indoor football tournament, both with our financial commitment and with a strong Wieland side.

The fact that Wieland also has a warm heart for people with a disability is evident in our commitment to the

association „Lebenshilfe e. V.“. Together we organize an annual painting contest for the Wieland Christmas card.

The integration of refugees is also important to us. During Advent, Christmas parcels were presented to two groups of refugees from the vocational training center whose students had demonstrated particularly strong commitment and excelled in their German courses. We are also supporting a project that offers assistance and help in organizing and managing everyday life for young, unaccompanied refugees who have had to leave their homeland and come to Germany without their families due to war, persecution, displacement, famine, or a natural disaster.

As for our cultural engagements, Wieland sponsors the world-famous Bamberg Symphony Orchestra, which represents the home of our headquarters as a musical ambassador all over the world, as well as the Bamberg University Association. Collaborating with universities is very important to us generally as a way of fulfilling our social and educational responsibility as a large company.

Our managers regularly teach at universities and institutions of higher education in order to bridge the gap between academia/theory and business/practice. Wieland employees also do voluntary work, as labor court judges, for example, or as volunteers with the voluntary fire department or with social and charitable associations. Wieland supports these activities both financially and by allowing time off work.

We are very keen to demonstrate social and cultural commitment as a dependable partner. When in doubt, we always place quality before quantity, and we are ready and willing to promote selected projects.



Corporate sustainability

Responsibility for the future

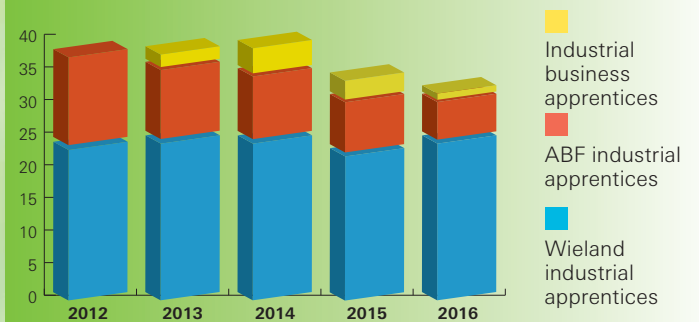
The professional qualifications successfully attained by our apprentices, who also regularly receive special distinctions from the Chamber of Commerce and internal awards, are ample evidence of the very high quality and popularity of the industrial training that is provided at Wieland.

Training and education

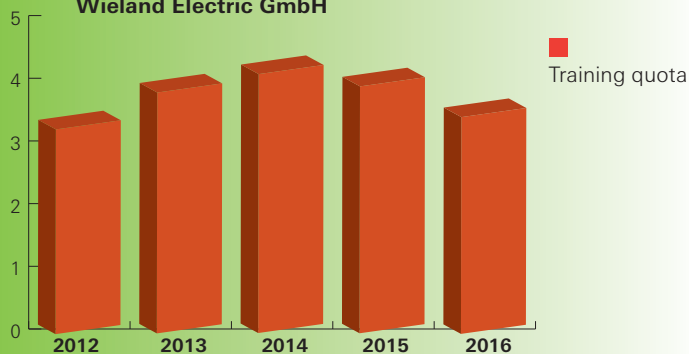
Since the fall of 2013 we have also been taking on apprentices with a background in European industrial business management, who we train at roughly 2-year intervals. We greatly value their in-depth language training, which is an excellent match for Wieland's strategic internationalization objectives. The share of apprentices who complete their training and immediately go on to become employees of Wieland lies at almost 100 percent.

Another testimony to Wieland's social commitment is the fact that nearly each year our apprentice training programs offer a number of vacancies for apprentices from the so-called "ABF Initiative", a program to support the integration of school leavers into the vocational training system. This allows young people whose school career has not gone entirely smoothly to profit from a good, solid vocational training.

**Number of apprentices 2012 – 2016
at Wieland Electric GmbH**



**Training quota from 2012 to 2016
Wieland Electric GmbH**



We also give our apprentices access to attractive additional offers while they are learning, such as apprenticeship projects dealing with current topics (e.g. apprenticeship film, apprenticeship blog, health project) or involvement in training fairs aimed at giving students and other interested parties a better understanding of their career profile, the training required, and what it means to belong to a future-oriented corporate group.

It obviously goes without saying that we prepare our apprentices well for the final Chamber of Commerce examinations. The professional qualifications successfully attained by our apprentices, who also regularly receive special distinctions from the Chamber of Commerce and internal awards, speak for themselves. Our company trainers also work as voluntary examiners on examination committees.

The quality of the vocational education available from Wieland can also be seen: this does not involve subject-specific qualification opportunities as enjoyed by our industrial workers. Employees working within all areas of the company can book attractive seminars

on the basis of the Wieland educational program in order to continue their education in languages, IT, soft skills and management tools, for example, through leadership techniques.

For young junior managers and aspiring specialists there is the option of completing a personalized sponsorship program through Wieland's own talent management scheme. This follows a further education concept over several years and prepares these high potentials for special duties within the company.

There is also a large project, up and running since 2013 under the title „Führungskräfte-Werkstatt“ (managers' workshop), which includes not only further education measures for managers and their deputies but also get-togethers and workshops aimed at improving the corporate culture as well as realigning and implementing strategy – including vision, mission, and values.

All these employee-related activities have been and continue to be refined constantly and purposefully on the basis of Wieland's own vision, mission and values.

We are happy to assume responsibility, with an entrepreneurial mindset and a customer-focused attitude in everything we do. Team spirit, dependability, mutual trust, and appreciation shape our interaction with one another. Open communication fosters motivation and personal initiative.



Environmental management

Clear policy – preserve values

Our actions are based on the environmental policy developed and published by the management.

Environmentally responsible conduct at every stage of the value creation process

The parameters for evaluating our environmental performance include not just the consumption figures for our production and operating materials and the data for the energy and resources we use, but also the results of the internal environmental audits that enable us to assess the effectiveness of our environmental management system.



Environmental management

Clear guidance for our actions

Environmental policy

- 1** Protection of the environment is an important mission for our company.
- 2** All employees are obliged to act in a way that protects the environment. We provide training and information to motivate staff to behave in an eco-friendly manner.
- 3** Compliance with official and legal requirements as well as our company guidelines underpins our environmental protection measures.
- 4** We conduct regular reviews to improve our management system continuously and to document our achievements. The defined environmental and energy targets are our benchmark.
- 5** In the event of deviations from our environmental policy, we intervene with appropriate corrective measures.
- 6** We plan, set up, operate, and develop our plant technology according to the latest technological advancements with a view to "improving energy efficiency".
- 7** We fully utilize technical and economic possibilities in order to avoid waste and emissions and to reduce energy consumption. Where waste is nevertheless produced, we examine recycling and recovery options for these substances. Non-recyclable waste is disposed of in an eco-friendly way.
- 8** We select, transport, store, use, and dispose of operating and auxiliary materials in line with environmental considerations. If we employ third parties for these purposes, we validate their technical know-how and reliability.
- 9** We use raw materials and energy in a manner that is as economical and as eco-friendly as possible. We pursue this goal from the development to the disposal of our products.
- 10** In all matters of environmental protection we cooperate with the public authorities, associations, and other technical institutions. We provide open and objective information on matters of internal environmental protection.
- 11** We provide our customers with appropriate information on environmental aspects relating to our products.
- 12** We pursue the target of involving our contract partners in improving our environmental performance.



Environmental management

Sustainable technologies – wind power plants

Our products are widely used in the context of “green”, sustainable forms of energy (solar and wind power).

Wind power plants

Spaces inside wind power plants have to be fully illuminated in compliance with standards in order to ensure that service personnel can climb up the tower safely, including in an emergency.

With its pluggable energy bus solution **podis®** Wieland Electric offers a system that is not only cheaper and quicker to install, but can be adapted very flexibly to individual tower models because of its modular structure. The components have international approval and are particularly suitable for use in the industrial environment worldwide.

The energy bus system is installed using a flat cable system that has already been partly pre-assembled at the factory. This is delivered to the tower builder as required for the project and then assembled and pre-installed in segments. Upon the erection of the tower, the system is simply connected using connectors.



Environmental management

Sustainable technologies – Heating, air conditioning, ventilation.

Technology for the environment & future

The start of the 21st century heralded a change of thinking. The challenge of countering global warming is becoming huge. One of the main tasks that must be fulfilled is to counteract the global increase in energy requirements.

Energy generation from fossil fuels is currently the main pillar of energy production. Given that the combustion of fossil fuels releases CO₂ which is harmful to the environment, it is important that the energy produced is used more efficiently and conserved. What is more, the fossil fuels available in the future will not be sufficient to cover the increasing energy requirements. For this reason, measures aimed at regenerative energy production are being promoted and extended worldwide.

No other industry already works with such an efficient mix of different energies as the heating industry. In ventilation and air conditioning, buildings are air conditioned using holistic approaches that avoid the loss of valuable heat to the outside.

Wieland has been one of the main suppliers in these sectors for decades. Offering a large number of specific solutions and innovative product developments, as well as intensive support, e.g. with changing requirements due to new equipment concepts or industry-specific standards, Wieland Electric is a strong partner.

To the benefit of all of us. For a green future.



Environmental management

smart installation – building installation

The environmental aspect of the Wieland product range is most visible when it comes to the certification of buildings by different companies. Wieland products, especially the systems, contribute to many of the ratings.

➤ Example: Who is certified, and how?

Green building certification is voluntary, unlike compliance with the EnEV and issue of the energy pass. The project is certified by the respective organization. Generally, construction and renovation projects are already monitored by the organization, which ensures that the targeted certification level is reached. The actual certification is then performed using point systems with checklists.

The *smart* installation concept excels here. From simple electrical connection to room automation with presence detectors and room thermostats, Wieland helps to create sustainable buildings. The pluggable electrical installation scores well in all areas, from planning, execution, and operation all the way through to renovation and demolition.

Flat cable systems and distributed automation reduce wiring expenses considerably. Besides being pluggable, the electrical installation also remains flexible during operation.

The use of room automation devices, especially presence detectors and room thermostats, plays an active role in helping to save energy. The most recent studies by Biberach Technical University produced potential savings in electrical energy of over 30% and in thermal energy of over 50% thanks to room automation. These values were calculated using seminar rooms at the university over two years during ongoing operation – without any structural measures!



Awarded "platinum".
Reference: "An den Brücken", Munich. ►



Environmental management

Sustainable technologies – Lighting technology

Across all areas of industrial applications, prefabrication and standardized interfaces reduce the effort involved in the initial installation and offer the flexibility needed for later changes.

Safe installation – quick and easy with a cohesive concept

The plug & play philosophy paved the way for the revolution in entertainment electronics and the introduction of IT into all areas of life. With the **gesis®** connector system, Wieland has been enabling the realization of customized plug & play concepts for the electrical installation of lighting systems in offices, stores, industry, and the outdoor world for the last 40 years.

Professional lighting solutions benefit from all the advantages that pluggability has to offer. The huge range of special components has been tailored to the requirements of our partners in the lighting industry. Fitters benefit from a time saving of 70% and 30% lower costs when using Wieland connectors. Luminaire manufacturers benefit from a smaller inventory, quick response time for variants, and simplified assembly.

Colored markings and mechanical codings enable clear assignments and prevent mismating. With **gesis®** system plugs, the electrical connection meets the requirements for a permanent connection in fixed installations as specified in the newly revised DIN EN 61535.

From the flexible distribution of power to the luminaire through to effective DALI control solutions for both indoors and outdoors, Wieland offers cohesive concepts and pluggable solutions that are optimized for the application in question. At the heart of the system lie our plug connectors and device connectors, supplemented by distribution elements, pre-assembled cables, and accessories.



Environmental management

Sustainable technologies – Mechanical engineering

New harmonized standards, such as EN ISO 13849, are placing new demands on mechanical engineers.

They are also creating opportunities.

Efficiency and safety

Globalization and the competition this has generated continue to place increasing demands on cost efficiency and time savings. At the same time, statutory health protection requirements have to be met. Wieland Electric can help you here.

Wieland Electric is not just one of the leading suppliers of safety engineering and connection technology, but also a trend-setting innovator and industry expert. With its in-house mechanical engineering operation and production lines at home and abroad, Wieland has accumulated know-how and a high degree of industry expertise over many decades.

Wieland has identified and resolved typical problems in the market. These include the many technical details that significantly improve the availability of a machine. Aside from this, the fulfilment of logistical needs and wholly individual customer requirements also makes Wieland Electric a strong and proficient partner in mechanical engineering.

From advice to component

Safety is becoming more and more of an issue for the mechanical engineer, partly driven by an increasing sense of responsibility in all of us. Legal regulations, such as machinery directives and the Ordinance on Industrial Safety and Health, have to be fulfilled.



Environmental management

Eco-friendly manufacturing processes

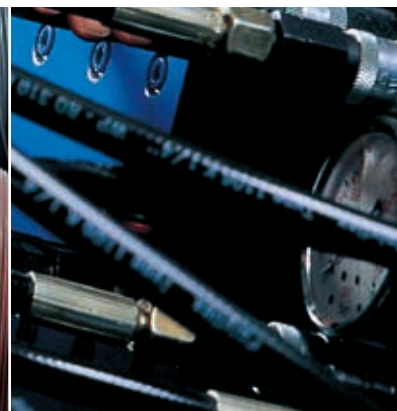
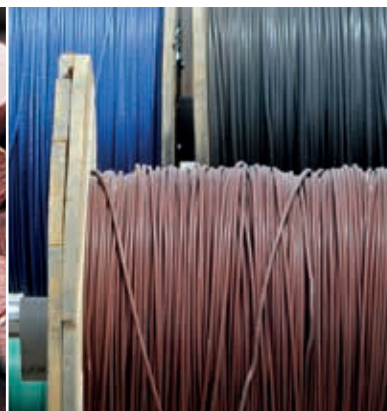
All aspects of environmental protection and health & safety are considered right from the start with the selection of the copper, steel, and aluminum alloys used.

Metalworking

We manufacture our metal components in very close proximity to residential areas, nature, and water, so we bear special responsibility for providing protection against noise as well as for keeping water, air, and soil clean.

The cutting and non-cutting production technologies we use, such as stamping, stamp-bending, drilling, milling, and turning, are reviewed and optimized continuously to minimize their impact on the environment and on health & safety. Electricity and compressed air are used efficiently; oil-based coolants are treated and recycled.

The filings and punching scrap accrued are all sorted, de-oiled, and recycled as raw materials.



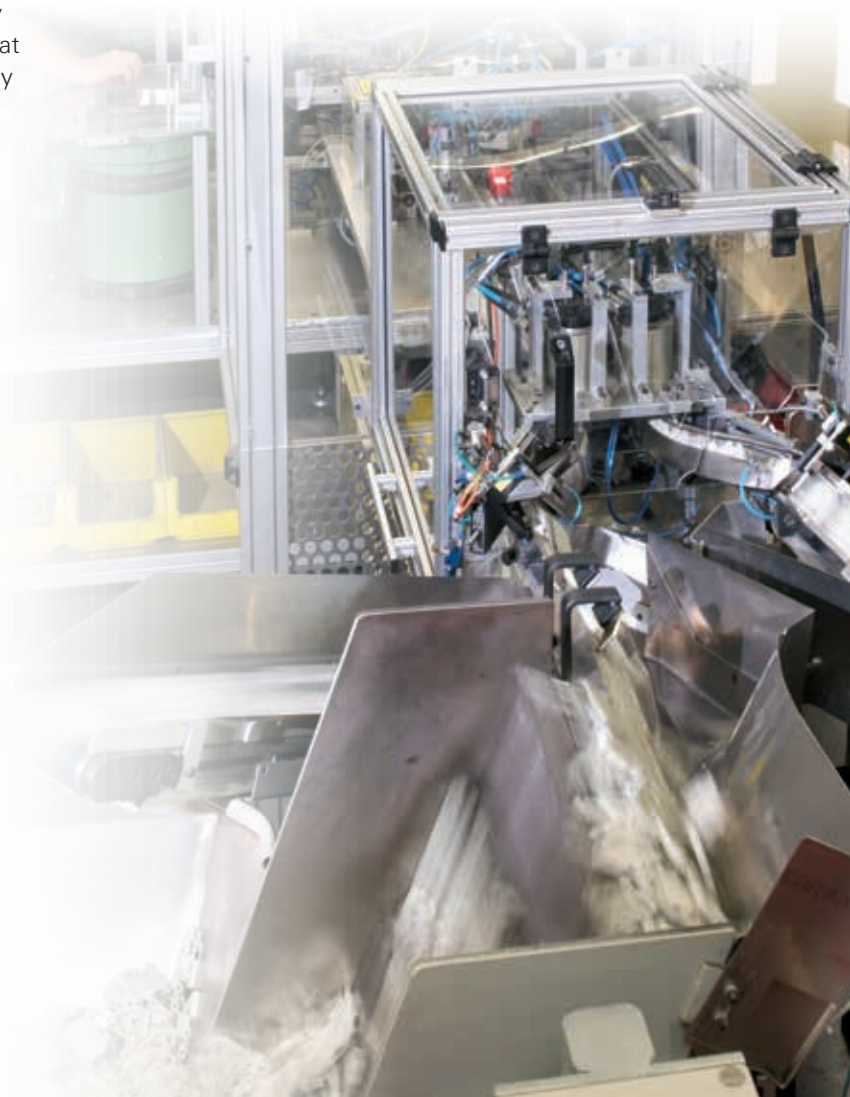
Plastics production

Thermoplastics are processed on fully automated injection molding machines.

Mechanical, electrical, and fire-protection properties are taken into account when selecting the plastics used, as are all environmental aspects. The priority is given to halogen-free flame-retardant plastics that exhibit an extremely low smoke density and toxicity during a fire. This aspect is becoming increasingly important.

The heat generated while processing plastics is extracted via plate heat exchangers and cooling towers. Energy input is minimized by using closed cooling systems to cool both the tools and the machines. This measure means that refrigerating units to cool the machines can be dispensed with all year round.

The sprue material accrued is recycled and integrated into the production process again in compliance with regulations.



Environmental management

Eco-friendly manufacturing processes

Electro-plating

Our electro plating process meets the state-of-the art production and environmental technology. Tin, zinc, copper, nickel and silver surfaces are applied on 6 bath lines.

The waste water treatment facility processes all the waste water generated from electro-plating in streams using electrolytic cells, heavy metal precipitation, and ion exchangers. The galvanic sludge accrued is recycled.



Average concentration of the constituents of processed waste water from the waste water treatment facility

Constituent	Unit	Measurement	Limit
pH value		7.71	6.5 – 10
AOX	[mg/l]	0.72	1
COD	[mg/l]	-	750
Chlorides	[mg/l]	0	100,000
Sulfates (external*)	[mg/l]	1,774	2,500
Sulfates (internal**)	[mg/l]	1,543	2,500
Cyanide (free)	[mg/l]	0.04	0.2
Copper	[mg/l]	0.15	0.5
Nickel	[mg/l]	0.18	0.5
Chromium	[mg/l]	0.08	0.5
Silver	[mg/l]	0.03	0.1
Zinc	[mg/l]	0.21	2
Tin	[mg/l]	0.05	2

* Result of annual measurement by the city of Bamberg for determining waste water levies
 ** Average measurement, fortnightly for self-monitoring

Source: Annual Waste Water Report 2016



Electronics production

Modules are made in electronics production from PCB assembly through to final device assembly.

Right from the development of new products as well as the implementation of production processes, attention is paid to the use of eco-friendly, RoHS-compliant components and resource-efficient plant technology. Ever since January 2005, all welding processes have been switched to lead-free filler materials.

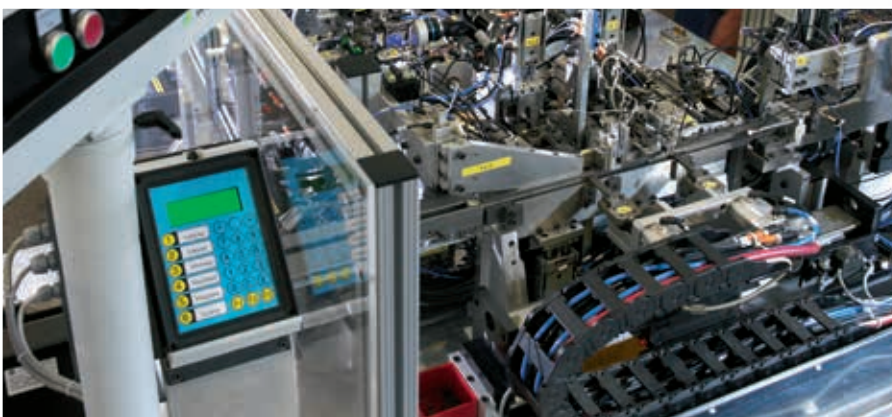
Energy-saving potentials are identified and realized; for example, the waste heat generated by equipment is fed back into the heating system.

Wherever possible, production waste is sorted and recycled.

The use of ultra-welding technology in housing assembly minimizes the consumption of adhesives.

Final assembly

The entire final assembly section is highly automated. Equipping the automatic assembly machines with integrated inspection and monitoring systems ensures extremely low reject rates and, as a result, low quantities of production waste.



Indicators

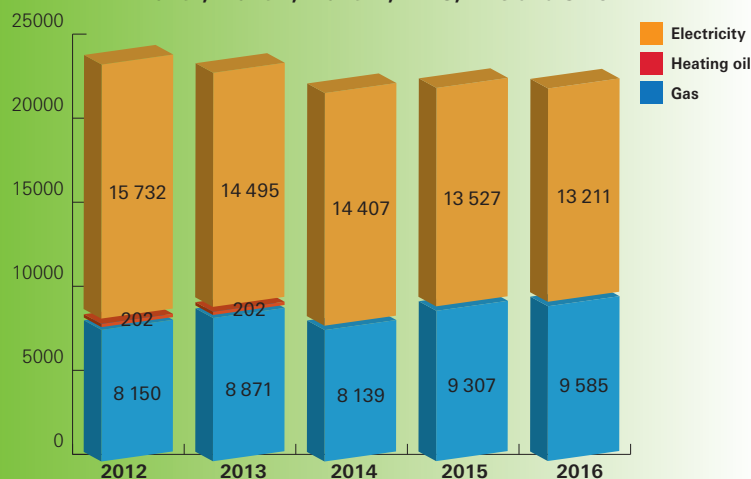
Energy input

Energy consumption in 2016 by plant

Total energy	Plant I	Plant II	Plant III	VMC	Wieland s.r.o.	Total
Electricity (MWh)	2,773	8,338	612	129	1,359	13,211
Gas (MWh)	2,134	5,059	637	595	1,160	9,585
Total (MWh)	4,907	13,397	1,249	724	2,519	22,796

Total energy consumption (MWh) 2012 – 2016

Plant I, Plant II, Plant III, VMC, Wieland s.r.o.



Energy

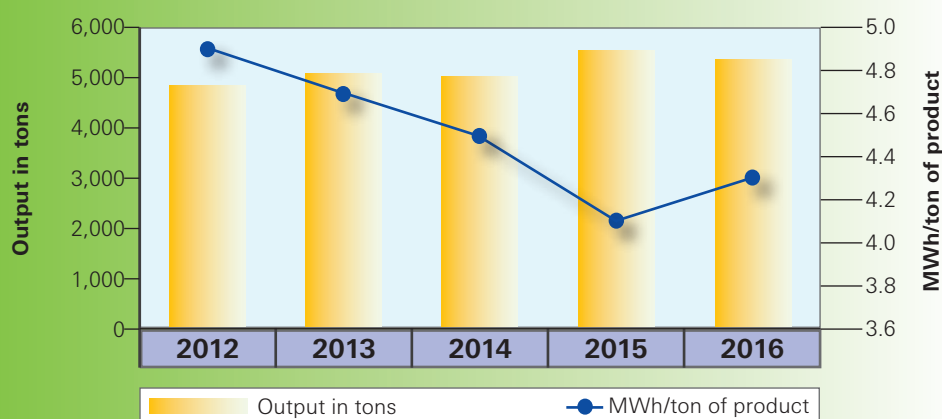
As a company with energy-intensive production processes, energy saving has become a top priority at Wieland, as also reflected in our environmental targets and program.

We exploit existing savings potentials by investing purposefully in energy-saving operating and production technology. Since absolute consumption quantities depend heavily on the utilization of production capacity and on climatic fluctuations, the indicator for energy consumption/manufactured product was introduced so the current values do not necessarily represent the savings in this area.

Aspects Energy Emissions

Indicator for energy consumption 2012 – 2016

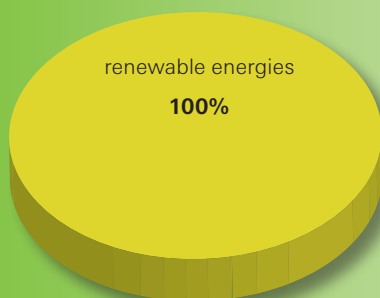
Plant I, Plant II, Plant III, VMC, Wieland s.r.o.



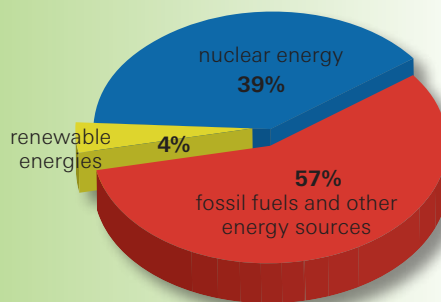
The energy consumption indicator shows the relationship between the total consumption of the individual energy sources (electricity, natural gas, heating oil) and the total product output.

Energy source mix and environmental impacts Electricity consumption in 2016

Bamberg location



Sokolov location



Year 2016	CO ₂ emissions (g/kWh)	Radioactive waste (g/kWh)	Source
Bamberg	0	0	STWB
Sokolov	490	0.0009	CEZ

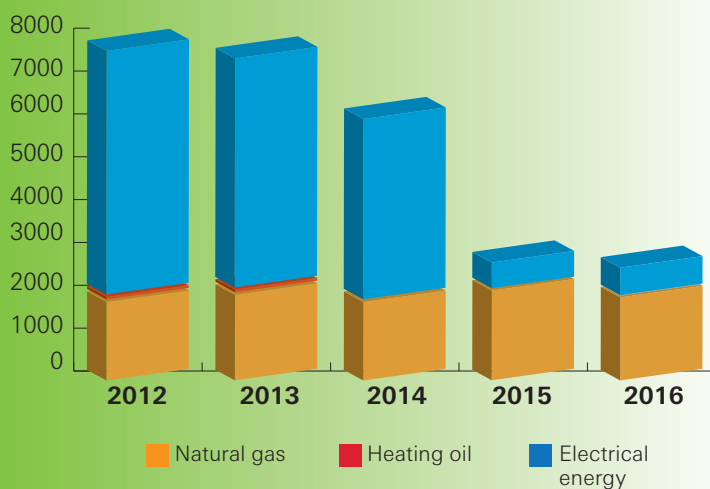


Indicators

Emissions

Emissions of carbon dioxide CO₂ (t) 2012 – 2016

Bamberg and Sokolov locations



Greenhouse gases

Of the greenhouse gases (CO₂, CH₄, N₂O, HFC, PFC, SF₆) only the CO₂ emissions from the consumption of electricity and thermal energy (natural gas, heating oil) are regarded as having significant environmental impacts.

The other greenhouse gases are also created during the combustion of fossil fuels, but the characteristic emission values are not known or are not measured and involve negligible quantities compared to CO₂. There are no direct greenhouse gas emissions or other emissions from our production processes.

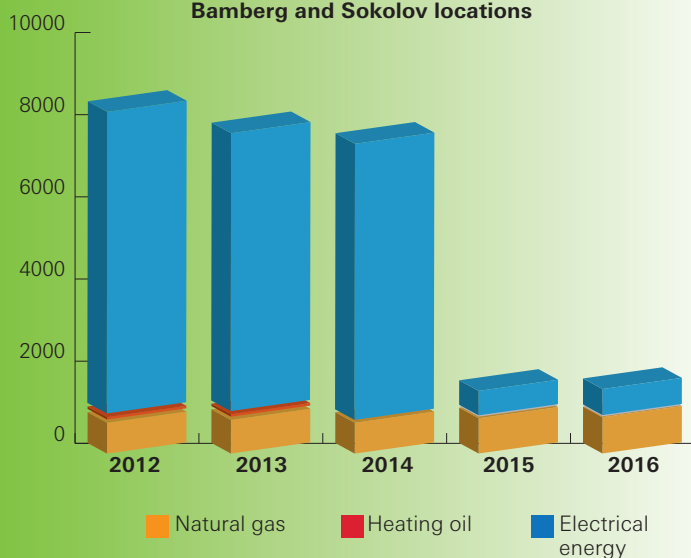
The conversion to 100% renewable energies by our power provider at the Bamberg site allowed a reduction of the total CO₂ emissions by 60%, of SO₂, NO_x and dust by 80% (per ton of product) as compared to 2014.

Sources:

- CO₂, SO₂, NO_x emissions of electrical energy: EnBW sustainability report 2008/09 + information from individual calculations
- Information according to Energy Act §42 from the energy suppliers STWB, CEZ
- Characteristic emission values: GEMIS (Global Emission Model for Integrated Systems V 4.5, 2009), Institute for Applied Ecology in Freiburg
- Federal Environment Agency 2010

Total emissions of SO₂ NO_x dust (t) 2012 – 2016

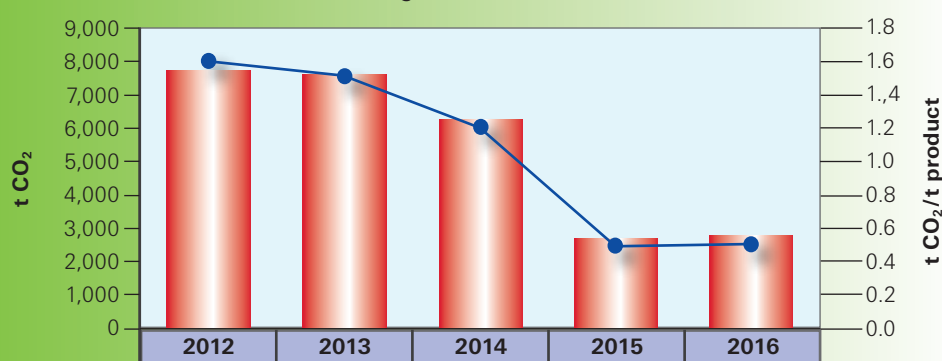
Bamberg and Sokolov locations



Aspects Energy Emissions

Emissions indicator for CO₂ 2012 – 2016

Bamberg and Sokolov locations

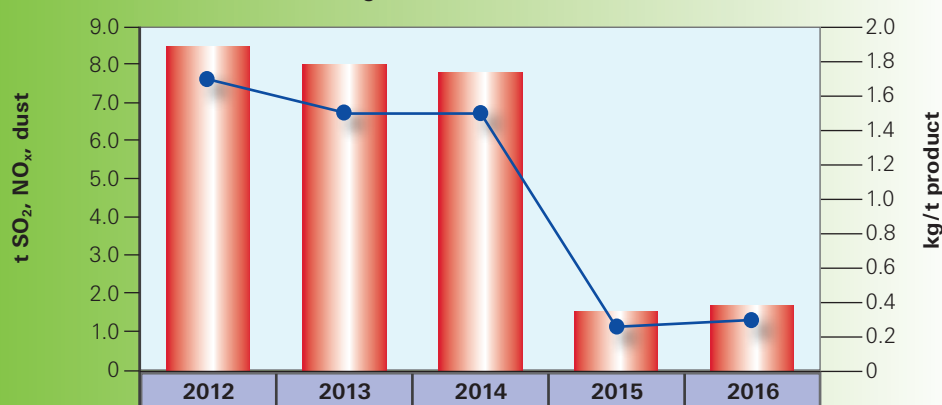


The emissions indicator for CO₂ shows the relationship between the total output of CO₂ of the individual energy sources (electricity, natural gas, heating oil) and the total product output.

■ t CO₂ ● t CO₂/t product

Emissions indicator Σ for SO₂, NO_x, dust 2012 – 2016

Bamberg and Sokolov locations



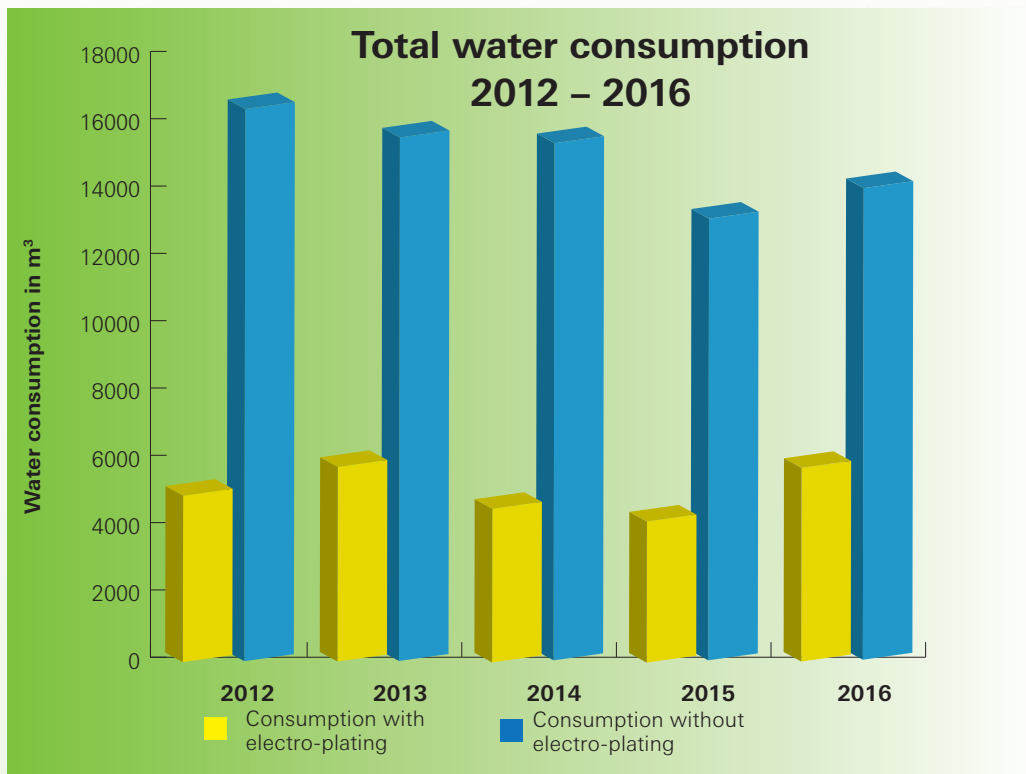
The emissions indicator for SO₂, NO_x and dust shows the relationship between the total output of these emissions and the total product output.

■ t SO₂, NO_x, dust ● kg/t product



Indicators

Water

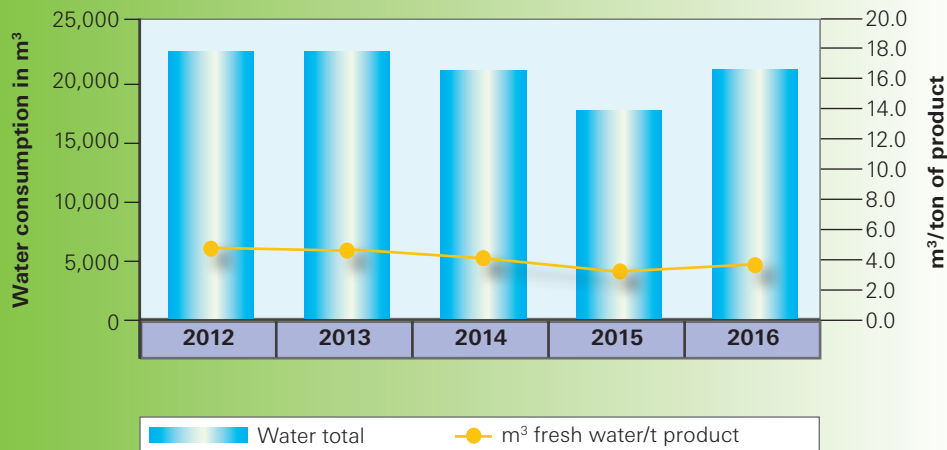


Aspects

Water

Indicator for water 2012 – 2016

Bamberg and Sokolov locations



The water indicator shows the relationship between the total consumption of water and the total product output.

Water

We feel obliged to use the resource water in a sustainable manner. We have therefore put a halt to the consumption of water for cooling purposes by switching to closed circulation cooling systems. As a consequence of this measure, water consumption has been in decline for years now at Wieland.

The process water needed in electro-plating is processed in separate streams in the waste water treatment facility commissioned in 2004 using the very latest waste water technology and fed into the sewer system, but only once the contents have been analyzed.



Indicators

Land use

Areal Data 2016

Plant I	Plant II	Plant III	VMC	Wieland s.r.o.	Wieland s.r.o.	Total
Administration	Plastics production	Cable assembly		Solokov	Lomnice	
Assembly	Metal production	Technical training center	Sales			
Dispatch	Surface finishing			Cable assembly	Warehouse	
39,700	40,860	8,229	6,718	7,040	1,436	Size of site 103,983 m ²
17,400	16,315	3,900	1,930	2,979	880	Built-over area 43,404 m ²
25,500	18,725	7,700	2,751	4,061	556	Fortified area 59,293 m ²
176,900	163,830	27,800	23,425	n. a.	n. a.	Structure volume 391,955 m ³

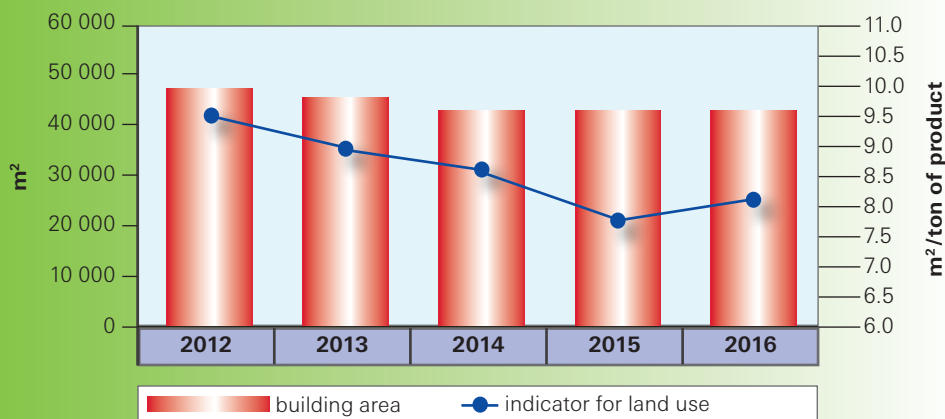


Aspects

Land use

Indicator for land use 2012 – 2016

Bamberg and Sokolov locations



The land use indicator shows the relationship between the built-over area and the total output of products. In 2013, the performance figure improved considerably due to the reduction of the storage area.

Buildings and infrastructure

Required traffic areas and car parks are not fully sealed but covered with grass pavers and paving with gaps to keep as much falling rainwater in the natural water cycle as possible.

All the facilities for handling water-pollutant substances are equipped with suitable impermeable floors and restraint systems and monitored regularly by internal inspectors and external experts.

Through investment in modern heating systems and renovation measures, the thermal energy consumption of the location has not risen in recent years despite significant sales growth and an increase in the production area.



Indicators

Waste

Waste 2012 – 2016

Hazardous waste (t)	(AVV) code	Σ 2012	Σ 2013 Bamberg + Wsro	Σ 2014 Bamberg + Wsro	Σ 2015 Bamberg + Wsro	Σ 2016 Bamberg + Wsro
Galvanic sludge, moist	110109	43.9	34.6	45.2	31.7	42.2
Paint shop waste	080117 080111	0.2	0.0	0.0	0.0	0.0
Erosion sludge filters	150202	0.4	0.1	1.9	1.2	0.5
Waste oils, emulsions, cold cleaners	130205 130802 120109 140603 130208	41.5	24.1	33.9	24.0	16.8
Operating materials containing oil, oil filters	150202 160 107	0.0	0,3	6.2	3.5	4.3
Dry-cell batteries/ accumulators	200 133	0.0	0.2	0.3	0.2	0.1
Small-quantity disposal	160 506	0.0	0.5	0.0	0.0	0.0
Aerosols, emptied	160 504	0.0	0.0	1.0	0.2	0.8
Solvents	140 603	1.2	2.0	0.0	0.5	0.9
Fluorescent tubes	200 121	0.0	0.0	0.0	0.2	0.4
Electro-plating filter paper	150 202	5.8	5.7	1.1	1.2	0.5
Packaging with residues	150110	2.4	3.0	2.1	1.0	0.4
Ion-exchange resin	110199	0.8	0.0	1.6	1.2	0.0
Total		96.2	70.5	93.3	64.9	67.0

Waste

The avoidance of waste is a top priority for Wieland. Where waste cannot be avoided, we look to recycle it using methods that are as high-quality as possible. The last resort is the disposal of waste in an environmentally sound manner.

Recycling and disposal are carried out exclusively by service providers who are able to produce a specialist waste disposal operation certificate or who have introduced an environmental management system. The criteria for selecting waste disposal companies also include references and the findings of our own evaluations.

The indicator for quantity of waste/manufactured product was introduced to enable an objective evaluation of the trend for this environmental aspect. The trend reveals a clear reduction in the share of waste as a result of rigorous avoidance strategies in product development and production.

Aspects Waste

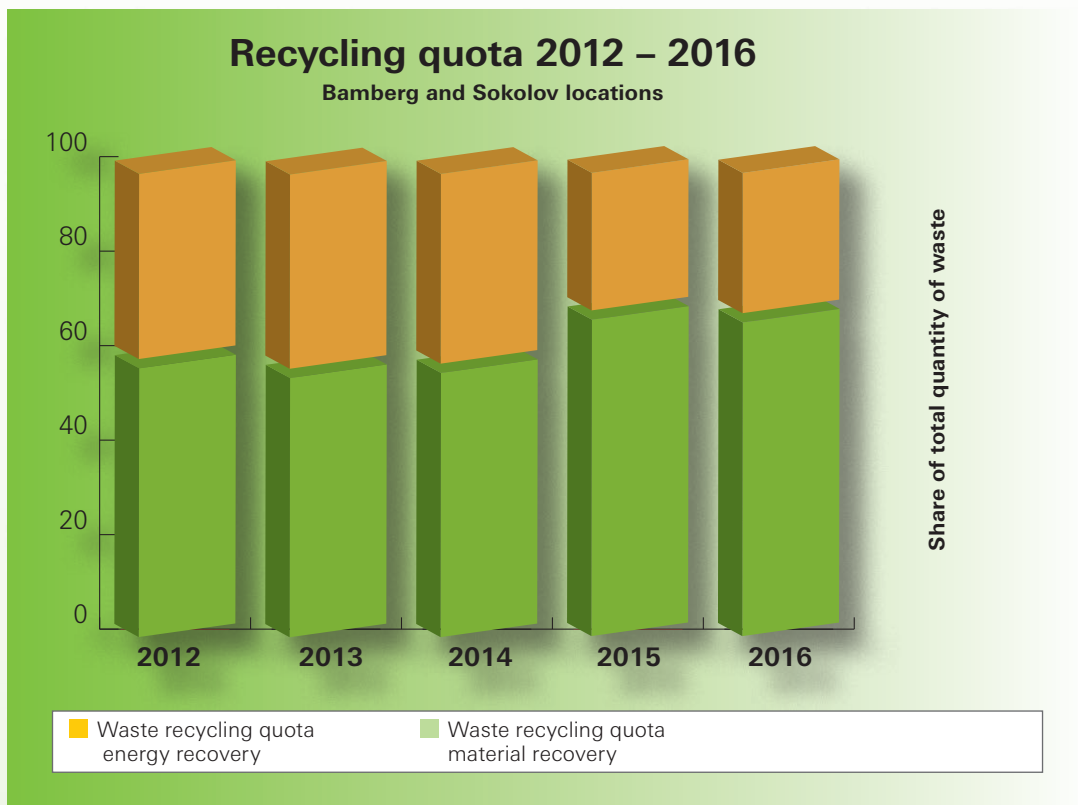
Waste 2012 – 2016

Non-hazardous waste (t)	AVV code	Σ 2012	Σ 2013 Bamberg + Wsro	Σ 2014 Bamberg + Wsro	Σ 2015 Bamberg + Wsro	Σ 2016 Bamberg + Wsro
Granulate sacks	150 105	0.0	0.0	2.8	4.1	4.6
Waste paper	150 101 200101	119.5	110.2	92.4	88.6	116.4
Scrap metal	170401 170402 170405 170 407 160104	55.8	35.3	24.7	58.3	55.2
Cable scrap	170 411	57.6	54.4	66.6	80.1	78.4
Assembly waste/ electrical and electronic waste	160 214 160 213 200135 200136	32.5	26.6	24.3	18.5	9.1
Commercial waste	200301	197.6	173.3	192.9	165.1	172.3
Burr waste to suppliers	120 103	771.5	706.4	741.9	764.0	708.5
Punch waste to suppliers	120 101 120 103	679.6	317.1	515.0	515.0	566.0
Plastic regranulates	200 139	3.1	0.0	0.0	24.4	26.8
Compostable waste	200 201	7.3	7.8	0.1	10.0	3.0
Natural wood waste	150 103	9.9	10.3	11.6	6.4	7.0
PE films	150 102	12.0	9.7	7.3	6.3	6.5
PVC cable sheath sleeves	200 139	0.0	11.2	17.8	19.3	15.7
Plastic waste	070213	40.8	46.1	20.5	46.7	51.0
Food residue	200 108	6.2	7.6	7.2	8.0	7.0
Fat separator contents	020 204	3.0	6.0	4.0	2.5	3.8
Construction materials	170802 160304 101208	9.9	0.4	5.9	1.1	0.1
Non-ferrous scrap	191203	1.0	0.0	0.0	0.0	0.0
Construction and demolition waste wood	170201	6.4	3.1	0.8	0.0	3.3
Total		2013.7	1525.4	1735.7	1818.5	1834.5
Total non-hazardous waste without metal recycling		563	502	479	540	560
Total waste		2109.9	1595.9	1829.0	1883.4	1901.5
Total waste [t] (without metal recycling component)		659	572	572	604	627



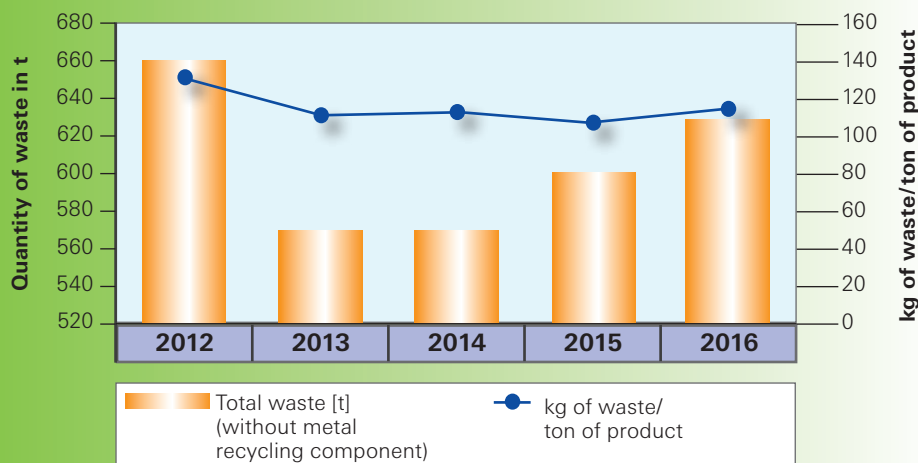
Indicators

Waste



Aspects Waste

Waste indicator 2012 – 2016



Waste indicator for hazardous waste 2012 – 2016



The waste indicator shows the relationship between the total quantity of waste/quantity of hazardous waste and the total product output.



Reporting and targets

Environmental targets 2016 – 2020

Environmental target	Project	Initial situation	Project data	
			Measure	Date of completion Measure planned
Energy savings/ Reduction of CO2 emissions	Relocation of Sales from VMC to Plant I	Energy consumption/a: 730,000 kWh CO2/a: 140 t"	Sales department moves into new premises in Plant I	June 16
	Optimization of pressurized air system, Plant I	Exchange of system due to service life is pending	Adaption of generation of pressurized air to consumed load by integrating compressor control and lowering the operating pressure of the system.	Dezember 16
		4 compressors, energy consumption 730,000 kWh/a	Replacement of one compressor with 132 kW output and 120,000 operating hours with 2 devices, each with 76 kW output and load-dependent cut-in/cut-out	March 17
	Exchange of lighting system in production, Plant II	T8 electronic ballast technology, 50 kW	Replacement of T8 electronic ballast technology with LED technology with daylight control (20 kW)	Dezember 17
	Saving of one truck in inter-plant transport due to trailers	Truck 12 t, 20 km/d ~ 15 l diesel 100 km	Switch to truck with trailer	June 16
Reduction of hazardous substances	Reduction of solvent consumption in the Sokolov plant	Use of solvents containing VOC for parts cleaning in 2016: 664 kg VOC	Replacement of solvents containing VOC with solvent-free, biodegradable detergents	January 18

This overview represents an excerpt of the current project list of Wieland Electric environmental targets 2016 – 2020.

Targets 2016 – 2020

Planned savings			Measure completed	Realized savings		
Energy savings [kWh/a]	Reduction of CO2 emission [t]	Reduction of waste quantity		Energy savings [kWh/a]	Reduction of CO2 emission [t]	Reduction of waste quantity
655,000	130		July 16	655000	130	
48,000	0		July 16	48000		
110,000	0		April 17			
198,000	0					
6,240	~ 2.5		July 16	6240	~ 2.5 t/a	
		10% (zu 2016)				



Reporting and targets

Status table with reference to the 10 principles

GRI indicator	Description	Covered by CSR report	Answer/reference to report
Economic performance indicators			
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Partially	Page 16 – 21
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	Partially	The management of each international location is made up solely of people of the nationality concerned; the employees come almost exclusively from the local area.
Environmental performance indicators			
EN1	Materials used by weight or volume	Comprehensively	Internal report
EN2	Percentage of materials used that are recycled input materials	Comprehensively	Internal report
EN3	Direct energy consumption by primary energy source	Comprehensively	Page 26 – 27
EN6	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives	Partially	Page 38 – 39
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	Partially	Page 38 – 39
EN8	Total water withdrawal by source	Comprehensively	Page 30
EN16	Total direct and indirect greenhouse gas emissions by weight	Comprehensively	Page 28
EN20	NOx, SOx, and other significant air emissions by type and weight	Comprehensively	Page 28
EN21	Total water discharge by quality and destination	Partially	Internal report
EN22	Total weight of waste by type and disposal method	Comprehensively	Page 34 – 35
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	Partially	Page 38
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	Comprehensively	No reclaiming of packaging, participation in VfW's Dual System
Labor practices and decent work			
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	Partially	Page 10 – 13
LA12	Percentage of employees receiving regular performance and career development reviews	Partially	100% at the Bamberg location
Human rights			
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	Internal report	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Internal report	Annual management training on issues, such as equality
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	Internal report	
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	Internal report	
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor	Internal report	
Society			
SO2	Percentage and total number of business units analyzed for risks related to corruption	Internal report	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures	Partially	Annual management training
SO4	Actions taken in response to incidents of corruption	Partially	No incidents in 2016
Product responsibility			
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	Partially	Monthly analysis of incoming customers' assessments by the head of Quality & Testing

Explanation	Targets	Reporting year
New products for use in the generation of "green" energy and in energy management inside buildings		2016
		2016
All indicators relate to the unit "ton of product".		2016
Recycling quota for Cu alloys approx. 50 %.		2016
Energy consumption by energy source for the Bamberg and Sokolov locations		2016
Environmental targets	Energy savings CO ₂ reduction	2016
Environmental targets	Energy saving through building management and use of energy-saving lighting	2016
Water consumption of the Bamberg and Sokolov locations		2016
Indicators of the Bamberg and Sokolov locations		2016
Indicators of the Bamberg and Sokolov locations		2016
Indicators of the Bamberg and Sokolov locations		2016
Indicators of the Bamberg and Sokolov locations		2016
Avoidance of prohibited and restricted substances		2016
		2016
		2016
	Supplier policy drafted.	2016
	Training for managers on how to work with the company guideline "Legal matters"	2016
	Extension of supplier audits to include Global Compact aspects	2016
	Extension of supplier audits to include Global Compact aspects	2016
	Extension of supplier audits to include Global Compact aspects	2016
	All locations were examined in 2012.	2016
	Aim: all executive staff	2016
		2016
		2016

Environmental reporting.

Certification according to EMAS

Wieland Electric is working to create uniform environmental management standards at all its locations.

➤ **Certification of the Sokolov location according to ISO 14001**

The Sokolov location is Wieland's largest production site. The aspects that are relevant in Sokolov – waste, water, emissions, handling of hazardous substances, emergency management, and energy consumption – are subject to statutory regulations comparable to EU requirements, though with partly divergent implementing rules.

In 2011, the Wieland Sokolov location passed an audit by DQS according to ISO 14001 for the first time and was issued with a certificate. As a responsible company that takes its obligation of prudent environmental management seriously in the interests of future generations, it is our declared aim to apply uniform environmental management standards at all our locations. This also sends out an important signal to all employees and customers about the value that is placed on environmental protection and health & safety within our company.

➤ **Material efficiency**

Wieland Electric currently produces and markets some 30,000 electromechanical and electronic products for industrial automation and building system technology in a wide variety of product groups. The input of feed materials is fully recorded and managed in the SAP system in the relevant quantity units (pieces, kg, meters, liters, etc.).

➤ **Environmental performance indicators**

The total output volume is recorded and managed as a quantity. To satisfy the requirements of EMAS III, Wieland Electric has calculated and published the required indicators based on the total production volume in tons, beginning with the Environmental Statement for 2011.

➤ **Compliance with legal regulations**

Information

An online environmental law database is used as a source of information on changes to environment-related laws and regulations that concern the company. Responsibility for observing these changes has been allocated to members of the environment team on the basis of the classification of the legal areas set out in this database. The scope of the team member's responsibility within the company is taken into account. Relevant legal changes are discussed at meetings of the environment team and any necessary measures are initiated for implementation.

Review of compliance

Compliance with legal regulations is reviewed via the regular internal audits and environmental inspections. The auditors used have the necessary expertise and qualifications.

The measurements, operating tests, and function checks for our electro-plating waste water treatment facility, as required under the Self-Monitoring Ordinance, are carried out by qualified staff. In addition, regular measurements are taken by an accredited environmental laboratory commissioned by the company as well as by the relevant environment agencies.



Gültigkeitserklärung SCC 832-17

der
Umwelterklärung
nach der
EG-Öko-Audit-Verordnung / EMAS
für die

Wieland Electric GmbH
Standort Bamberg



Erklärung des Umweltgutachters zu den Begutachtungs- und Validierungstätigkeiten

Der unterzeichnende EMAS-Umweltgutachter Dipl.-Ing. (FH) Jürgen Schmallenbach (Registrierungs-Nr.: DE-V-0036), akkreditiert oder zugelassen für den Bereich Herstellung von elektronischen Bauelementen (NACE-Code 26.11) und Herstellung von Elektrizitätsverteilungs- und -schaltanlagen (NACE-Code 27.12), bestätigt, begutachtet zu haben, ob der Standort bzw. die gesamte Organisation, wie in der Umwelterklärung der Wieland Electric GmbH (Registrierungsnummer D-106-00012) angegeben, alle Anforderungen der Verordnung (EG) Nr. 1221/2009 des Europäischen Parlaments und des Rates vom 25. Nov. 2009 über die freiwillige Teilnahme von Organisationen an einem Gemeinschaftssystem für Umweltmanagement und Umweltbetriebsprüfung (EMAS) erfüllt.

Mit der Unterzeichnung dieser Erklärung wird bestätigt, dass

- die Begutachtung und Validierung in voller Übereinstimmung mit den Anforderungen der Verordnung (EG) Nr. 1221/2009 durchgeführt wurde,
- das Ergebnis der Begutachtung und Validierung bestätigt, dass keine Belege für die Nichteinhaltung der geltenden Umweltvorschriften vorliegen,
- die Daten und Angaben der Umwelterklärung der Wieland Electric GmbH am Standort Bamberg ein verlässliches, glaubhaftes und wahrheitsgetreues Bild sämtlicher Tätigkeiten der Wieland Electric GmbH innerhalb des in der Umwelterklärung angegebenen Bereichs geben.

Diese Erklärung kann nicht mit einer EMAS-Registrierung gleichgesetzt werden. Die EMAS-Registrierung kann nur durch eine zuständige Stelle gemäß der Verordnung (EG) Nr. 1221/2009 erfolgen. Diese Erklärung darf nicht als eigenständige Grundlage für die Unterrichtung der Öffentlichkeit verwendet werden.

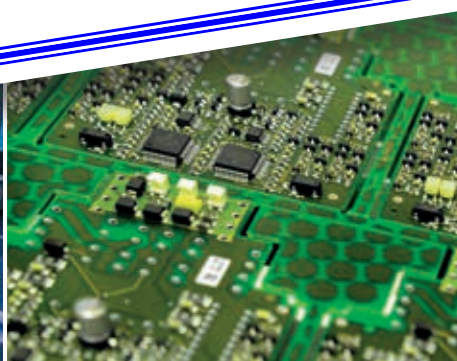
Jährlich werden aktualisierte Umwelterklärungen veröffentlicht.
Die nächste konsolidierte Umwelterklärung wird im Juli 2018 veröffentlicht.

Bamberg, Maselheim den 29. Juni 2017

Dipl.-Ing. (FH) Jürgen Schmallenbach
Umweltgutachter DAU-Reg.-Nr.: DE-V-0036

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