

**KLÜBER**  
LUBRICATION

your global specialist

## Sustainability at Klüber Lubrication 2018



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# A message from the Management Board

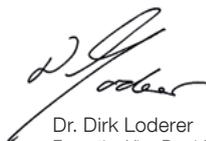
With our 2018 sustainability report, we want to show how we design our business processes responsibly with due regard to the needs and requirements of society and the environment. We do this in line with our key principle “Thinking of tomorrow today”, which has guided our corporate activities since the company was founded in 1929. As an expert in the lubrication of a wide variety of technically complex systems, Klüber Lubrication practises a culture that is driven by a passion for research and the pursuit of intelligent solutions, and which not only considers the technological aspects of production but also the resulting long-term effects on people, society and the ecosystems of our planet. We strive to find solutions for the future that help our customers achieve greater success.

The aim of our strategy along the value chain is to provide innovative solutions that help our customers achieve their goals while at the same time conserving resources. Along the value chain, this concerns our “footprint” which refers to those effects on the environment and resources that are connected with the procurement and processing of our raw materials and the delivery of our products. It also concerns the positive effects that our customers can achieve by using our products (we call this our “handprint”) and the disposal of our products. The key aspects of Klüber Lubrication’s approach to minimising its footprint and maximising its handprint are presented in the materiality matrix (see page 28).

In this third report, we document the further progress of our sustainability programme. This includes our alignment with the United Nations’ Sustainable Development Goals. In 2018, we also set ourselves the target of increasing the proportion of electricity we obtain from renewable sources, such as wind and sun, to 50 per cent by 2025.



Claus Langgartner  
Speaker of the Board,  
Executive Vice President Sales/Marketing



Dr. Dirk Loderer  
Executive Vice President Technology/R&D



Thomas Wieandt  
Executive Vice President Finance/Administration

## Sustainability as a part of Corporate Social Responsibility



The “Values & Principles” of our parent company, the Freudenberg Group define Corporate Social Responsibility as shown in the diagram and provide the framework for the specific sustainability programme of Klüber Lubrication.

Via Freudenberg, we also participate in the UN Global Compact. Its principles on human rights, labour standards, environmental protection and anti-corruption are also embedded in our “Values & Principles”. Compliance with regulatory and ethical principles is covered by a separate Code of Conduct. In the selection of suppliers, we take into account ethically acceptable purchasing management.

It goes without saying that we proactively address the regulatory requirements that apply to our industry such as REACH (one of several European regulations concerning chemicals). As a company in the chemical industry, we also observe the principles of Chemie<sup>3</sup>, the sustainability initiative of VCI – the Association of the German Chemical Industry. In addition, Klüber Lubrication is one of the founding members of the German lubricant industry’s sustainability initiative (NaSch), launched by the German Association of the Lubricant Industry (VSI).

## Acting in accordance with UN goals

Since 2018, we have engaged more intensively with the UN Sustainable Development Goals (SDGs). Based on the targets and indicators of the 17 SDGs, we analysed which of the SDGs Klüber Lubrication could make relevant and direct contributions to along the value chain. In the following, we focus on SDG 12 “Ensure sustainable consumption and production patterns”, which enables us to clearly show our impacts along the value chain.

Our key contribution to this goal consists of promoting resource and energy efficiency along the value chain. Starting with the selection of raw materials and the manufacturing of our products, we can directly contribute towards reducing negative environmental impacts through our own activities. In doing so, our efforts go well beyond our contributions to SDG 12. We have set ourselves the ambitious target of increasing the proportion of electricity we obtain from renewable sources to 50 per cent by 2025 and have underpinned this with a package of relevant measures.

In addition, we are helping our customers achieve SDG 12 by providing support for efficiency improvements so that they can meet their sustainability goals. Through our KlüberEnergy service, we can already quantitatively and therefore reliably verify the contribution of our solutions for part of our business. As well as energy efficiency, our products contribute significantly towards improved resource management for our customers, primarily as a result of extended maintenance intervals and lifetime lubrication.

Examples of this can be found from page 10 onwards.



- Freudenberg Values & Principles
- Areas addressing responsibility issues / topics
- Operational processes and initiatives along the value chain (e.g. related to the UN Global Compact)
- Initiatives beyond the value chain

# Sustainability as a part of Corporate Social Responsibility

We expressly welcome the SDGs as a guide for the promotion of sustainable development. In addition to the direct contributions as part of our business activities along the value chain, which we highlight here, we also consider the SDGs to be an important guide for our efforts to promote sustainable development. This shared understanding with suppliers, customers and other stakeholders provides a supportive basis for our activities.

## Sustainable development through innovation

Sustainable business activities depend to a large extent on innovation and efforts for continuous improvement. Research, development, new test procedures, modern resource-conserving production processes, environmental protection, health and safety, product and user safety, environmental compatibility and many other areas are at the focus of our investment policy. Experts from a number of different departments proactively consider future trends, market development, standards and regulatory requirements at all points along our value chain. Our products contribute significantly to the preservation of economic values by minimising friction and wear.

We help our customers in achieving their targets. This happens, for example, by saving energy, cutting emissions, reducing waste production, conserving resources, extending maintenance cycles, reducing downtimes of machinery and plant, decreasing the lubricant quantities required for efficient operation and in many other ways. We can help our customers achieve their own sustainability targets faster.

## Networked thinking for safety, quality, environmental protection and occupational health

We are a learning organisation and feel equally responsible for the safety and well-being of our employees and of the people who use our products. We do not consider our own internal value chain – from raw material purchasing through research and development, production and logistics, to customer service and the value chain of our customers – in isolation, but as a networked system consisting of interacting processes. Our corporate responsibility demands we examine the totality of relevant influencing factors and regularly review and measure our approach also with regard to potential for improvement.



## Klüber Lubrication – the company

Speciality lubricants for OEMs are our core areas of business. We offer our customers competent tribological solutions. Our products are distributed to customers in virtually all industries and regional markets, almost exclusively via direct sales channels. Our customers include manufacturers of components, assemblies, machinery and plants, as well as operators of machines and plants. Klüber Lubrication was established in Munich in 1929 by Theodor Klüber and has the colours of the Bavarian capital (yellow and black) in its logo. The company's headquarters are still located in the city. Our employees serve our customers throughout the world. Our sales specialists are in continual contact with their counterparts in our customers' organisations. Together with the customer, they develop ideas for new speciality lubricants that are more efficient, more economical and more environmentally compatible. The company generates more than 80 per cent of its sales outside Germany and manufactures products at 12 production facilities worldwide..

## Dialogue with the customer

Direct support for all our customers is of crucial importance to us. Global, specialised sales organisations react flexibly to the individual requirements of the customers concerned. This applies to solutions that are developed in response to the requirements of global and regional customers with a specific performance profile.

## We put ourselves to the test

All production plants are certified to the relevant standards (see facts and figures at a glance, page 22). Independent audits of environmental management and occupational health and safety are carried out in all locations. In 1996, our headquarters was the first facility in Munich to receive an environmental certificate in accordance with the Eco-Management and Audit Scheme (EMAS). More and more of our products are winning awards for their environmental compatibility.

## Klüber Lubrication – a member of the Freudenberg Group

Since 1966, we have been part of the Freudenberg Group, an internationally active, family-owned technology company founded in 1849 by Carl Johann Freudenberg. Klüber Lubrication is a division of Freudenberg Chemical Specialities SE & Co. KG, a Business Group of Freudenberg & Co. KG, Weinheim.

## Sustainably responsible – holistic thinking

We consider the economic, environmental and social impact of our conduct with respect to the value adding processes of our own organisation, our customers, business partners and suppliers. We take interactions into consideration with a view toward creating unparalleled added value for our customers, while at the same time avoiding, to the greatest extent possible, any impact on the opportunities enjoyed by future generations. Our aim is to use resources as efficiently as possible in order to ensure that demand for resources can continue to be met in the future. In as many areas as possible, we save more resources than we actually use in the manufacturing of products.

## Networking people

Our principles, with respect to **“leadership and co-operation”**, aim to ensure transparency for our employees. Key elements in this approach include clear instructions, trust, rapid decision-making, process-oriented thinking beyond departmental boundaries, future and customer orientation, cooperation on functional international teams, respect for different cultures, diversity and inclusion, and the willingness of employees to assume responsibility for their own action. In addition, we are open to external suggestions and cooperate with independent research institutions and universities for certain technology platforms.

# Sustainability as a part of Corporate Social Responsibility

## Social commitment throughout the world

We are committed to social responsibility in all the countries and communities where we are active. We either implement projects in this area under our own responsibility or participate in initiatives of Freudenberg, our parent company. For example, the **e<sup>2</sup>** social programme launched by Freudenberg in 2015 is supported by our employees. **e<sup>2</sup>** stands for **education** and **environment** and supports relevant projects wherever Freudenberg is active.

One category of the Freudenberg **“We all take care” awards** honours projects devoted to social responsibility, for example by improving living conditions or environmental protection. Initiatives of our employees have been among the award-winners on several occasions.

## Reforestation programme in Mysore

Around 100 employees of Klüber Lubrication and our Freudenberg sister company Chem-Trend have taken part in an extensive reforestation project in India. Between 2016 and 2018, they planted more than 2,000 seedlings around the Blue Mountain on the outskirts of Mysore. In the past, the foothills of the mountain were regularly burnt down as part of a religious ritual.

The employees of both companies planted 500 new seedlings in 2018. In addition to preparing the soil, the team's tasks included regularly monitoring the growth of the trees. Participants estimate that the new plants will produce around 200,000 kilograms of oxygen annually in a few years' time.

For this project, the project team received this year's “We all take care” award, which is presented annually as part of Freudenberg's company-wide initiative.

## Broadening horizons – conserving resources – protecting the environment

As a producer of speciality lubricants that currently use mainly non-renewable fossil raw materials, we are committed to deriving the greatest possible benefit from the resources used. One of our key principles is careful, economic use of raw materials. We follow this principle in the design and modernisation of our production facilities and the manufacture and use of our products. For example, we monitor our material and energy consumption, as well as the waste and emissions generated by our activities. Our aim is to use resources as efficiently as possible in order to ensure that demand for resources can continue to be met in the future. We work hard to avoid critical raw materials, even if their use would be permitted for the application concerned in accordance with the state-of-the-art and relevant chemical-related legislation.

## Focus on sustainability – measuring and assessing optimisations

Speciality lubricants based on mineral or natural oils are normally not only consumables but also components that make the operation of machines, plants and other components possible. Our processes aim to minimise our **footprint** at the same time as we maximise our **handprint**. This calls for a strong culture of innovation. Our objective is the precise analysis of all relevant operational processes in connection with the development or modification of products and services, with respect to their sustainability over the entire value chain. Our **sustainability scorecard** for innovations is one step in this direction. This scorecard considers the life cycle of the product and the intended product features. Our entire value chain is taken into consideration in a proactive way, including:

- raw materials and additives,
- processing and production,
- packaging,
- transport,
- benefits to the customer and
- waste management.

Our footprint and the benefit to the customer are assessed in relation to each other. If this relationship is unfavourable, work on a development project is not normally continued. The diagram below shows as an example, the benefits that can be achieved with respect to the footprint and the handprint. The left-hand column indicates the fields of action or “materialities” (see also Klüber Lubrication materiality matrix, page 28). This simplified presentation is intended to indicate the possible benefits of a life cycle analysis.

		FOOTPRINT			HANDPRINT	
		Sourcing	Production	Transport	Use	End-of-life
<b>Materials</b> 		Raw material selection			Compliance with regulations	Innocuousness
<b>Waste</b> 			Reduction of waste		Lifetime lubrication	Disposal/ recycling
<b>Energy</b> 			Less consumption		Reduces energy consumption & emission savings	
<b>Emissions</b> 		Local sourcing		Local production		
<b>Water</b> 			Less consumption/ water protection		Biodegradable products	

Always in the spotlight –  
our handprint with the customer



Klüber Lubrication succeeds in combining sustainability and customer benefit, for example, through significant energy savings. Some examples are presented on the following pages:

## Water as a lubricant – is that possible?

People associate lubricants with greases and oils, and have done so quite rightly for centuries. We have now been able to open a completely new chapter in the catalogue of speciality lubricants: our new hydro lubricants. Here, we have succeeded in developing homogeneous lubricants that contain water as a functional component, thereby making the positive aspects of water usable. This offers enormous benefits not only in terms of the sustainability of the lubricants, e.g. saving mineral oil, but also as regards performance. This revolution in lubricant technology has also been recognised by the German Design Council, who presented Klüber Lubrication with the German Innovation Award in 2018.

### **Example:**

The first hydro lubricant for enclosed industrial gears combines high performance and sustainability. In addition to optimised friction behaviour, our customers benefit from an excellent cooling ability that helps reduce the temperature in gear units, thus making an important contribution to energy efficiency and energy savings.



# Always in the spotlight – our handprint with the customer

Lifetime lubrication reduces the use of raw materials and relubrication expenditure

Apply lubricant once and never think about it again – this is the principle of **lifetime lubrication**. In specific applications, highly developed speciality lubricants ensure that everything works perfectly over the entire service life of the machine or component. The lubricant does not need to be replaced. This approach reduces raw material use during the service life of the machine or component and the quantity of oil waste that has to be handled.

**Example:**

Rolling bearings are among the most important components of machines used in a variety of industries and applications. The lubricant used is a key factor in the service life of the bearing. Greases developed specifically for rolling bearings are designed to prevent early bearing failure as a result of wear and corrosion. In the automobile industry, these products ensure that bearings can last for the entire life of the vehicle once they have been lubricated.



## Shorter downtimes for greater productivity and conservation of resources

Relubrication – our customers' technicians normally think of work for themselves when they hear this word. Usually, relubrication means that a plant needs to be shut down. In certain applications, regular lubrication is necessary as a result of the design of equipment. This approach is referred to as “total-loss lubrication”. Before components such as conveyor chains are lubricated, they must be clean. Nevertheless, components such as conveyor chains, bolts and roller bars need to be cleaned regularly. Our special oils developed specifically for this scope enable cleaning and relubrication to be carried out at the same time without shutting down the plant. This significantly reduces the need for mechanical cleaning or chemical cleansing agents. The positive economic side effect: the length of maintenance downtimes can be reduced, thus increasing the efficiency of the plant, and energy and maintenance costs are also saved.

### **Example:**

Clean, smooth-running chain carpets, bending rods and bolts are key components of the presses used for the continuous production of fibre board. Klüber Lubrication has developed a high-temperature oil for cleaning and lubrication that is outstandingly well-suited to applications of this type. The speciality lubricant not only has excellent wear protection properties but also dissolves pasty residues and flushes them out. This reduces the resources required, allows trouble-free operation of the press and significantly shortens downtimes caused by maintenance.



# Always in the spotlight – our handprint with the customer

## Longer service lives

Owners can only be satisfied with environmentally compatible renewable energy facilities, such as wind power plants, if they run continuously for long periods without interruption. In this context, our customers can be satisfied. Thanks to Klüber Lubrication, their facilities are highly efficient and require little maintenance. Speciality lubricants ensure less friction and wear on moving parts, resulting in longer maintenance intervals and therefore reducing downtimes and the use of resources.

### **Example:**

Our speciality lubricants for highly stressed rolling and plain bearings on wind turbines reduce the number of shutdowns required, significantly boosting productivity. In addition, these products protect the rolling bearings against wear and prolong their service lives. Less material is used and less waste is produced. This reduces the operator's costs in terms of repairs, spare parts and used grease disposal.

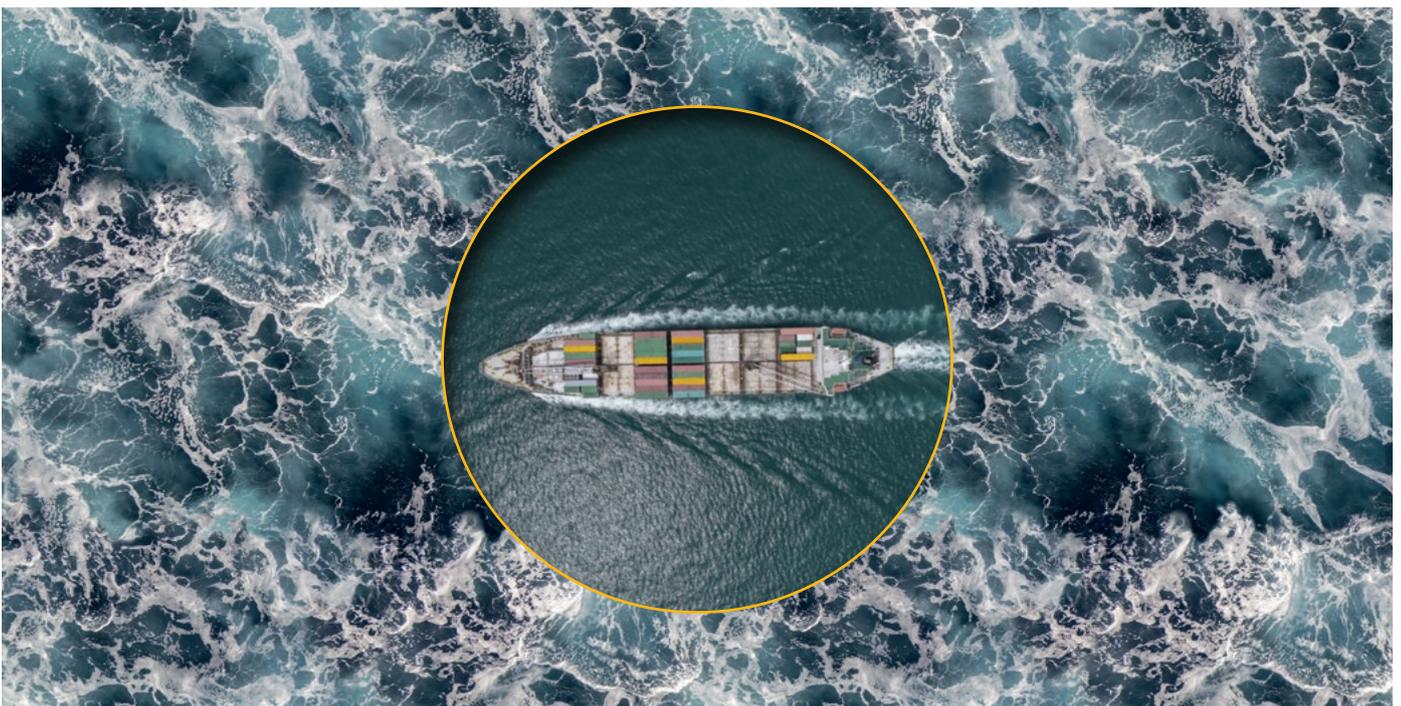


## Environmental protection – also in the ocean

The protection of sensitive marine ecosystems is a key objective throughout the world. Many countries are adopting measures to protect the seas against pollution. Lubricants, which are indispensable in shipping and offshore plants such as drilling rigs, may come into contact with sea water. If this happens, it is essential to prevent environmental damage. For more than 20 years, Klüber Lubrication has been developing biodegradable products. These facilitate the use of advanced technologies possible in sensitive ecosystems without causing damage. Shippers and ship owners benefit from tested safety, while also meeting the requirements for environmentally compatible lubricants in the areas of biodegradability, toxicity and bio-accumulation.

### **Example:**

Klüber Lubrication has developed a special lubricating grease specifically for manufacturers and operators of marine equipment in contact with sea water, such as anchor winches. The oil used for this grease is produced from renewable raw materials and is biodegradable. This means that the environmental damage caused by leakages and contact with sea water is significantly reduced. The excellent adhesion and water resistance of the lubricant also prolong lubrication intervals, cutting costs and protecting the environment.



# Always in the spotlight – our handprint with the customer

## Plant oils are no solution – or are they?

Straight from the plant to the machine – this is a dream that is currently not feasible, at least if the application is demanding. The use of renewable lubricants including plant-oil-based products is becoming increasingly important, but volumes of these lubricants so far are still very low compared with those of petroleum-based lubricants. This is mainly because plant-based lubricants only have limited suitability for technically demanding applications to a limited extent. However, Klüber Lubrication has achieved success in this difficult area.

### **Example:**

One of our speciality lubricants consists of 90 per cent sunflower oil, a renewable raw material, and is biodegradable. This means that our customers in areas such as papermaking, cement production or mining can replace conventional petroleum-based lubricants and take a major step towards greater sustainability without sacrificing performance.



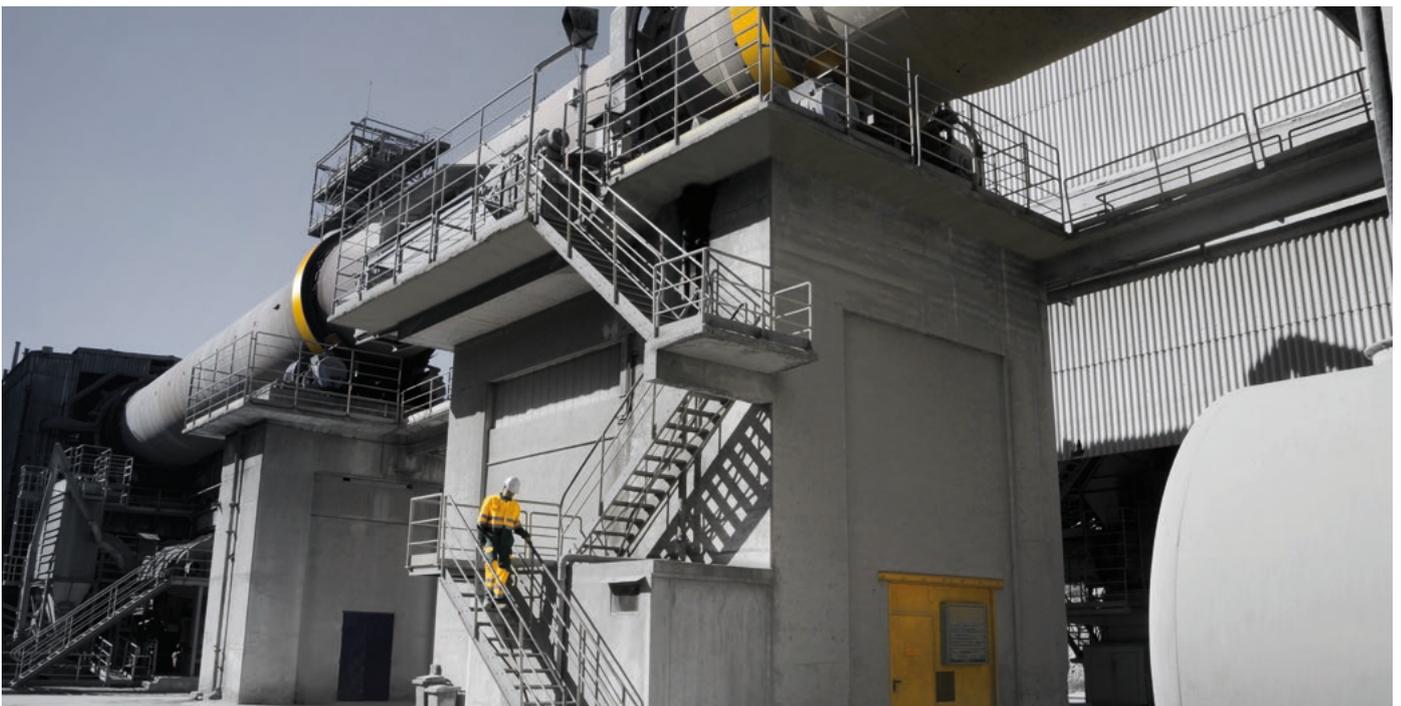
## Low input – high output

Less is more. That also applies to lubricants. If you can achieve reliable lubrication with a small quantity of lubricant, you will reduce raw material consumption, material input, waste volumes, acquisition and disposal costs. In metalworking and in the lubrication of gears, our customers also achieve considerable cost benefits without any detrimental impact on the safety and service life of their plants.

### **Example:**

Many machines in the commodities industry, in cement production, for example, are operated using large gear drive systems. The right lubricant plays a key role in the operation of these systems. Klüber Lubrication developed special lubricants for these applications back in the 1990s. With application-by-spray systems, these lubricants can reduce consumption by up to 50 per cent compared with the adhesive lubricants previously used.

Klüber Lubrication has also developed biodegradable lubricants from renewable raw materials for these applications. These extremely sustainable lubricants ensure outstanding machine protection.



# Always in the spotlight – our handprint with the customer

## Food products without critical oils and greases

This may sound like a diet, but it is actually an approach that protects the consumer and our customers. Lubricants used in the food, pharmaceutical and drinking water industries need to be safe for consumers. This ensures risks to users are avoided and, at the same time, our customers benefit from high process and product safety.

However, a safer lubricant is not in itself sufficient: a comprehensive analysis of production and maintenance processes and a specific risk assessment of lubrication are key to protecting the operator in production and the consumer, and to conserving environmental resources. We have developed new technical solutions and digital tools that help our customers achieve their sustainability goals.



### Examples:

Confectionery is manufactured in production facilities that combine various production steps. This means different lubricants are often required. A digital maintenance tool recently developed by Klüber Lubrication enables our customers to reduce this complexity and manage their lubricant planning easily and intuitively. The advantage: it is easier to adhere to regulations and compliance rules. In addition, lubricant consumption can be precisely monitored and efficiently limited to the minimum amount required.

In the beverage industry, belt conveyors transport bottles, cardboard boxes and other containers 24 hours a day. Constant lubrication is necessary to keep the belts running. Most existing lubricants leave residues with repeated application and these need to be removed using a large amount of water and chemicals. Klüber Lubrication has developed new conveyor belt lubricants that produce significantly less residue. This results in less cleaning and thus longer maintenance intervals and much lower consumption of water.

Bread, biscuits, cakes and other baked products are produced in industrial bakeries under very special conditions. High-performance chain lubricants have been developed for these applications. They are not only compatible in the event of unforeseen contact with foodstuffs but also resist the high temperatures found in industrial ovens. Up to 250 °C, they provide reliable lubrication for drive and conveyor chains and also help to extend the service life of the chain thanks to outstanding wear protection, low residue formation and reduced vapor formation.

## Energy savings thanks to high-quality products and services

With our range of KlüberEnergy services, we help our customers significantly boost the efficiency of existing machines, thereby saving energy, CO<sub>2</sub> emissions and the related costs. An analysis of customers' systems is used as a basis. Our experts select the appropriate speciality lubricant depending on operating parameters. This enables friction to be reduced, the temperatures of components to decrease and overall energy efficiency to increase. For this purpose, Klüber Lubrication is developing lubricants that are specially optimised for energy efficiency, such as a new turbine oil for hydroelectric power plants.

Combining the right product with lubricant management that is adapted to the specific requirement also significantly extends the lubricant replacement intervals. This means that annual waste disposal volumes can be significantly reduced and the efficiency of materials and resources increased.

Klüber Lubrication is going a step further. In order to give our customers complete transparency in terms of savings, we provide evidence of these which has been accurately measured and is in line with international standards. This means our customers have both a solid basis for investment decisions and also an improvement measure that they can introduce as part of their ISO 50 001 certification. The savings generated and documented with the KlüberEnergy service amounted to approx. 135,000 MWh in 2018, which is equivalent to 23,000 t of CO<sub>2</sub>. This includes only those energy savings that we make possible as part of KlüberEnergy service projects and are able to prove based on the measuring method used. Even though this involves only a relatively small part of our business, we are already achieving the above-mentioned significant savings here. If a value of 2.5 kg CO<sub>2</sub> per litre of petrol\* is applied, the quantity of CO<sub>2</sub> saved corresponds to a saving of 9.2 million litres of petrol. At a consumption rate of 8 litres per 100 km, this means a motor car could drive round the world 2,875 times.



## Minimising our footprint



As part of an ethically sound procurement management approach, Klüber Lubrication expects its suppliers to act responsibly when dealing with people and the natural environment. Our ethical standards for suppliers include social, health-related, safety, environmental and economic aspects and are aligned with international agreements and principles such as the UN Global Compact. Only companies who commit to abide by these standards are permitted as suppliers. However, we do not have direct control over all the relevant factors in our suppliers' value chains and we cannot reliably quantify them.

We determine our footprint by systematically recording data and information. This includes, for example, data on raw material, water and energy consumption, as well as on waste and emissions produced by our in-house activity.

### Green electricity: a key component of a smaller footprint

We not only help our customers lower their energy consumption\*, but also actively reduce our own CO<sub>2</sub> emissions.

A recent example of this is the installation of a combined heat and power plant at our new logistics centre in Maisach, which supplies both heat and electricity and is highly efficient.

But even though we want to continue reducing our relative energy consumption and the resulting CO<sub>2</sub> emissions\*\*, we still need energy for our processes. We have set ourselves an ambitious target with regard to electricity: globally, at least 50 per cent should come from renewable energy by 2025. Naturally, we aim to increase this amount further still. One way of achieving that is to sustainably generate our own electricity.

That is why we installed a solar power system in Mexico in 2018 which began operating at the beginning of 2019. The 2,800 m<sup>2</sup> system will generate enough power to meet almost all local electricity requirements in the future. A system is also being built at our site in India which will supply half of the electricity required there.

In places where we need to purchase electricity, we are committed to renewable energy. We agree new contracts only with suppliers who provide this. One example is the contract agreed in 2018 for our site in Salzburg. With this, we exclusively finance electricity from small hydroelectric power plants in the region.

Wherever we identify worthwhile potential savings, we usually exploit them.

### Responsibility for contamination

The fact that we can meet the highest standards of operational safety and environmental protection at all our sites is also due to continuous scrutiny of the individual conditions and constructive cooperation with the competent authorities. For example, soil contamination caused by our operations was identified at the production plants in Barueri, Brazil, and Dottignies, Belgium, in 2010 and 2011, respectively. Appropriate measures have been initiated and strictly monitored at both sites in coordination with the authorities. We have made the necessary technical arrangements to avoid similar pollution in the future at all our sites around the globe.

\* see paragraph on KlüberEnergy on page 19

\*\* see paragraph "CO<sub>2</sub> emissions due to energy consumption" on page 24

## Facts and figures at a glance



The environmental indicators shown below are based on the standards set by the Global Reporting Initiative and the Greenhouse Gas Protocol. We have calculated them for all production locations. The figures concerning health and safety also include our sales locations. Due to changes in recording procedures and the pool of data used, some previous year values have been adjusted. In diagrams where this is the case, this is indicated in a footnote. In order to ensure comparability between the various years, the values refer to the production volume or hours worked by employees in each case.

## Waste volumes

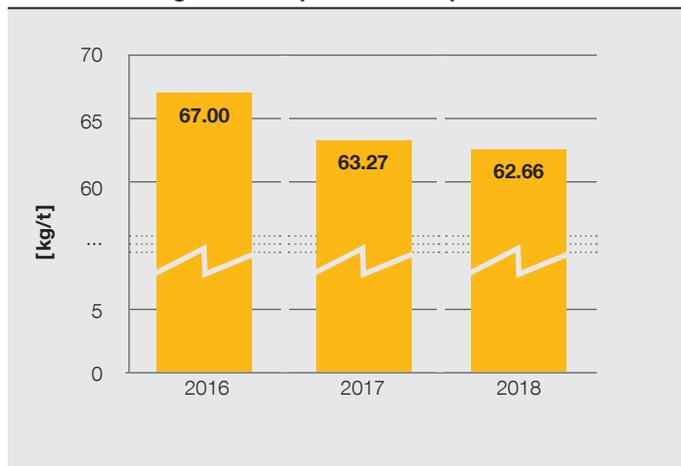
Our total volume of waste includes all waste generated by our manufacturing facilities, both in production and in administrative departments. In our previous sustainability reports, we only documented product waste.

This will continue to be recorded. By documenting total waste, we can now also see the improvements that are being made outside production. The values for the last few years have been adjusted accordingly.

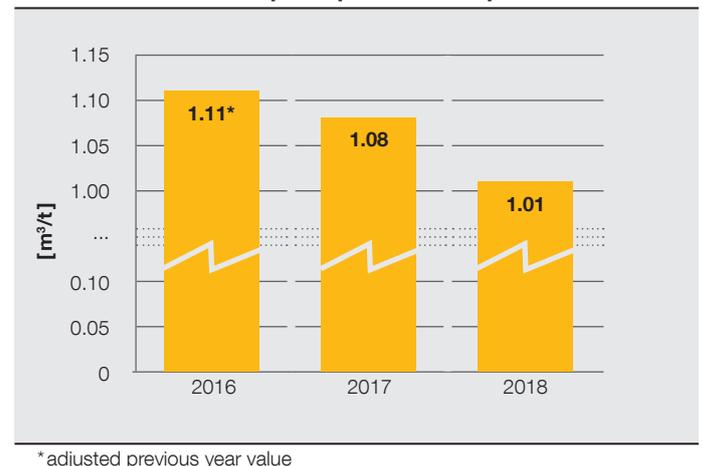
## Water consumption

We record the total water consumption at all our production facilities. This means that the values shown also include water used for sanitary purposes in offices and administrative departments.

**Total waste generated per tonne of product**



**Total water consumption per tonne of product**



\* adjusted previous year value

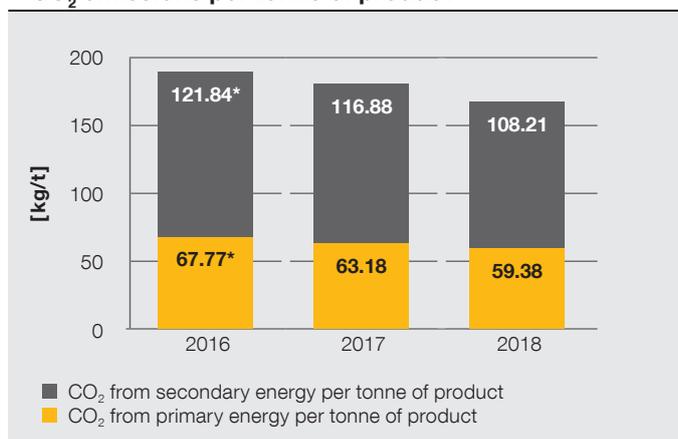
# Facts and figures at a glance

## CO<sub>2</sub> emissions due to energy consumption

Klüber Lubrication determines its total consumption of energy from various sources on the basis of processes at its various facilities. Instead of presenting consumption diagrams using energy units (for example MWh), the company calculates the resulting carbon dioxide emissions. In the graph, energy consumption is divided into primary (gas and oil) and secondary (electricity and district heat) energy consumption.

Since consumption for administrative departments is included as well as consumption directly related to production, external factors – especially weather conditions and climate control in buildings – have a major impact on the data. The increasing amount of renewable energy in our electricity supply will help to reduce this figure even further in future.

**CO<sub>2</sub> emissions per tonne of product**



\*adjusted previous year value

## Health, safety and environmental protection

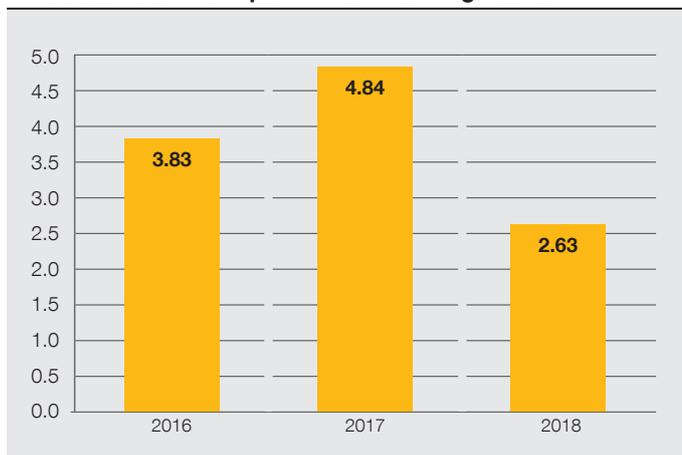
### Management systems keep us “on the safe side”

The foundation for health, safety and environmental protection (HSE) is laid by technical and organisational measures to improve the safety of processes and our plants and products, while also taking environmental aspects into consideration. Continual training and sensitisation ensure that these measures are implemented and that employees have the required awareness of health, safety and environmental protection. In addition, high product and material safety standards (explicitly including environmental aspects) protect the people who use our products and services.

“**We all take care**“ is a Group-wide initiative of our parent company, Freudenberg. The objective is to improve the health and safety of all employees, environmental protection, perceptions of social responsibility and plant safety. Every year, employees who have been especially successful in the context of the initiative receive the “**We all take care**” award.

The objective of the “**Zero Accident**“ initiative is to avoid all accidents at work. In the long-term, the “**Safe Materials**” programme will eliminate all materials that are potentially harmful to employees or users. Our employees’ workplaces are designed and regularly inspected in accordance with ergonomic considerations. We continually monitor compliance with international safety standards in areas such as the **safety of machinery and plants**. We achieve significant success in the field of occupational health and safety every year. The internationally recognised indicator **LDIFR** (Lost Day Incident Frequency Rate = number of accidents with one or more working days lost per million hours worked) has been low for many years. Our employees benefit from special insurance coverage on business travel or international trips and from the protection offered by the international travel security and medical service provider **International SOS**.

**Accidents at work per million working hours**



The figures shown in the graph include all accidents for which treatment by a medical professional was required.

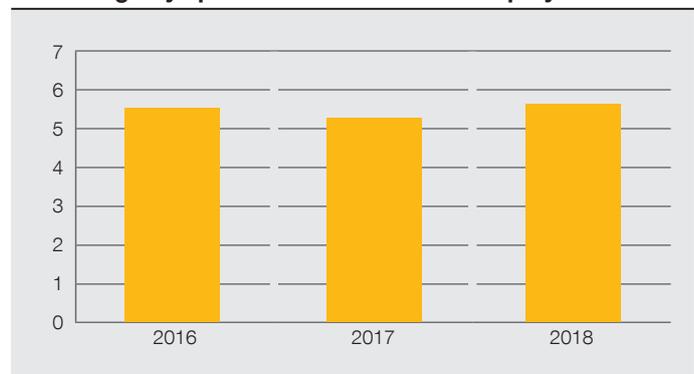
# Facts and figures at a glance

## Training and developing our employees

In 2018, Klüber Lubrication employees participated in 5.7 days of training on average, which corresponds to around 105,000 hours in total. Klüber Lubrication therefore continues to operate as an innovative company at a high level in German industry. Retaining skilled staff, supporting interdisciplinary expertise, the innovative ability of employees, social responsibility and the attractiveness of the company are all investment motives for targeted training and development.

This figure is considerably higher than the average figures\* for Germany calculated by the German Economic Institute, for example.

**Training days per Klüber Lubrication employee**



\* [https://www.iwkoeln.de/fileadmin/publikationen/2017/369145/IW-Trends\\_2017-04\\_Seyda\\_Placke.pdf](https://www.iwkoeln.de/fileadmin/publikationen/2017/369145/IW-Trends_2017-04_Seyda_Placke.pdf)

## Plant certifications

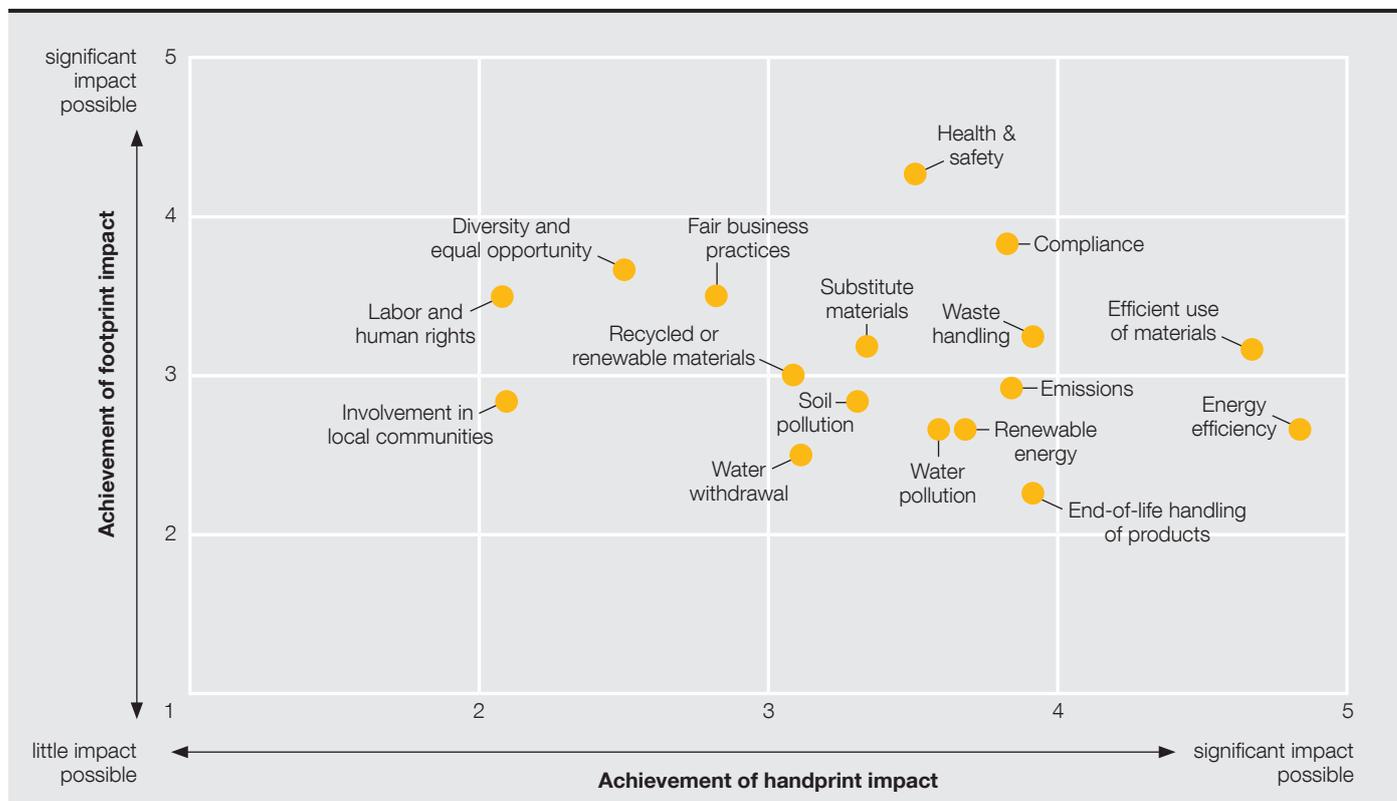
All our production plants are certified in accordance with the applicable criteria. The certifications obtained depend on the production portfolio of the specific plant.

Location	Quality		Food & Pharma	Occupational Safety	Environmental Protection	Other Certifications
	ISO 9001	IATF 16949	ISO 21469	OHSAS 18001	ISO 14001	
Austria	✓	✓		✓	✓	
Belgium	✓	✓		✓	✓	
Italy	✓		✓	✓	✓	
Germany	✓	✓	✓	✓	✓	kosher, halal
Spain	✓	✓	✓	✓	✓	kosher, halal
Turkey	✓			✓	✓	
Argentina	✓			✓	✓	
Brazil	✓	✓	✓	✓	✓	kosher, halal
Mexico	✓			✓	✓	
USA, Londonderry	✓		✓	✓	✓	kosher, halal
USA, Tyler	✓		✓	✓	✓	kosher, halal
China	✓	✓	✓	✓	✓	kosher, halal
India	✓			✓	✓	

# Facts and figures at a glance

## Klüber Lubrication materiality matrix

The diagram below shows the areas (footprint and handprint) that are especially important for Klüber Lubrication from an entrepreneurial point of view and where the company sees the greatest optimisation potentials to minimise its own footprint and maximise the customer benefit.



The diagram shows the main factors and fields of action and indicates their significance for minimising the footprint and maximising the handprint. The individual aspects were identified in workshops with experts from a number of different specialist departments. The fields of action shown in the diagram on page 5 are the result of the materiality analysis.

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## Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for 90 years.