

# Sustainability at Klüber Lubrication 2020



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# A message from the Managing Board

Dear Madam/Sir,

We have compiled our fifth sustainability report to show you how in the past year we continued to increasingly align our business processes with our social and environmental responsibility. True to our motto: "Thinking about tomorrow, today," we kept pursuing our sustainability targets, despite the difficult circumstances of the coronavirus pandemic.

Sustainability is not just a fashionable trend for us, it's a firm corporate belief. This commitment was already clear 25 years ago, when Klüber Lubrication München received certification from the Eco-Management and Audit Scheme (EMAS) for its environmental management system, the first company in Munich to do so.

Our mission is to find solutions for the future that help our customers to successfully meet their targets while still preserving resources. One aspect of this is our so-called "footprint" throughout the value-added chain. This refers to any effects on the environment and resources connected to the procurement and processing of our raw materials and the delivery of our finished products. This includes, for example, our commitment to increasing the amount of energy we get from renewable sources such as the wind and sun. A huge success for us in the past year was that we reached the 45 % mark.

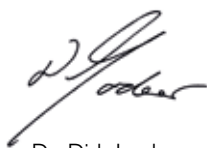
Another aspect is the positive effects that our customers can achieve by using our products (we call this our "handprint"), and the disposal of our products. Through our KlüberEnergy services alone, we were able to help our customers to save approximately 38,000 tonnes of CO<sub>2</sub> in 2020. We were also able to make a lot of progress in other areas over the past year, even partially setting our targets higher. One thing was always clear: our business model, a model that has always been geared towards helping our customers to save energy and reduce wear and waste, goes hand in hand with global sustainability targets.

Another important pillar of our programme is the systematic sustainability approach for new products and product improvements, which ensures that our product portfolio is constantly becoming more sustainable. We explain this approach in more detail in the "handprint" chapter.

We hope this will make for interesting reading!



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



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



Thomas Wieandt  
Executive Vice President Finances/  
Administration

# Sustainability as part of corporate responsibility

The “Values and Principles” of our parent company, the Freudenberg Group, define corporate social responsibility, as shown in the diagram below, and provide the framework for the design of our sustainability programme.

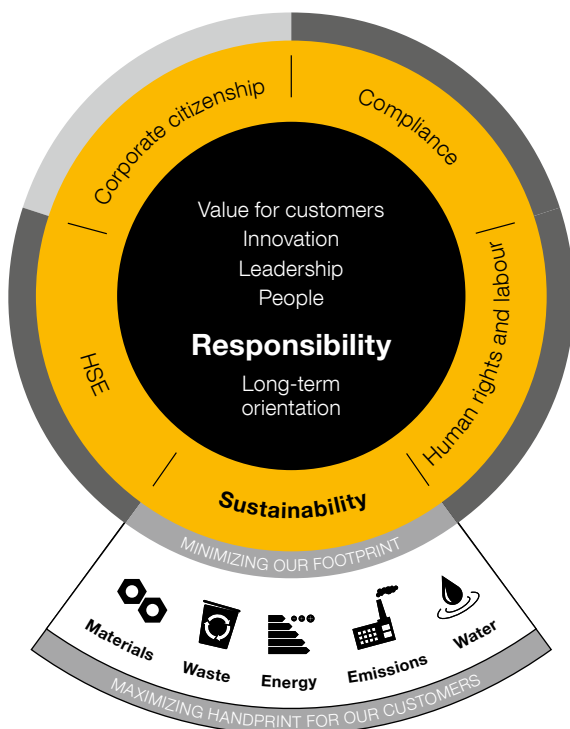
Via Freudenberg, we participate in the UN Global Compact. Its principles on human rights, labour standards, environmental protection and anti-corruption are also embedded in our “Values & Principles”. Compliance with regulatory and ethical principles is the basis for our own code of conduct. We carefully choose suppliers to ensure an ethically sound procurement management. We take a proactive and forward-looking approach to compliance with the important regulatory requirements for our industry, such as REACH (one of several European chemical regulations). As a company in the chemical industry, we also work in line with the chemical guidelines<sup>3</sup> and sustainability initiatives of the German Federation of the Chemical Industry (VCI). 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).

## Klüber Lubrication – the company

Speciality lubricants for the OEM market are our core business. We offer our customers competent tribological solutions. We work mostly through direct marketing to deliver these solutions, selling to customers from all industries and almost all regional markets. Our customers are producers of components, sub-assemblies, machines and systems, as well as operators of these machines and systems. Klüber Lubrication was founded in 1929 in Munich by Theodor Klüber and flies the colours of the Bavarian capital (black and yellow) in its brand, which is where our headquarters has always been located. Our employees, however, work across the globe to serve our customers. Our sales specialists are constantly in touch with their customer contacts. They work together with the customer to develop ideas for new, more effective, more efficient and more environmentally friendly special lubricants. The company generates more than 80 per cent of its sales outside Germany and manufactures products at 12 production facilities worldwide.

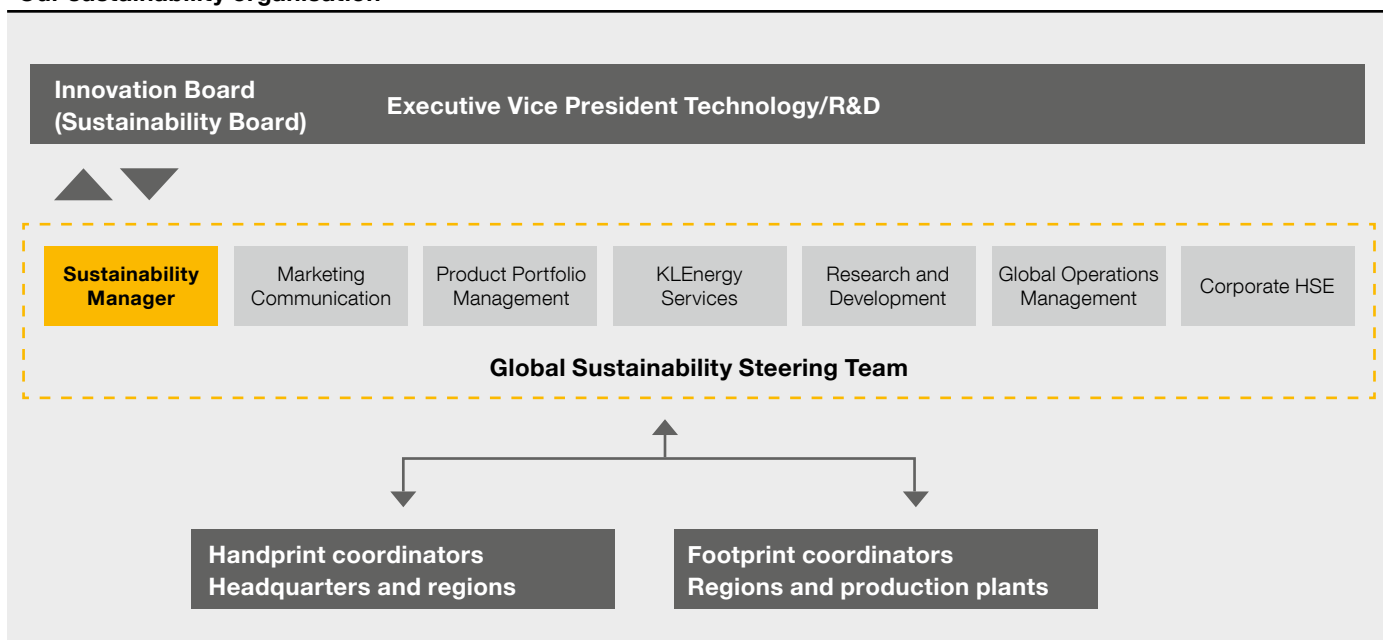
## Klüber Lubrication – Member of the Freudenberg Group

We have been a part of the Freudenberg Group since 1966, an international, family-run technology company founded in 1849 by Carl Johann Freudenberg. Klüber Lubrication is a business division of Freudenberg Chemical Specialities SE & Co. KG, a business group of Freudenberg & Co. KG, Weinheim.



- Freudenberg values and principles
- Fields relating to sustainability
- Operative processes within the value-added chain (e.g. relating to the UN Global Compact)
- Operative processes not relating to value creation

## Our sustainability organisation



### Organising sustainability

The guidelines, strategy and current set targets in the area of sustainability, as well as any organisational measures for their implementation, are set out by the interdisciplinary Sustainability Board.

This ensures that both central function matters and matters from the various regions and sites across the globe are heard and considered. It also helps to establish an effective communication structure to allow for dialogue and mediation of the various contexts across the far-reaching subject that is sustainability.

### No sustainability without responsibility

Other areas of the complex topic of corporate responsibility, such as equality, anti-discrimination, working conditions, human rights, social commitment and ethics, labour and chemical law-related issues, are all managed directly by the Managing Board with the relevant departments and global management structure. This ensures that all targets under the UN Sustainability Goals (SDGs) are extensively covered. We receive valuable support

and advice from our parent company Freudenberg in all of these topics, and we are able to exchange information with the relevant companies and functions.

### Global social commitment

We have a duty to fulfil our social responsibility in all countries and communities in which we are active. We sometimes set up social projects ourselves or we take part in initiatives led by our parent company, Freudenberg. For example, our employees supported the social programme e<sup>2</sup> created by Freudenberg in 2015. e<sup>2</sup> stands for “**education**” and “**environment**” and promotes related projects throughout Freudenberg’s sphere of activity.

A sub-category of the group-wide “**We all take care**” awards ran by Freudenberg is given to projects that demonstrate a high level of social responsibility, e.g. through improving living conditions, workplace safety or environmental protection. Initiatives led by our employees have received numerous awards.

## Focussing on sustainability

We have been focussed on sustainability for decades. In recent years, we have been relying more and more on two instruments that help us to focus our activities more effectively. The first is the UN Sustainable Development Goals (SDGs) and the other is our own Sustainability Scorecard for further developing our products and product portfolio.

## SDGs – focus on responsible consumption, climate change and innovation

We have been consistently committed to the UN Sustainable Development Goals (SDGs), as they were published in 2015. 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-added chain. The focus here lies in three SDGs:

- SDG 9 “Industry, innovation and infrastructure”
- SDG 12 “Responsible consumption and production”
- SDG 13 “Climate action”



### SDG 12 “Responsible consumption and production”

Our key contribution to SDG 12 consists of promoting resource and energy efficiency along the value-added 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. As a specialty lubricant company that currently still relies primarily on fossil fuels and non-renewable raw materials, we want to get the most out of the resources we do use. Using resources carefully and sparingly is key. This rule of thumb guides us when designing and modernising our production facilities, and manufacturing and using our products. For example, we monitor data on raw material and energy consumption, as well as on waste and emissions produced by our plant operations. The aim is to identify and utilise any saving potential. We also reduce our energy consumption by using high-quality building and facility insulation and energy-efficient operating materials. We work diligently to avoid the use of raw materials that we believe to be critical, even if these materials are permitted. We have also been requiring our suppliers to comply with the sustainability principles of the UN Global Compact since 2015.

All production plants are certified to the relevant standards (see Facts and figures from page 17). Independent audits of environmental management and occupational health and safety are carried out in all locations. In 1996, 25 years ago, our headquarters in Munich was the first company in the region's capital to receive a certificate for its environmental management system in accordance with the EU eco-audit directive. More and more of our products are winning awards for their environmental compatibility.



### SDG 13 “Climate action”

Effective climate protection is one of the most urgent issues to preserve vital resources for future generations as well as flora and fauna. In 2018, we set ourselves the ambitious target of increasing the proportion of electricity we obtain from renewable energies to 50% by 2025, underpinning this with a package of relevant measures. By 2020 we had already reached 45%, and we're now increasing our tempo. In 2020 our parent company Freudenberg declared their commitment to CO<sub>2</sub> reduction targets (–25% by 2025, base year 2020, in relation to turnover). So did we from Klüber Lubrication (details see pages 9, 16, 18).

In addition, we are helping our customers 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. 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-added chain, 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.



## SDG 9 “Industry, innovation and infrastructure”

The ability to operate sustainably relies largely on innovation and the willingness to continuously improve. And it is key for all areas of our business. Innovation starts in the heads and hearts of our employees. That’s why regular employee information and training is so important to us. In 2019, we introduced an e-learning course on sustainability for all of our sites across the world. This ensures that every employee across the globe understands the extensive topic of sustainability and its necessity – and can actively support the company in its mission.

Research, development, new test methods, modern and resource-efficient production techniques, environmental protection/workplace safety, product and application safety, environmental compatibility and many other areas are at the core of our investment policy. Experts from various functions consider forward-looking future trends, market development, standards and regulatory requirements at all points throughout the value-added chain. We give equal consideration to our footprint during procurement, manufacturing and transportation, and to our handprint during the in-use phase and disposal.

Our products contribute significantly to profitability and sustainability by minimising friction and wear. We help our customers achieve their targets, e.g. by saving energy, cutting emissions and reducing waste volumes. Conserving resources, extending maintenance cycles, reducing downtimes of machinery and plants, decreasing the amount of lubricant required for efficient operation and other benefits for our customers also contribute to this.

### Focus on developing our products

Speciality lubricants are generally not straight consumables but rather essential components that facilitate the operation of dynamic machines and systems or other components. Our processes aim to minimise our footprint and maximise our handprint. Using our Sustainability Scorecard, we work systematically towards this goal in the development of our products and product portfolio, as we will show below.

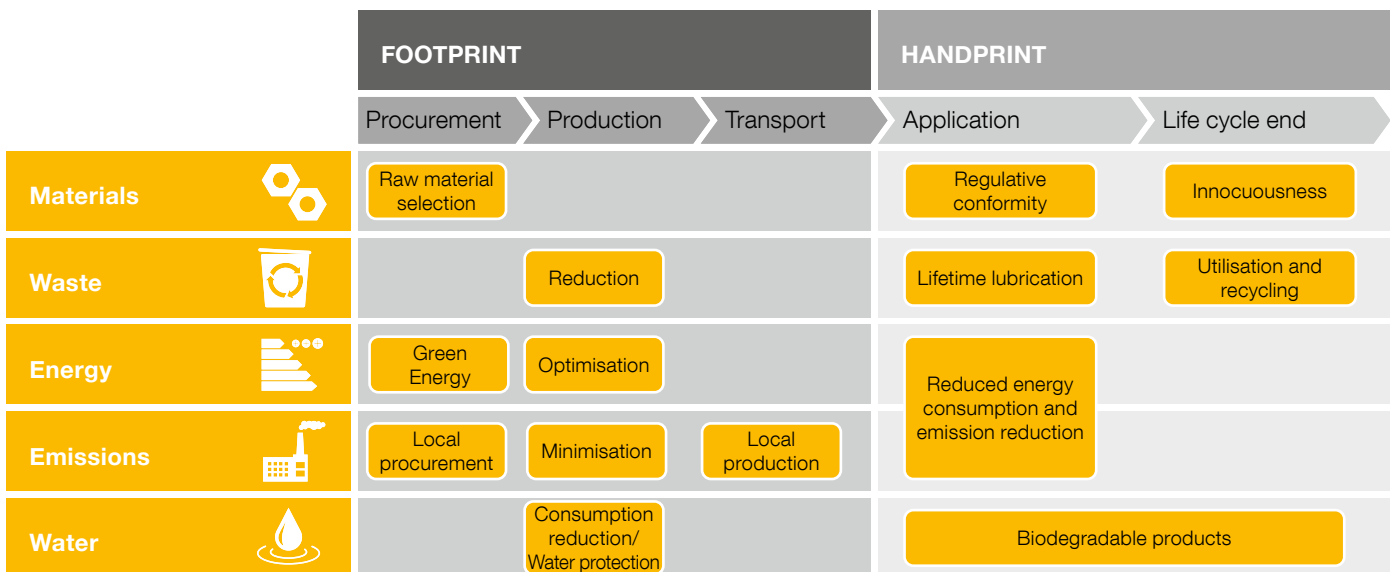


## Measuring and evaluating optimisation

Sustainable development – optimisation from the start – requires a strong culture of innovation. Our goal: precise analysis of all relevant operative processes in the new development or modification of products and services with regard to their sustainability – and across our entire value-added chain. With our Sustainability Scorecard for innovation, we have been working towards this goal since 2011. This scorecard considers a product's life cycle and its intended product properties. It provides a forward-looking evaluation of our entire value-added chain with raw materials and additives, processing and production, packaging, transport, usefulness for the customer and waste management.

## Sustainable management of our product portfolio

Klüber Lubrication has also expanded its Sustainability Scorecard approach into an integrated evaluation and management system for the existing, international range of goods. This is subject to regular review using specific sustainability criteria. These criteria range from toxicity and biodegradability to energy efficiency and particular application safety. The focus always lies on the climate, biosphere and the individual. The results of this review are then used as the basis for measures to increase the portfolio's sustainability performance. Particularly sustainable products should be promoted, less sustainable products are modified or even removed from the range of goods altogether. Our goal is to continue to increase the contribution of sustainable products to our company's success. The market requirements in the target markets are constantly changing and so we must continuously work to develop the system. We are currently focussing on being able to quantify the CO<sub>2</sub> footprint of our products.



Our footprint and the customer benefit are both taken into account. If the balance is off, a development plan will generally not be pursued any further. The graphic shows potential benefits to be gained for both footprint and handprint as an example. The vertical bar on the left shows the so-called fields of action or materialities. This is a simplified representation to provide an overview of the possible benefits of a life cycle review.



# Case study: A happy ending as an incentive

At the end of 2019, the team responsible for sustainability at Klüber Lubrication looked confidently to the future. Huge steps forward in reducing CO<sub>2</sub> emissions were to be expected: from 2020, the switchover to green energy in particular would make a significant impact.

But a setback was looming on the horizon. “The then Head of Development for the Chinese production facility delivered some bad news to the sustainability team: a cleaning agent currently used in production had a high potential for global warming,” explains Markus Hermann, Sustainability Manager at Klüber Lubrication. The effect of one kilogram of this solvent on the environment reportedly corresponded to approximately 10,000 kilograms of CO<sub>2</sub>, the team learned.

Ingredients in cleaning agents had, until this point, not been largely considered as part of Klüber Lubrication’s CO<sub>2</sub> reduction policy. The agents were, until then, chosen over other products for their ability to remove residue of previously produced oils, greases and bonded coatings. The previous cleaning agent had been chosen largely because of its suitable performance parameters at an affordable price.

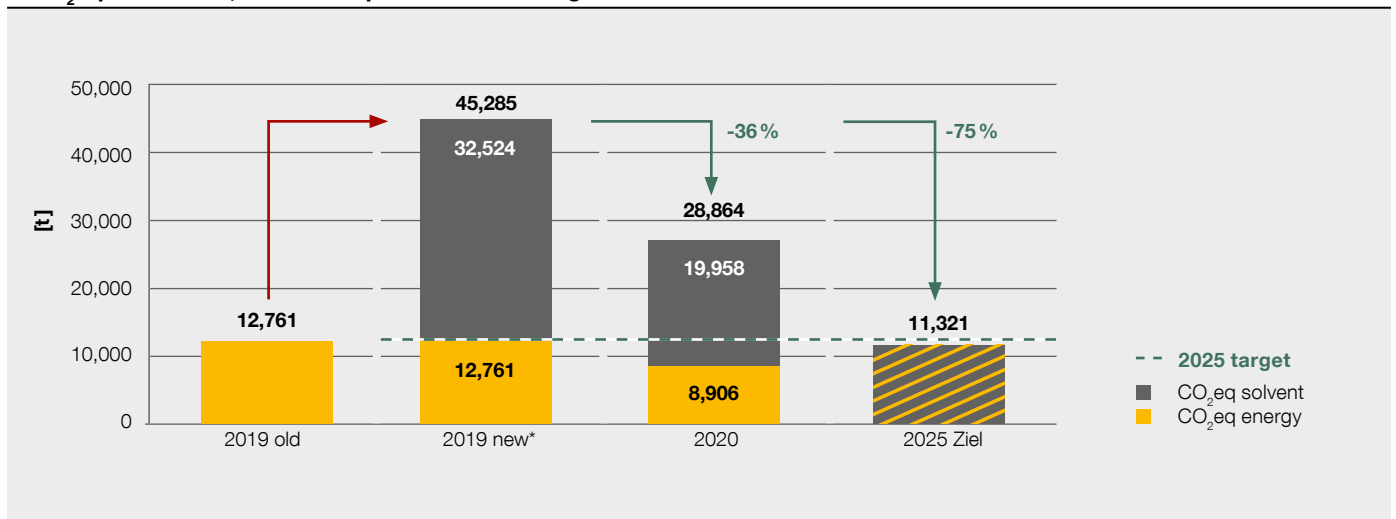
The sustainability team, however, was not willing to settle for significantly higher numbers in the company’s carbon footprint. Just a few tonnes of solvent caused 2.5 times higher CO<sub>2</sub> emissions than the energy consumption of all Klüber Lubrication production facilities combined.

The whole team was in agreement: the problem could not wait. Employees from Research and Development, Production and other departments urgently started the search for alternative cleaning agents. After extensive laboratory and production testing, a breakthrough was made. Another substance was found that provided the required performance. Its global warming potential is just 58 – as opposed to the 10,000 of the previous cleaning agent. What’s more, the alternative agent also cleans more efficiently.

Klüber Lubrication almost completely switched to the new cleaning agent, helping significantly to save 36 % of the CO<sub>2</sub>eq<sup>1</sup> emissions in 2020 (see graphic and pages 16 & 18). Further tests and application practice confirmed that the new agent even allowed for financial savings. For the Sustainability Manager, switching the cleaning agent is an excellent example of how “economy and ecology often go hand in hand and how a sustainable corporate attitude can often be very profitable”.

The solvent story with a happy ending posed the question as to whether the incident should even be communicated. Ultimately, we decided that we should be transparent, even with challenges like these which, on the road to becoming more sustainable, are not always obvious but are problems which perhaps many others also experience. Cross-company cooperation and a quick exchange of reproducible solutions is essential if we want to avoid catastrophic climate change.

**CO<sub>2</sub>eq emissions, basis of report and 2025 target**



\*Solvent emissions included

<sup>1</sup> CO<sub>2</sub>eq: CO<sub>2</sub> equivalent

# Always in sight – our handprint with customers

## Sustainability Product Portfolio Segmentation (SPPS)

Sustainability is becoming an important issue for companies across more and more industries. The issue is also becoming more significant thanks to new laws and stricter limit values. Klüber Lubrication is always keeping its eye on the increasing sustainability demands and fast-paced, constantly changing legal requirements.

In fact, as early as ten years ago we introduced criteria for evaluating the sustainability of product development projects. With the aim of significantly increasing the contribution of our products to our and our customer's sustainability targets, we updated these evaluation criteria and applied them to our entire product portfolio.

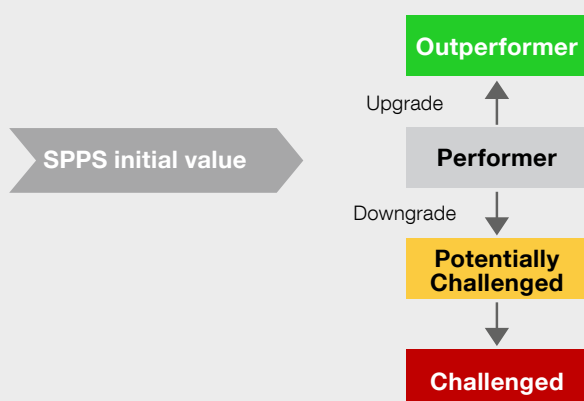
Criteria that could be clearly assessed and measured with regard to the effect of our products on individuals and the environment, as well as sustainable production and resource conservation, have been incredibly important here.

We have been analysing and evaluating our product portfolio using this method in recent years. These criteria have helped us to further develop our portfolio with the aim of continuing to increase the sustainability of our products for our customers. Development measures can include, for example, new certifications as well as the use of more sustainable raw materials. We are also aiming to expand product benefits for



our customers even further and integrate these even more concretely into the evaluation, e.g. increasing energy efficiency or reducing the quantity used.

### An overview of the four product segments



All of our lubricants contribute to sustainability, reducing friction and wear and ensuring longer operating times and less maintenance, etc. As a result, we classify all of our products initially as “Performer”. Products that also meet certain standards or offer our customers added value for sustainable use in line with the UN SDGs are then upgraded to the “Outperformer” category. However, products that pose a danger to health or the environment, are downgraded to “Potentially Challenged” or “Challenged” and should be replaced in the medium term.

## Naturally high performers

One important criterion used in the evaluation of our products is their effect on the environment and compliance with the corresponding regulations. Our “Outperformer” products excel here. They are partially biodegradable and fulfil numerous environmental standards, such as Ecolabel, OSPAR or EAL for the protection of both land-dwelling and marine life.

The renewable raw materials used offer an additional benefit in that they absorb and bond carbon dioxide (CO<sub>2</sub>) during the growth stage. In doing so, these materials improve the lubricant’s carbon footprint, as well as that of the lubricant user and related finished products. That’s what makes these lubricants the perfect choice for anyone aiming for CO<sub>2</sub>-neutral production.

### Example:

Stern tubes that pass through the propeller shafts of ships are subject to heavy loads and come into direct contact with seawater. To protect the environment, regulations on the lubrication of propeller shafts, such as the Vessel General Permit (VGP) in the USA, only permit lubrication with EAL<sup>1</sup> products, as the leaking of oil cannot be fully avoided. Biodegradable lubricants for stern tubes have been available for a few years now but they have so far not succeeded in living up to the performance of mineral oil-based products. Klüber Lubrication has now developed a lubricating oil that offers excellent lubrication performance, even exceeding that of mineral oil-based products. At the same time it’s also biodegradable and non-toxic. This is particularly important for the international shipping industry, which is turning increasingly towards sustainable concepts.



<sup>1</sup> Environmentally Acceptable Lubricant

## Food products without critical oils and greases

This may sound like a diet plan, but the products referred to in fact protect the health and wellbeing of the consumer and help our customers to achieve a more sustainable production. Lubricants used in the food and water industries need to be safe for consumers. By meeting the NSF1 standards or drinking water regulations and producing our lubricants in line with ISO 214692, we help to ensure this.

Extensive analysis of the production and maintenance processes, as well as a specific risk assessment of our formulations, is required to avoid health risks and protect both users in production and the end users.

We have developed new technical solutions and digital tools that help our customers to save environmental resources and reach their sustainability targets.

### **Example:**

Bread, pastries, cakes and other industrially manufactured baked goods are manufactured in large-scale bakeries under a wide range of extreme conditions, including both incredibly high and low (freezing) temperatures. High-performance chain lubricants have been developed especially for this purpose. These lubricants are not only suitable where contact with food cannot be avoided, they can also withstand the high temperatures of industrial baking ovens. They provide reliable lubrication for drive and conveyor chains up to 250 °C and, thanks to excellent wear protection properties, low residue and vapour formation, help to extend the service life of. In turn, this helps to reduce the use of materials and saves resources.



<sup>1</sup> NSF is an international organisation that tests and certifies products used in the food-processing industry.

<sup>2</sup> ISO 21469 governs the use of lubricants in the food-processing, cosmetics, pharmaceutical and animal feed industries.

## Less CO<sub>2</sub> and more climate protection through efficiency

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 specialty lubricant depending on operating parameters. Klüber Lubrication then develop a custom lubricant optimised for energy efficiency. Using a matching product 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. We also go one 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 50001 certification. **The savings generated and documented with the KlüberEnergy service amounted to approx. 284,000 MWh in 2020 (2025 target: 350,000**

**MWh), which is equivalent to 38,000 tons 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.

## Using innovation and efficiency to manage industrial maintenance and repair

The EfficiencyManager, our digital service portal, supports our customers with the overall management of lubrication points. The maintenance management module provides transparency in the management of time and maintenance plans, ensuring more efficient and sustainable maintenance and repair operations. Having such control over the maintenance process makes it almost impossible to confuse lubricants and ensures that only the necessary amounts are used, making adhering to compliance regulations even easier. Using sensor-supported predictive maintenance, our digital Total Productive Management Support helps to sustainably increase quality through higher system availability and longer service lives. It can also help to reduce repair costs and comply with internal processes.



## Use less – achieve more

Less is more. That goes for certain lubricants, too. After all, ensuring reliable lubrication while using less lubricant reduces raw material consumption, input, waste, procurement and disposal costs, and even your carbon footprint. In many applications, such as gearbox or compressor lubrication, our customers also experience significant cost benefits without compromising on operating safety or the service life of their machines.

### **Example:**

Many machines in the base materials industry, e.g. cement manufacturing, are kept moving by large girth gear drives. The right lubrication is key here. Applied via a spraying system, a matching lubricant can reduce the quantity of lubricant used by up to 50% in comparison to previously used adhesive lubricants. Klüber Lubrication has also developed biodegradable lubricants from renewable raw materials for these applications. These extremely innovative and sustainable lubricants ensure outstanding machine protection.



## Longer adhesion for reduced resource consumption

Another criterion for evaluating our lubricants is their ability to optimise the service life of a component, such as gearboxes or rolling bearings. A good lubricant helps to prevent downtime due to premature wear, ensuring that machines can run efficiently until the end of their service life. This can significantly delay the need for the replacement of components, helping to save on costs for maintenance and spare parts. This can also reduce the use of raw materials throughout the machine or component's running time, as well as the amount of used lubricant to be disposed of.

Apply lubricant once and never think about it again – that's what so-called lifetime lubrication is all about. For us, lifetime lubrication is the perfect solution – especially when we are able to establish it for applications that would previously need to be constantly relubricated. However, although lifetime lubrication is not always feasible, even individual steps in this direction are still important milestones for sustainable production. For us, these products are worthy of the label "Outperformer".

### **Example:**

In the wind industry, operators come up against particular challenges when components have to be replaced at dizzy heights. Lubricants that offer increased protection against wear, even when exposed to vibration, help to significantly increase the service life of the bearing.

And when it comes to hardened residues and subsequent increased operating temperatures, Klüber Lubrication offers a cleaning grease to target and remove these deposits.

It's a win-win: an innovative approach that helps to significantly reduce maintenance and downtime and increase the service life of rolling bearings.



# Minimising our ecological footprint in the value-added chain

There is only so much we can do to influence the ecological footprint of our products “Cradle to Gate”, meaning from raw material extraction to the factory gate before shipment to the customer.

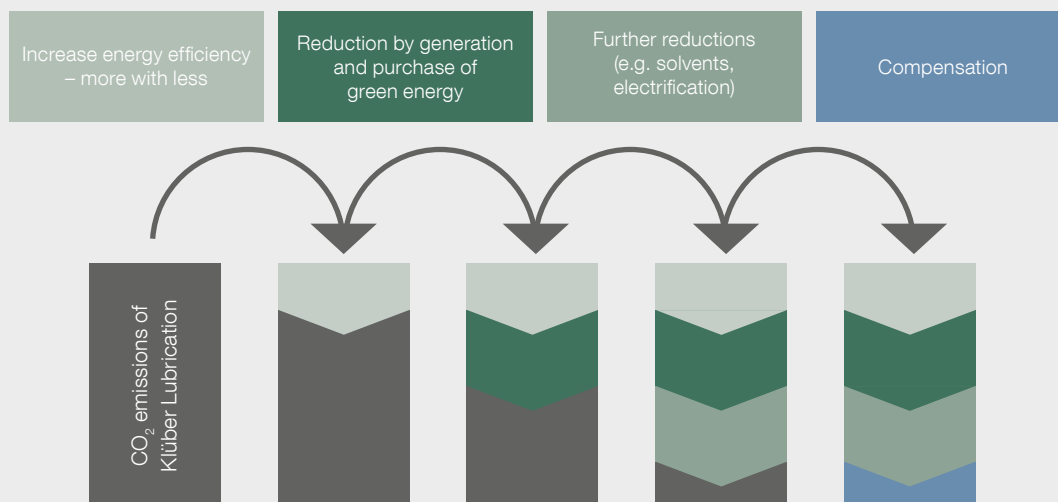
**Life cycle analyses** of our products show that raw materials are responsible for the largest part of the footprint, with transporting and packaging not too far behind and our own production processes generally being only the fourth most impactful. This is, in large part, thanks to the success of our many years of process optimisation.

We are placing more and more importance on environmental properties (e.g. biodegradability and greenhouse potential) when **choosing raw materials**. As part of **procurement management**, 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. We do not have direct control over all the relevant factors in our suppliers’ value chains and we cannot reliably quantify them. However, only companies who commit to abide by our or similar ethical standards are permitted as suppliers.

**Local raw material sources and production** in sales markets allow us to minimise transport channels. For larger distances, our **transport logistics** policy favours ocean freight. Air freight is only used when absolutely necessary. We have set out clear priorities for minimising climate-affecting emissions from our **own in-house processes**:

1. We reduce emissions or waste and water consumption wherever we can. All sites must develop their own related options for increasing efficiency and share these as “best practices”.
2. Any energy required should come from renewable sources as far as possible: we produce renewable energy using solar plants in Mexico and India. Our headquarters covers almost all of its own energy demand through an external solar plant. More and more sites are using “green energy”, such as hydro-power. We are also planning to move away from fossil-based natural gas as our primary energy source for heating in the mid to long term.
3. We are aiming to achieve further savings through the electrification of processes, like switching from combustion-engine to electric cars, and by reducing and optimising solvents.
4. For any remaining CO<sub>2</sub> emissions, compensation is the current approach. This means financing corresponding measures for offsetting our own emissions to become CO<sub>2</sub> neutral.

## The current focus of our way to climate neutrality





# Facts and figures: an overview

The environmental indicators shown below are based on the standards set by the **Global Reporting Initiative** and the **Greenhouse Gas Protocol**. We have calculated the generated waste and water consumption for all of our production facilities. For the first time, CO<sub>2</sub> emissions now include values for our sales sites. They also now include climate-relevant emissions of other greenhouse gases (background to this is given in the article on page 9). Our sales sites also include figures related to workplace safety. The values are based on production quantities and worked hours by our employees to allow for comparison from year to year.

To ensure a clearer understanding of the key figures better, please note that, as a specialty lubricant manufacturer, Klüber Lubrication is not in the mass market for e.g. motor oils and rarely produces products in high volumes. We frequently produce small batches of highly specialised lubricants in large numbers. Our portfolio is also largely made up of greases from energy-intensive production.

## Generated waste

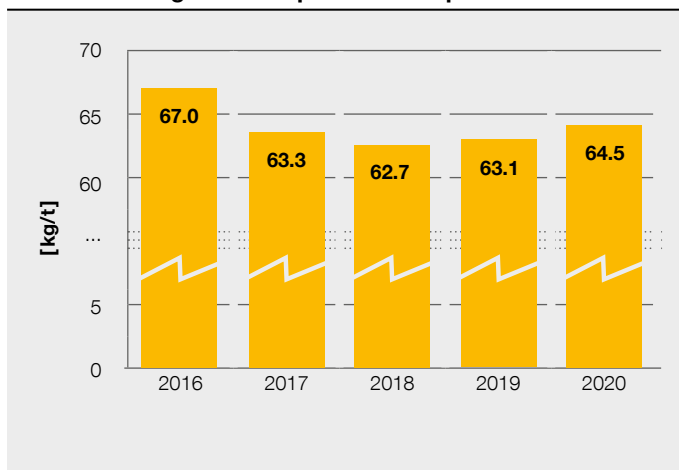
Our total volume of waste includes all waste generated by our manufacturing facilities, both in production and in administrative departments. No significant improvements have been made on a global scale since 2017. The situation differs greatly, however, at the local level. Global and local initiatives targeting the issue of

waste, particularly production waste, over the past 20 years have been a crucial factor here. For example, we have continuously shortened the pipe connections on our filling machines, significantly reducing the amount of waste generated from necessary cleaning. Through a structured exchange of best practices and key figure comparisons, we ensure that knowledge is shared and implemented across all of our sites worldwide. In 2017, we reached a certain optimum and values have been fluctuating around this mark ever since. We have started new initiatives in the hope of making further systematic improvements.

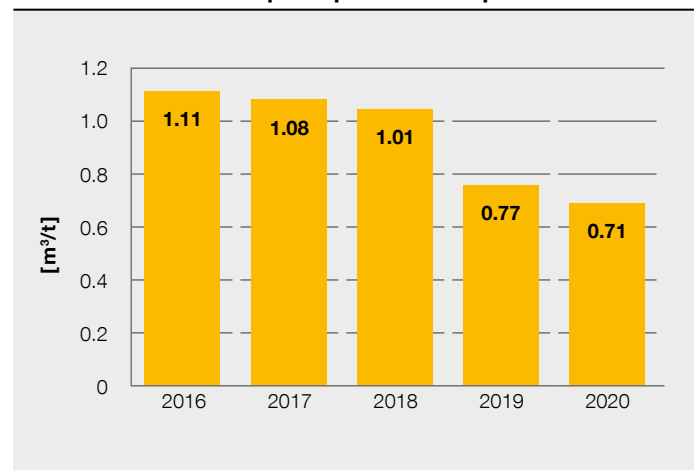
## Water consumption

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. The significant reduction from 2018 to 2019 has held up. However, it should also be noted that reduced attendance in offices due to the pandemic in 2020 has had an impact on some of our sites.

**Total waste generated per tonne of product**



**Total water consumption per tonne of product**



## CO<sub>2</sub>eq-emissions<sup>1</sup>

Klüber Lubrication determines its total energy consumption from various energy sources based on operational processes at the individual sites. Using a consumption graphic based on energy units (e.g. MWh), the company then calculates the subsequent related CO<sub>2</sub> emissions. The graphic displays these figures for each production facility, divided into direct (e.g. gas, oil) and indirect (e.g. electricity, district heating system) energy.

As 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.

For us, as for many other companies within our industry, the focus for many years has been on energy-related CO<sub>2</sub> emissions per tonne of product. Klüber Lubrication has set itself the target of reducing its energy-related emissions per tonne of product by 40% in comparison to 2019 by 2025. In 2020, we had already achieved a 29% reduction.

The reduction of emissions from direct energy can be in large part attributed to more employees working from home as a result of the pandemic. The much higher reduction of emissions (e.g. from energy from external power plants) was a result of the energy switchover at our headquarters and central warehouse: we have been using energy from renewable sources exclusively since the beginning of 2020 and a large portion of this energy

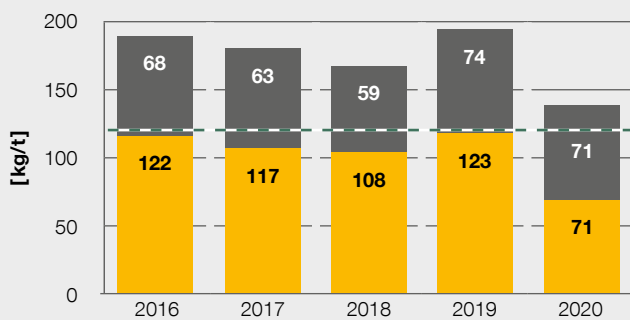
comes from an external solar plant. We also took out a long-term contract with the energy provider to promote the expansion of renewable energy.

The below graphic shows our climate-relevant emissions in absolute tonnage for scope 1 and 2 in accordance with the Greenhouse Gas Protocol. This means emissions from:

- Energy consumption of our production facilities
- Energy consumption of our sales sites (new)
- Solvents (new)

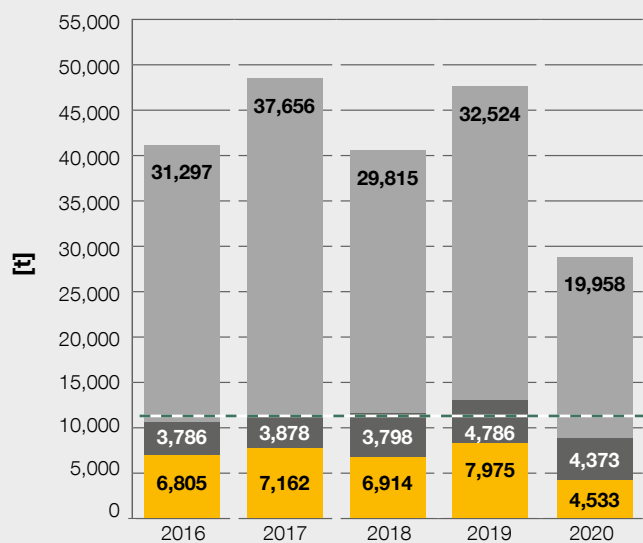
We only recognised the particular relevance of solvents during the reporting period and then analysed this retrospectively based on consumption quantities. Their high share in emissions is primarily a result of cleaning agents with significant greenhouse effects. Thanks to the dedication of many employees and quick success in finding alternatives, almost all of these have been banned since September 2020. This, combined with the optimisation of our energy consumption and supply, allowed us to reduce emissions by 36% (16,517 tonnes) in 2020. By 2025 at the latest, we would like to reduce CO<sub>2</sub>-equivalent emissions by 75%.

### Energy-related CO<sub>2</sub> emissions per tonne of product



- 2025 target: -40% (in comparison to 2019)
- Scope 1: direct energy per tonne of product
- Scope 2: indirect energy per tonne of product

### CO<sub>2</sub> eq emissions absolute



- 2025 target: -75% (in comparison to 2019)
- Scope 1: solvents
- Scope 1: direct energy, e.g. gas
- Scope 2: indirect energy, e.g. electricity

<sup>1</sup> CO<sub>2</sub>eq: CO<sub>2</sub> equivalent

## Health, Safety and Environment (HSE)

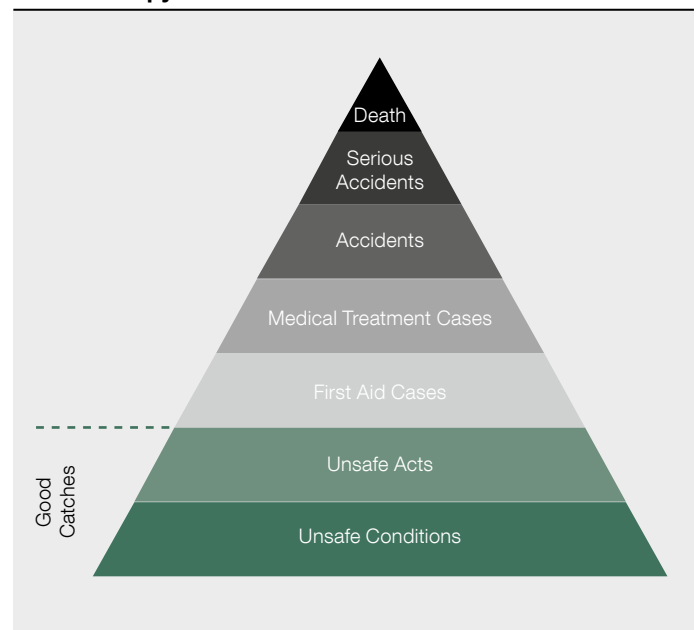
We switched our workplace safety management system over to the **new ISO 45001 standard across all of our sites worldwide** in 2020. This standard is more stringent than previous standards in relation to employee issues and ideas. Employee awareness for the issue of HSE has always important to us and so we welcome the improved opportunities for employees to be actively involved in the management system.

“We all take care” is a group-wide initiative by our parent company Freudenberg. This initiative aims to promote the health and safety of all employees, as well as issues of environmental protection, corporate responsibility and on-site safety. Employees that have gotten involved with the initiative with particular success are awarded the “We all take care” award every year. Klüber Lubrication is always a prominent contributor to this initiative and even our new colleagues at Traxit<sup>1</sup> were able to submit projects from their first year.

HSE experts from our global sites virtually exchange knowledge as part of our “HSE Community”. This community focusses on issues arising from everyday operation and works together to find solutions and translate any gained insights into binding standards for the entire company group. In 2020, for example, we were able to remove a hazardous corrosion protection additive from an ester-based grease for bearings while preserving the product’s excellent properties. This raw material exchange project allowed us to respond to a modified raw material classification.

The **WRIFR (Work Related Incident Frequency Rate)** includes all incidents that require more than just medical attention from a first-aid specialist. All WRIFR incidents and near incidents that could have led to injury are promptly analysed in detail to ensure that we implement the necessary measures across all sites. In 2020, we were happy to announce that the WRIFR (excluding our new Traxit sites) was low at 0.4 with our sites reporting no “Lost Day Incidents” (absence longer than one day) for the first time ever.

### Accident pyramid



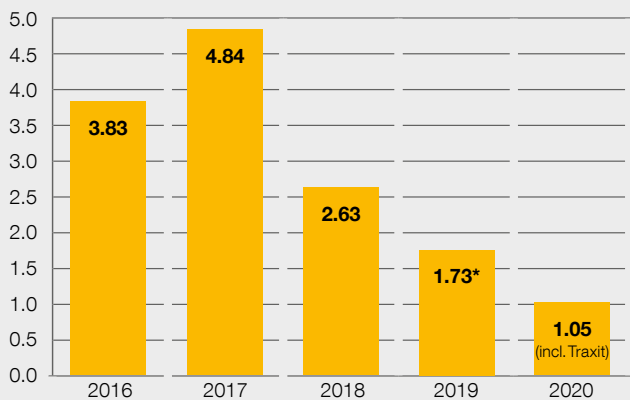
Graphic representation of the various impacts of an accident. The “accident pyramid” stands on a wide base made up of recorded improvement potential (the “Good Catches”). Even though there was a drop of 17% in the corona year in comparison to last year, 2,000 improvements is still an impressive number, especially under the difficult conditions of 2020.

Health protection was dominated by the topic of Covid-19 in 2020. For us, it was obvious that we not only needed to assist our plants in response to the pandemic, but also provide practical support in the procurement of tests and face masks and, where necessary, ensure medical care.

<sup>1</sup> Traxit: a lubricant specialist for the wire industry acquired by Klüber Lubrication in 2020

# Facts and figures: an overview

## Work accidents per 1 million workhours

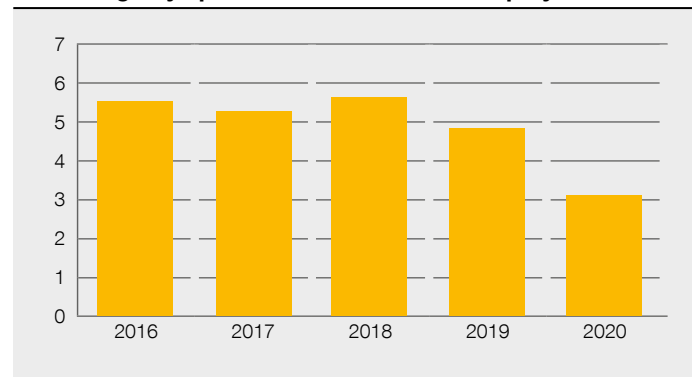


The figures shown in the graph include all accidents for which treatment by a medical professional was required, as well as accidents resulting in absence longer than one day.

## Training and developing our employees

In 2020, Klüber Lubrication employees participated in 3.12 days of training on average. The decline from the previous year is largely due to the pandemic and the subsequent required short-time work. It also reflects a trend to increasingly opt for shorter learning sequences. However, as a company known for its innovation, Klüber Lubrication continued to be a top performer for training thanks to its strengthened transformation from in-person to online training, delivered by our own HR department or by our external partners. The global rollout of the new “Learning Management System” (LMS) as a training hub also helped us to move further towards digitalisation of our training courses. Just a few weeks after it was introduced, the new LMS reported higher page views and frequencies than the previously used system. Significant factors for this success is the facilitation of “Learning on Demand” and informal learning. In 2020, our employees successfully completed well over 10,000 e-learning courses. For example, in 2019, we introduced an e-learning course on sustainability worldwide to ensure that every employee understands the extensive topic of sustainability and its necessity and can actively support the company in its journey towards sustainability.

## Training days per Klüber Lubrication employee

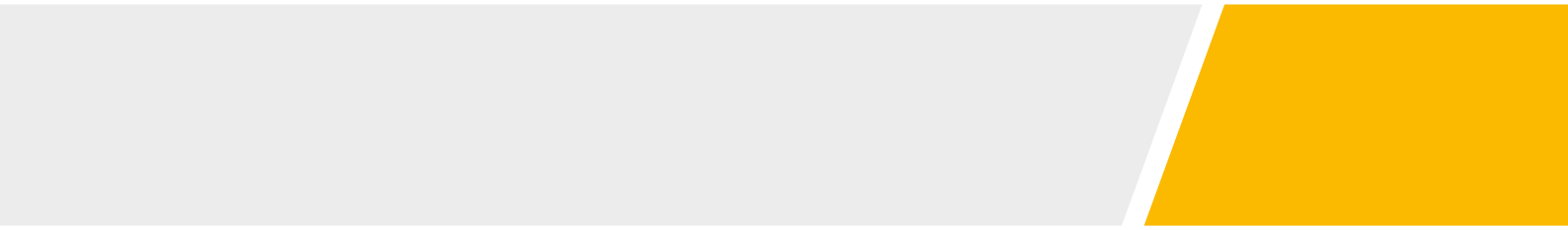


\*Due to missing reports of workhours, the figure stated in the 2019 sustainability report (1.77) was slightly too high. The graphic now includes the correct value.

## Site certifications

Certification refers to a process that helps to prove compliance with certain requirements. Certifications are often time-limited by an independent certification body such as DNV or TÜV, which are also responsible for independently auditing compliance with standards. To fulfil all the requirements of our customers and meet the increasing demands in the quality and environment sector, Klüber Lubrication maintains certifications at all of its production facilities. Each production facility has different requirements with regard to markets, customers or its know-how and adapts its certifications accordingly.

Location	Quality		Environmental protection	Workplace safety	Food and pharma	
	ISO 9001	IATF 16949	ISO 14001	OHSAS 18001/ ISO 45001	ISO 21468	kosher, halal
Austria	✓	✓	✓	✓		
Belgium	✓	✓	✓	✓		
Germany	✓	✓	✓	✓	✓	✓
Spain	✓	✓	✓	✓	✓	✓
Turkey	✓		✓	✓		
Argentina	✓		✓	✓		
Brazil	✓	✓	✓	✓	✓	✓
Mexico	✓		✓	✓		
USA, Londonderry	✓		✓	✓	✓	✓
USA, Tyler	✓		✓	✓	✓	✓
China	✓	✓	✓	✓	✓	✓
India	✓		✓	✓		



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## Klüber Lubrication – your global specialist

Our passion is creating innovative tribological solutions. Through personal support and consultation, we help our customers to be successful, around the globe, in every industry. By utilising complex engineering concepts and experienced, competent employees, we have mastered the growing demand for high-performance, cost-effective special lubricants for over 90 years.