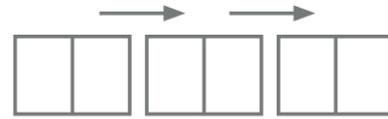


Corporate Responsibility Report 2019

Liebherr-Hausgeräte GmbH

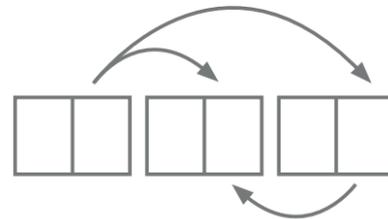


LIEBHERR



Traditional navigation

You can read the Corporate Responsibility Report from Liebherr-Hausgeräte GmbH in the traditional way, from page 1 right through to the end.



Targeted navigation

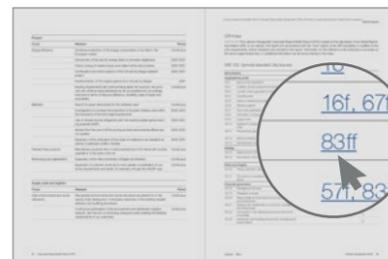
Use the links in the table of contents, the lower navigation bar or the GRI index to go directly to a specific page.



You can select each item directly in the table of contents at the beginning of this report.



Use the navigation items at the bottom of the page to go to the table of contents or to undo an action.



Clicking a page number in the GRI index will take you directly to the corresponding page.

We are independent

"Our independence enables us to take decisions rapidly and autonomously."

We are a trustworthy partner

"We aim to maintain our consistency and trustworthiness for many years to come."

We are innovative

"We work systematically to keep one step ahead."

Our employees are a key factor in our success

"We greatly appreciate the degree to which our employees identify with their company."

The highest quality in everything we do

"We devote all our efforts to best performance."

We accept responsibility

"We aim at all times to fulfil our responsibility to society in general and to the environment."

Reporting Framework

[102-49/50/52/54] This is the third Corporate Responsibility Report from Liebherr-Hausgeräte GmbH. It summarises the main economic, environmental and social developments of the financial years 2018 and 2019. For the sake of completeness, important developments from previous years have also been covered. The report is supplemented by the “Corporate Responsibility Factsheet”.

Unless otherwise stated in the report, the information refers to the parent company of the Domestic Appliances Division, Liebherr-Hausgeräte GmbH, and the three European production companies, Liebherr-Hausgeräte Ochsenhausen GmbH in Ochsenhausen (Germany), Liebherr-Hausgeräte Lienz GmbH in Lienz (Austria) and Liebherr-Hausgeräte Marica EOOD in Radinovo (Bulgaria).

For reasons of accuracy, clarity, comparability, reliability, balance and materiality, the report covers only the three European production companies. The integration of the two Asian locations into Corporate Responsibility reporting has been initiated and is being implemented: In the next reporting period we will be integrating the two production companies Liebherr Appliances Kluang SDN. BHD. in Kluang (Malaysia) and Liebherr Appliances India Pvt. Ltd. in Aurangabad (India).

The report is based on the current guidelines of the Global Reporting Initiative (GRI). We report on all standard disclosures as well as all aspects identified as material. In our opinion, this report is a GRI-Referenced report, which fulfills the “Core” option of the GRI Guidelines.

Note on the use of language: In this report, we use gender-neutral formulations such as “they”, “them” and “their/theirs” where gender is unspecified, unknown or unimportant. However, all genders are intended at every point.

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Preface by the management

Dear readers,

[102-14/15/16/18/19/20/49, 103-1/2/3] Sustainability and climate protection were the dominant public issues before the outbreak of the corona pandemic in the spring of 2020. They disappeared from the media for a short time – only to return with even greater prominence: as a potential way out of the crisis.

For us, responsible and sustainable business has always taken centre stage. Today more than ever, we all must contribute to overcoming global challenges.

In 2015, the United Nations adopted the 2030 Agenda on Sustainable Development. In combination with the Paris Climate Agreement, it sets the course for a global transition towards sustainable and low-emission living and economic practices. For Liebherr-Hausgeräte GmbH, it is clear that businesses and industry must make a decisive contribution to implementing the sustainability agenda – this is the only way we can create the basis for a society worth living in.

In this Corporate Responsibility Report, we have for the first time explicitly set out our contribution to achieving the United Nations' Sustainable Development Goals (SDGs). We can make a material contribution to eight of these SDGs. We are confident that we will continue to expand these contributions together with our stakeholders in the coming years.

Climate protection in particular is one of our most pressing problems, as emphasised by the European Union's "Green Deal" with its target of climate neutrality by 2050. In this context, we have set ourselves ambitious goals and already achieved a great deal. We have, for example, been able to reduce our CO₂ footprint at our European production sites by more than 60% in the last two years. At our sites, we consistently monitor our energy consumption and will use green electricity at all European production sites by 2022. This means a CO₂ saving of around 80% compared to 2017. We want to achieve our goal of climate neutrality* at our European production sites by 2030 at the latest.

“Our business decisions are always made in harmony with the economy, environment and society.”

For over 60 years, customers have trusted Liebherr fridges and freezers. And that is not a surprise – our products stand for first-class quality. For us, top quality also means we always aim to balance economy, ecology and society. This is why we apply the principle of sustainability in all the areas of our business. We make our most important contribution to a sustainable future by consistently using modern and resource-efficient technologies. Our appliances are already among the most energy efficient and durable on the market. At our facilities, we pay particular attention to the protection of the environment, energy consumption and the responsible use of resources. We offer our employees an attractive workplace and a healthy working environment. We promote diversity and entrepreneurial action and, in working together, rely on decency, mutual respect, fairness and trust.

In 2015, we enshrined at a strategic level our commitment to acting responsibly in our "Guidelines for Sustainable Management". Together with our stakeholders, we also defined

the key areas of sustainability that are essential to us – while observing global environmental and social challenges. In addition, we created an organisational structure that enables us to make our contribution to achieving the global sustainability objectives. In general, we see Corporate Responsibility as a process that needs to be continuously honed and expanded. That is why we regularly revise our Corporate Responsibility strategy and adjust our goals. In the next few years, we will focus on climate protection and the expansion of our stakeholder communication; we will also task ourselves to focus even more strongly and consistently on aspects of sustainability in our supply chain.

In future, we will keep you continuously informed about this process and all our concrete steps through regular Corporate Responsibility reporting. Your opinions and expectations are very important to us. We therefore look forward to receiving your suggestions and feedback.

The management of Liebherr-Hausgeräte GmbH



Steffen Nagel



Dr. Clemens Philippson



Detlef Walther

Liebherr Group

Founded in 1949 by Hans Liebherr, the company is now a global group of companies – with 48,049 current employees in over 140 companies on all continents.

[102-11/16/18/22/29] The Liebherr family business was founded in 1949 by Hans Liebherr and has grown into a global group of companies: Liebherr currently employs 48,049 people in over 140 companies with over 40 production companies on all continents. In the financial year 2019, Liebherr achieved the highest turnover in the history of the company with € 11.7 bn, the third record turnover in a row. More than 8% (€ 983 m) of total turnover was derived from the Domestic Appliances Division.

The divisional controlling companies are responsible for the overall operational management of the individual product segments.

The decision-making and management body of the Group is a shareholders' committee made up exclusively of members of the Liebherr family. This committee decides on all the fundamental questions in respect of the business, development and product policy as well as the financial and investment policy. The family shareholders are aware of their entrepreneurial responsibility. They set a clear and structured path for the solid development of the company. Providing job security and maintaining the business's integrity as a business partner constitute important corporate directives in this regard. Liebherr is an independent family business that is now run jointly by the second and third generations. This continuity characterises the Group and is the solid foundation of its success.

The holding company of the Group is Liebherr-International AG in Bulle (Switzerland). The Group has a decentralised organisational structure and is divided into eleven independently operating product divisions. The structure of the Group ensures uniformity in central corporate issues and enables it to react quickly to market requirements at the division level. This decentralised structure has several advantages: It enables us to be very close to our customers and allows us to adapt flexibly to changes. Moreover, new ideas can be implemented quickly thanks to the flat hierarchies.



The family shareholders active in the Group (from left to right): Jan Liebherr, Stéfanie Wohlfarth, Sophie Albrecht, Philipp Liebherr, Patricia Rűf, Johanna Platt, Isolde Liebherr, Willi Liebherr

1949

The family business established by Hans Liebherr



48,049
Employees



>140
companies

€ 11,750 m

in 2019, the highest turnover in the history of the company

8%

of the total turnover by the Domestic Appliances Division

LIEBHERR

The value-oriented corporate culture ensures a strong cohesion between its employees and a relationship with partners and customers that is based on trust. Due to a high equity ratio, Liebherr is able to grow predominantly organically, i.e. on the basis of its own efforts. For long-term and forward-looking success, profits are reinvested and remain in the company.

Sustainability

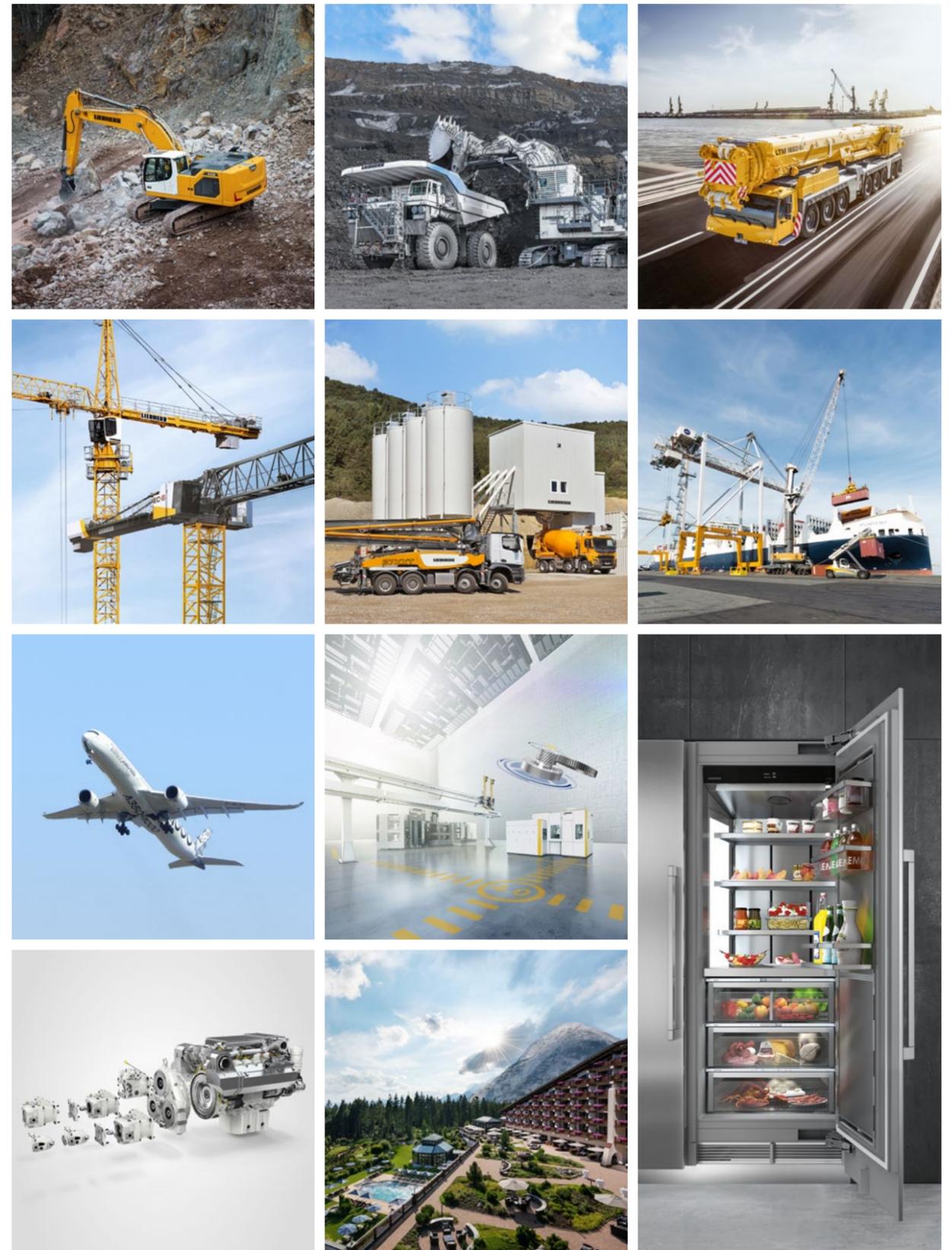
The Group aspires to generate sustainable value for its employees, customers and suppliers and for society as a whole. As an independent family company with a long-term focus, Liebherr is aware of its responsibilities and is committed to sustainable development. Its products, processes and infrastructure are geared to the minimum possible consumption of resources. The focus in all areas is on safety, efficiency and environmental sustainability. Over the past two years, a large number of the Group's companies worked on projects looking at social, environmental and economic aspects of sustainability.



Stéfanie Wohlfarth on the social contribution of the company:

“Our contribution in a narrower sense is, of course, that we are an employer for more than 48,000 employees – and partner to numerous suppliers and customers. We are well aware of the responsibility this entails: We have a duty to always be the best in our class and to lead the way with innovations. At the same time, we must continue to develop our company in a constant and stable manner. In a wider sense, we thus not only contribute to employment, but also fulfil social tasks.”

The divisions of the Group



€ 51 m

Investments in 2019
(+18.6% compared to 2018)

€ 983 m

Turnover in 2019
(+4.0% compared to 2018)

6,190
Employees in 2019
(-0.3% compared to 2018)

2.24 m

Turnover in 2019:
Number of fridges and freezers
(-1.0% compared to 2018)

5
production sites
worldwide

Liebherr-Hausgeräte GmbH

As part of the Liebherr Group, the Liebherr-Hausgeräte Division has been developing, producing and selling a wide range of high-quality fridges and freezers since 1954. We always inspire our customers with new benefits and also exceed the limits of what was previously possible. We are always one step ahead, and we already have our eyes on tomorrow. With more than six decades of experience in the refrigeration and freezing sector, we are one of the leading European suppliers – with sales of over 2.2 million appliances (2019).

The Domestic Appliances Division

[102-1/2/3/4/5/11/18/45, 103-1/2/3] At our five production sites in Ochsenhausen (Germany), Lienz (Austria), Radinovo (Bulgaria), Kluang (Malaysia) and Aurangabad (India), we develop and produce energy-efficient fridges and freezers for the household and commercial sectors that meet the requirements of our customers through their outstanding quality, timeless design and innovative technologies.

In the domestic appliances sector, our product range includes

- Free-standing and table top fridges
- Fridge-freezers
- Built-in appliances
- Free-standing and table top freezers
- Chest freezers
- Wine cabinets
- Digital services

In the commercial sector, we offer extensive special programs for

- Hotels and gastronomy
- Bakeries
- Food retailers
- Research and laboratory
- Beverage industry
- Frozen food and ice cream industry

As part of a differentiation strategy, the Sales & Marketing Department is responsible for the key management of the division's global sales and marketing activities. Selected sales intermediaries and our own sales and service companies in Switzerland, Germany, Austria, Bulgaria, Great Britain, Singapore, Malaysia, USA, Canada, Russia, Brazil, India and South Africa ensure the value-added marketing of our products and services. Together with the Product Management, Communication & Brand Management, Customer Service and eBusiness Departments, the business areas are working on the successful implementation of a sales and marketing strategy geared to target audiences, which is designed to offer our customers added value they can experience every day.

The parent company of the Domestic Appliances Division is Liebherr-Hausgeräte GmbH based in Ochsenhausen. It manages the operation of the production and distribution companies in the various countries. Management consists of three equally ranking directors in the departments of Sales & Marketing, Operations, and Finance & Administration. The end of the financial year is 31 December of each year.

We are the specialist for cooling and freezing and offer the highest quality in everything we do.

Our business model

In the areas of quality and refrigeration technology we are the market leader. We develop products characterised by the highest levels of energy efficiency and ease of use. We continuously invest in research and development. Our five production sites form a modern and flexible manufacturing network that enables us to cover all major market segments optimally. We sell our products and services worldwide, both through our sales and service companies and through responsible partners. We enjoy a long and trusting relationship with our partners. We support them in their work, for example, through regular training. Our value-added-oriented marketing concept ensures that our sales and trading partners are able to present our fridges and freezers in a sophisticated manner. A competent, customer-oriented service rounds off our business model.

Our Vision

Every day
we inspire our customers
with smart fridges
and customised solutions.

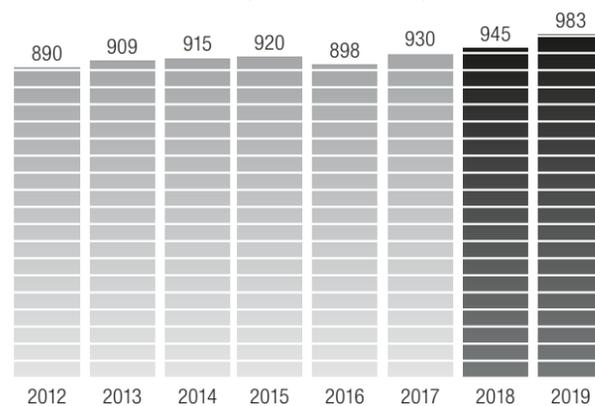
Turnover and sales development

[102-6/7/8, 201-1] In 2019 we sold 2.24 million fridges and freezers worldwide. For comparison: In 2018, we sold 2.262 million appliances, or -1.0%. By the end of fiscal year 2019 we had achieved a turnover of € 983 m. In 2018 it was € 945 m, or +4.0%.

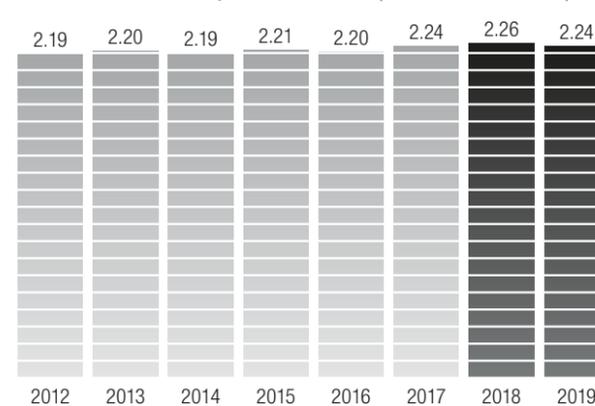
In 2019, the global market for large domestic appliances developed positively. Despite a slight drop in orders, the Domestic Appliances Division was able to increase its turnover. There was an overall increase in Europe with significant growth in Germany, Bulgaria, Russia and Austria, for example. Turnover also saw an encouraging increase in Asia and Oceania. India in particular, where the division opened a state-of-the-art plant in the previous year, provided a strong impetus for growth. While turnover in the North American market and in the Africa/Middle East region rose slightly, South and Central America showed a downward trend.

We approached the highly dynamic, highly competitive market environment by consistently focusing on added value for our customers. In early 2019 we bundled all sales activities in Germany into the newly established Liebherr-Hausgeräte Vertriebs- und Service GmbH. In addition, we invested in a modern customer centre at our site in Ochsenhausen (Germany). Since June 2019, visitors have been able to experience the current product range of fridges and freezers here first hand. A gratifying highlight was the presentation of the iF Design Award for two appliances from the Monolith range. These two products thus make a unique design statement and embody a new dimension of luxury in the built-in segment. Both Monolith products enable SmartDevice technology, a combination of smartphone and fridge. This allows customers to use available services and make settings on the appliance at any time, regardless of location.

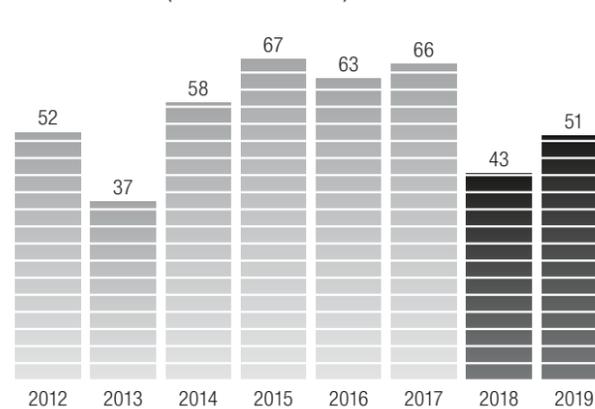
Sales performance (in millions of €)



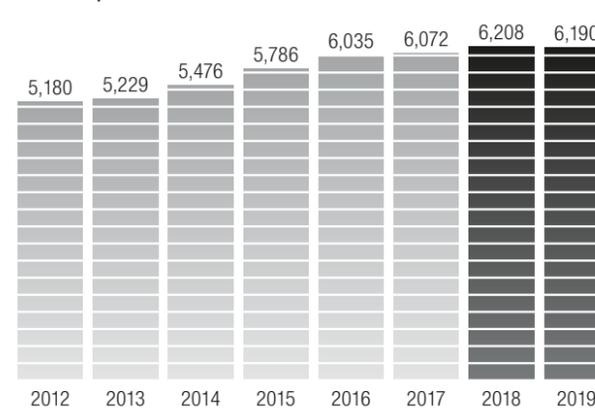
Worldwide sales performance (millions of units)



Investments (in millions of €)



Development of the entire workforce worldwide



Employees

In 2019, we employed a total of 6,190 employees. In 2018 the figure was 6,208, or -0.3%. During the reporting period and in the preceding years, there were no compulsory redundancies at any of our locations. Continuous investment is part of a future-oriented and responsible location policy. At Liebherr, our cooperation with our employees is characterised by a pragmatic working style as well as mutual respect, fairness and trust. Accordingly, all employees have significant freedom in their areas of responsibility. It is particularly important that everyone understands what they are responsible for. It is the commitment of each individual that contributes to the success of the company. Recognising this and implementing it in our everyday work is of particular importance to us. Our employees identify with the company and they all share a passion for high-quality technology. This strengthens international cohesion and promotes transnational teamwork within the Group. At every location and in each country, our employees receive the technical and personal support that they require. Here, anyone who shares our enthusiasm and makes an active contribution will find a home for themselves professionally and an unexpected abundance of opportunities.

Investments

The total investment in 2019 was € 51 m (in 2018: € 43 m, +18.6%). The main focus of investment was on new product projects and customer-oriented digital solutions, service models and business models. In addition, Liebherr-Hausgeräte GmbH invested in a new customer centre for the division in Ochsenhausen (Germany).

Strategic orientation

We aim to continue growing profitably in a clearly structured manner and to secure our profitability through innovative strength, a market-oriented product range and cost orientation. Due to the increasing dynamism in global markets, customer centricity is the key factor for success, now more than ever. For this reason, a consistent focus on the customer plays a central role in the Domestic Appliances Division. Our four strategic priorities are based on our vision, which is that "Every day we inspire our customers with smart fridges and customised solutions":

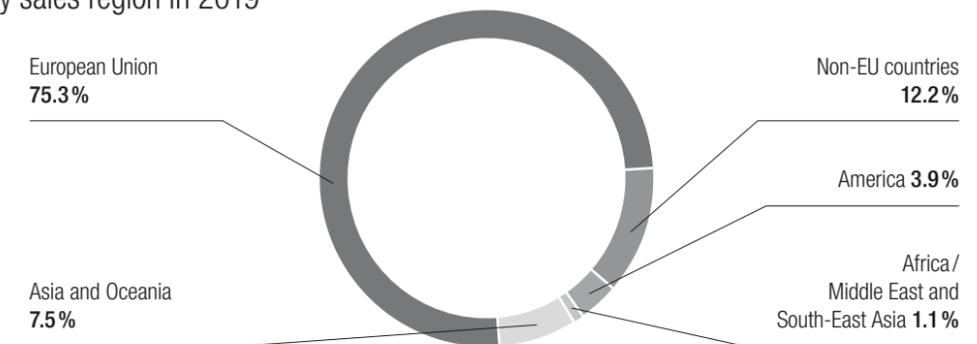
- Active scaling of the European core market
- Promotion of focused internationalisation
- Expansion of the commercial area
- achievement of significant value contribution through digital business models

Since 2019, these priorities have been pointing the way forward for the Domestic Appliances Division.

We plan for the long term and our growth is organic.

In Europe, we want to continue to play a significant role in the upmarket price segment. Outside Europe, especially in the American and Asian economic areas, we want to continue growing with products and services tailored to the specific requirements of the individual markets. This includes the luxurious Monolith range especially for the American market: With its clear lines, innovative functions and exceptional design; Monolith integrates seamlessly into any kitchen design.

Turnover by sales region in 2019



Liebherr-Hausgeräte Corporate Policy

[102-11, 102-14/15/16/17/18, 103-1/2/3] We are a globally active **family-owned company** and as such we have a great responsibility to society, the environment, our customers, our employees and our suppliers. We are convinced that we can only achieve long term success if we always give due consideration to this in our actions and achieve the best possible harmony of economy, ecology and social requirements.

This policy puts the basic values of the Liebherr Group into concrete terms and expresses what Liebherr-Hausgeräte GmbH sees as quality, sustainability and responsibility. It applies without exception to all our production sites.

Our ultimate objective is to be the “first choice” of our **customers**. We therefore want to be able to react flexibly to customers’ wishes and establish ourselves as their partner of choice in the long term. Our appliances feature innovative, green technologies, elegant design and a high standard of quality.

Our **quality** claim follows the logic of the “Zero-Error-Principle” which means that error prevention is the main focus. Our processes undergo **successive and continuous improvement** through the controls we have established.

Our **employees** are the key to our joint success. We are convinced that our committed employees can continue to maintain the quality of our products and services in the future. Our cooperation is based on the principles of decency, mutual respect, fairness and trust. We undertake to support our employees’ careers with basic and advanced training and to provide them with secure jobs and a healthy working environment. We also provide necessary information and resources to achieve the agreed objectives. These courses are designed to motivate our employees in the long term so that they each accept their responsibility for the company and to work with competence on the continuous improvement in the fields of quality, environment, energy and sustainability.

We want to reduce the **environmental effects** of our products and production plants by means of legal regulations and statutory guidelines. Compliance with all binding obligations is a matter of course for us. For this purpose, we want to steadily optimize our **use of resources** and improve our **energy-related performance**. Our products are designed to take the environment into account throughout their life cycles (definition, development, production, use and disposal). **Resource consumption** is to be continuously optimized, **energy-related and environmental performance** should be continuously improved. The energy required to produce our products and the development of greenhouse gases should be reduced in the long run.

The stress, adverse effects or dangers to which our employees, local residents and the environment are exposed are minimised. This applies even in the event emergencies and breakdowns. To achieve maximum **safety**, we have established precautions which are regularly reviewed, evaluated and, where necessary, developed.

Our **partners** such as **suppliers** and service providers are included in our quality, environment, energy and sustainability standards from an early phase. In the procurement of products and services, the new investment or the conversion of systems, we pay attention to the best solution from energy point of view.

We have a commitment to maintain an **open and objective dialogue** with our employees and the general public.

Our **integrated management system** is designed to satisfy these requirements and achieve our objectives. Its effectiveness is reviewed at regular intervals through audits and continuously improved.



Steffen Nagel

Dr. Clemens Philippson

Detlef Walther

Certifications

[102-11, 102-18/19/20] The production sites as well as the divisional controlling company have a quality management system certified according to ISO 9001 and an environmental management system certified according to ISO 14001. Since 2015, the Ochsenhausen site has also been certified according to ISO 50001 (energy management). Followed by the Lienz and Radinovo sites in 2018.

Our Integrated Management System combines quality, environmental and energy aspects.

In order to exploit synergies, we systematically implement the requirements of the three standards in a coordinated manner in a uniform, Integrated Management System (IMS). Occupational health and safety is organised on the basis of the standard ISO 45000. We have chosen not to seek external certification for the time being.

Integrated Management System

Location	Quality ISO 9001	Environment ISO 14001	Energy ISO 50001
Ochsenhausen (DE)	✓	✓	✓
Lienz (AT)	✓	✓	✓
Radinovo (BG)	✓	✓	✓
Kluang (MY)	✓	✓	–
Aurangabad (IND)	✓	–	–

Locations certified in accordance with quality, environmental and energy standards as at 2019

Audits

External and internal audits are carried out regularly to ensure conformity with standards and the functionality of the Integrated Management System. The group audit for ISO 9001 and ISO 14001 takes place in a matrix process. Consequently, our divisional controlling company for the Domestic Appliances Division and selected sites is audited annually by an external auditor. In addition, each location undergoes annual, internal system audits in the areas of quality, environment and hazard prevention.



Our production sites in Ochsenhausen, Lienz, Radinovo, Kluang and the new plant at the Aurangabad site (from top to bottom)

Responsibilities

The management of Liebherr-Hausgeräte GmbH bears primary responsibility for the organisation, monitoring and implementation of all measures. The senior management member responsible for all quality aspects of the management and environmental management system is executive board member, Dr. Clemens Philippson. He works closely with the overall quality management manager and the site managers. Together they ensure that the processes required for the quality management system are implemented and that the requirements of ISO 9001 are met at the individual sites.

In cooperation with environmental management officers and site managers, Dr. Clemens Philippson also ensures that the requirements of ISO 14001 are met and that employees comply with environmental standards. In addition, specially trained environmental consultants are available as contact persons in the different departments.

Management review

At least once a year, Management evaluates the effectiveness of the Integrated Management System in management reviews. In the review, the findings from audits and recommendations for improvements are taken into account, as is the status of preventive and corrective measures.

As part of a family business, we value integrity highly.

For us and our employees, it is a matter of course that we always comply with the law and consistently observe the internal standards and instructions of the Group.

Compliance

[103-1/2/3, 205-1/2, 206-1, 419-1] For us, the term compliance does not only mean fighting corruption. We also attach particular importance to compliance with competition law and foreign trade law. We help our managers and employees to behave with integrity and in accordance with the rules by providing various [Internal standards and instructions for conduct](#). Furthermore, managers and employees are trained in compliance training courses.

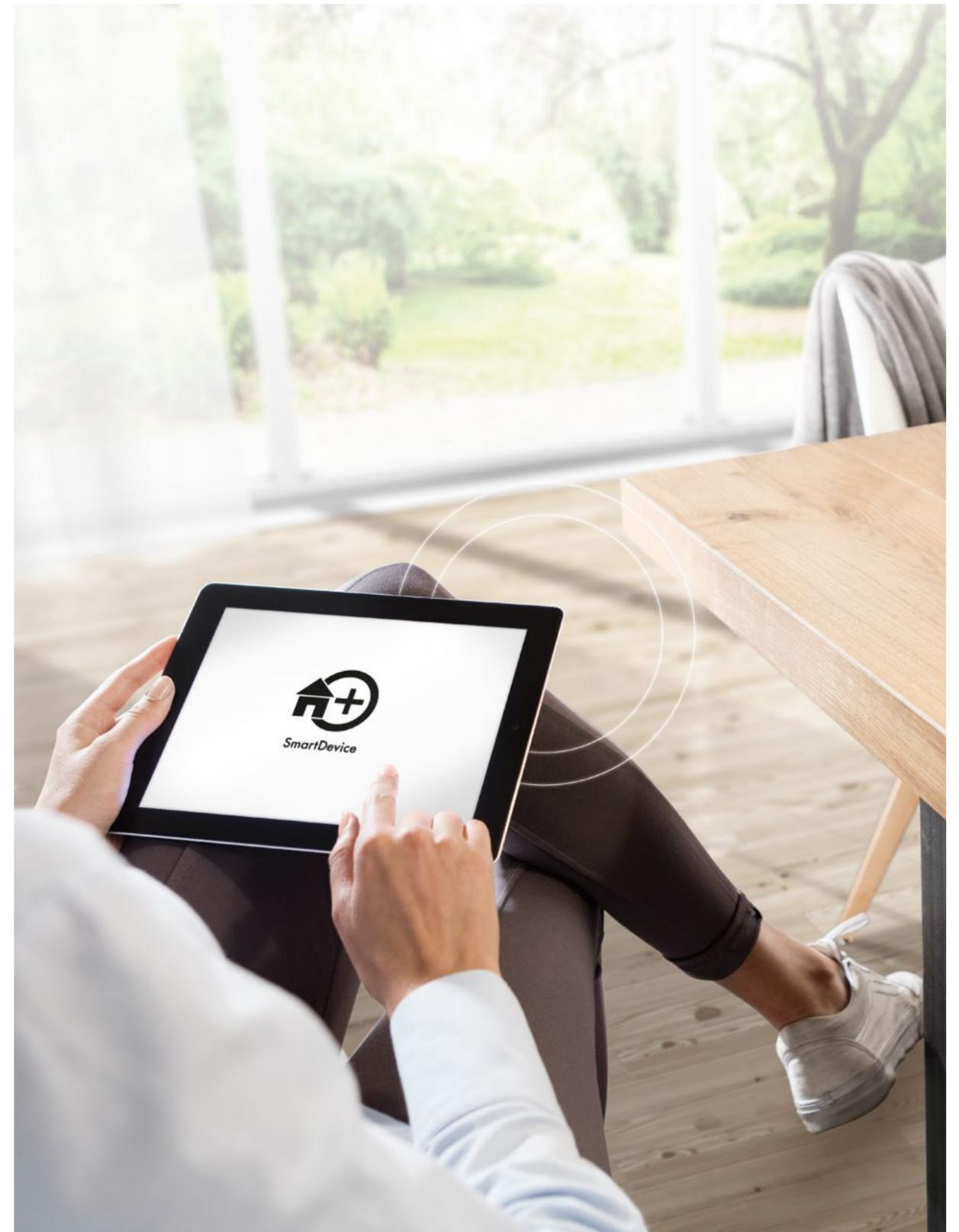
The Liebherr Group Code of Conduct

[102-16/17, 406-1, 408-1, 409-1, 412-1/2] The [Code of Conduct](#) drawn up by the Liebherr Group and its companies has been in force since 2009. It is a guideline for all employees and sets clear standards on integrity and the proper conduct of business. Our employees are required to use their judgement in a responsible and prudent manner and to be guided by honesty, reliability and integrity. They must not abuse their position to gain personal benefit. Similarly, they must not encourage or tolerate behaviour that is not in accordance with the Code of Conduct. Our business partners are also encouraged to comply with our Code of Conduct. Our employees can contact their superiors or the HR Department at any time with questions and comments and request assistance. New employees are informed of the Code of Conduct when they join the company. During the reporting period, no significant breaches of the Code of Conduct occurred in Liebherr-Hausgeräte GmbH.

Handling of personal data

[418-1] We ensure that the customer and employee data entrusted to us are handled in a reliable and trustworthy manner, and we manage these data exclusively on servers in our own data centres. The collection, storage and processing of all personal data is carried out according to the general data protection regulations. External contracts with sales and service partners must include a provision for the confidential handling and storage of data relating to the order. At the respective locations, data protection officers supervise compliance with national and international data protection regulations and internal guidelines. During the reporting period, there were no complaints of any breaches relating to data protection. There were also no cases of data theft or loss of personal data.

Today, what and how the employees of a company communicate on the internet is also relevant to the reputation of a company. In order to make it easier for employees to communicate on Facebook, Twitter, Xing etc., the Liebherr Group formulated social media guidelines in 2012. The guidelines provide tips and recommendations on how to avoid risks on the internet for employees and the company.

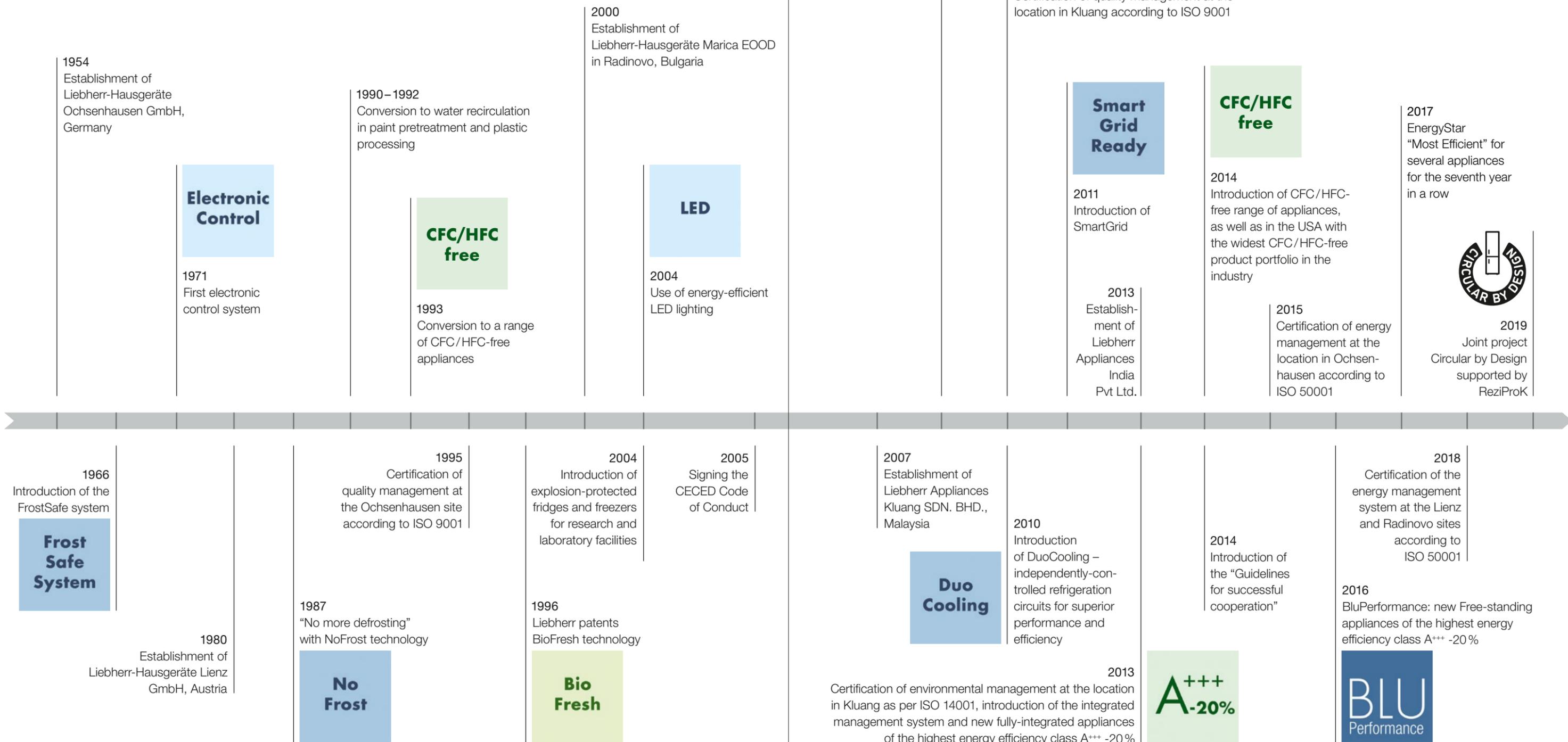


More comfort, safety & service – equipped for the future with SmartDevice

Sixty years of innovation for people and the environment

Developments from 1954 to 2019

The conversion to a range of CFC/HFC-free appliances, the zero degree compartment, the most energy-efficient fridges and freezers in the premium class – we have always been one of the pioneers in the industry.



Materiality analysis

Identifying issues with stakeholders

Guidelines for sustainable management

Balance between economy, ecology and society

Holistic Corporate Responsibility Strategy

Corporate Responsibility Management

The necessary structures in the company are the prerequisite for balancing economical, ecological and social matters.

Guidelines for sustainable management

[102-11/15/16/18/19/20/49, 201-2] As part of our Corporate Policy, our business decisions are in balance with the economy, ecology and society. The principle of sustainability applies to all areas of our business and is also required of our business partners. In addition, our Code of Conduct sets binding standards for correct business conduct and integrity. These are based on the basic values of the Group.

As a part of a family business oriented towards the long term, our division is characterised by solid economic management. This is the foundation on which we are able to contribute to shaping the future in a sustainable manner.

We pursue a holistic approach to environmental protection from an economic point of view that includes the entire life cycle of a product, from development, to production and use, to later disposal of the appliance. Key aspects are energy and resource management, waste management and climate protection. Our objective is to make a positive contribution to the communities of which our plants are an integral part and to which we feel particularly connected. We employ many people and have an important social role. We are aware of our responsibilities in the regions around our locations.

We are committed to a responsible approach to business at all levels.

Independent surveys also confirm that we at Liebherr-Hausgeräte GmbH clearly implement the core value of the Group: "We accept responsibility". In a nationwide survey of more than 495,000 consumers, Liebherr-Hausgeräte GmbH was awarded the "strong" rating for its sustainable commitment in 2018. The survey was conducted by ServiceValue in cooperation with Deutschland Test and Focus-Money.

In September 2019, the Lienz site for commercial appliance production received the certified EcoVadis silver status. EcoVadis is the world's leading provider of sustainability ratings. The award recognises the company's ongoing commitment to the environment, to labour and human rights, to ethics and to sustainable procurement.

Organisation of Corporate Responsibility

The management at Liebherr-Hausgeräte GmbH are the primary stewards of our Corporate Responsibility duties. The position of Corporate Responsibility Manager was established in 2013 to improve the harmonisation of individual measures. At the sites, the responsible person is supported by representatives from Product-Related and Operational Environmental Protection, Occupational Safety, Industrial Engineering, Product Management, Human Resources, Purchasing, Quality Control and Supply Chain Management.

Our stakeholders are at the centre of our Corporate Responsibility strategy.

[102-12/13/15/21/40/42/43/44/46/49, 201-2, 413-1] Stakeholders are all persons and organisations with whom we as a company maintain a relationship and who are in dialogue with us, who want to exchange ideas with us or who are interested in our company and its products. The specialist departments as well as the Management are in contact with the respective stakeholders in a variety of ways. We regard the regular exchange of ideas with all the relevant stakeholder groups as extremely important.

[102-40] Overview of the most important stakeholder groups with whom we are in regular contact

Owners/shareholders	Liebherr-Hausgeräte Companies	Employees
Customers	Suppliers/service providers	Environment
End customers, business customers, industrial customers, OEM customers, importers, trade/sales departments (channels), multinational corporate customers	Suppliers (production and non-production material), service providers (IT, logistics, marketing, disposal, product, operation/organisation), service partners	Liebherr companies, educational institutions/scientific institutions, official authorities/offices, local authorities, government organisations, NGOs, consumer organisations, associations/trade unions, banks/insurance companies, medical care facilities, external persons, public relations/media

Within the framework of product and company communication, we are in continuous dialogue with customers and business partners about the requirements of the customers, products and markets.

Our employees can actively influence and develop the company with its products and processes. The instruments we use to achieve this are company co-determination, employee surveys, strategic dialogue, idea management and the continuous improvement process.

At the European level, Liebherr-Hausgeräte GmbH is a member of the umbrella organisation of domestic appliance manufacturers APPLiA (previously CECED). At the national level, we are members of the central associations of the electrical engineering and electronic industries. In Germany, we are a member of the industrial association Haus-, Heiz- und Küchentechnik e.V. (HKI) and are active in the HAUS-GERÄTE+ initiative.

The production sites maintain close personal contacts with the surrounding communities and with residents at the sites and exchange information on site-specific topics on an ongoing basis. Through our press and public relations work, we maintain an open and factual discussion with the local editorial offices and inform them about company and product-related issues.

In the areas of product development, refrigeration technology and foodstuffs, we have long-term partnerships with various scientific institutes and university institutions. The company has so far rarely come into direct contact with interregional non-governmental organisations.

This report is based on the current guidelines of the Global Reporting Initiative (GRI) and therefore takes materiality into account as a principle. We regard as “material” those issues that are important for our company as well as for our stakeholders.

The key points of our Corporate Responsibility Management are based on the results of the materiality analysis.

In order to identify and prioritise key Corporate Responsibility issues, we exchange views with our stakeholders and discuss new or newly prioritised topics. In this way, we are constantly expanding the insights we have gained from the fundamental systematic stakeholder survey of 2015. In this survey, we wanted to get as accurate a picture as possible of our stakeholders’ concerns. To this end, we conducted telephone interviews and personal discussions with representatives of major multinational customers, trading partners, suppliers, associations, the media, NGOs and local authorities. In the online survey which followed, interested parties were able to evaluate key sustainability-related topics. We also evaluated other sources, such as previous customer and employee surveys, workshops in the company’s specialist departments and dialogues with representatives of individual stakeholder groups.

More than 90% of the interviewees generally regarded Corporate Responsibility as being of medium to high significance. As regards our products, we have received very good sustainability performance ratings. However, we discovered at the same time that many sustainable activities at the company level – such as operational environmental protection, observing environmental and social aspects in the supply chain or labour practices in the company – were unknown or only partially known to interviewees at the time.

The findings obtained were then discussed in internal workshops and supplemented with additional specific aspects. On this basis, we have identified the topics that are of material relevance for our stakeholders as well as for our company and which our specialist departments can directly influence.

We are continuously building on this and further developing the materiality analysis. We have thus been able to detect an increasing environmental awareness among our stakeholders – and this in turn has led us to adjust our priorities and areas of action. The main adjustments are that we have set specific climate targets for our organisation and integrated the United Nations Sustainable Development Goals (SDGs) into this report.

[102-47] Materiality matrix according to the relevance for our stakeholders and for our company

Relevance to our stakeholders	High	Highest
Highest	<ul style="list-style-type: none"> - Product labelling - Data protection policy 	<ul style="list-style-type: none"> - Energy efficiency - Product quality - Customer satisfaction - Product safety - Product design and environmentally compatible appliance development - Climate and environmental protection in the company
High	<ul style="list-style-type: none"> - Recycling/disposal processes - Environmental and social standards in the supply chain - Environmental impact due to logistics - Making visible our contribution towards achieving the SDGs - Social commitment 	<ul style="list-style-type: none"> - Supply and quality reliability in the supply chain - Environment/energy management - Use of materials - Digitalisation mega trend - Grocery storage management - Compliance
Medium	<ul style="list-style-type: none"> - Operational co-determination - Reconciliation of work and family life - Diversity and equal opportunities 	<ul style="list-style-type: none"> - Value-oriented cooperation - Education and training - Occupational safety - Health management
	High	Highest
	Relevance to our company	

Our Corporate Responsibility Strategy – a holistic approach

Liebherr is a family business with a long tradition that has firmly rooted core values. One of these core values is: We accept responsibility: “We aim at all times to fulfil our responsibility to society in general and to the environment.”

In order to live up to this core value, we handle the issue of Corporate Responsibility holistically and at all stages of the product life cycle (see illustration).

We pay attention to compliance with environmental and social standards as early as the supplier selection process. Equally important to us are materials that are free of hazardous substances, compliance with legal requirements such as REACh and RoHS, and food conformity.

We attach great importance to environmentally friendly product design when developing our appliances: We conduct research in the areas of green materials, climate-friendly refrigerants, plastic alternatives and resource efficiency. At the same time, we want to live up to our responsibility to our employees – in other words, to be a good employer: We are bound by collective bargaining agreements, encourage the active representation of our employees interests and we invest in the training and further education of our employees, occupational safety and occupational health management. Job security and the company pension scheme for our employees are also very important to us.

We have set ourselves ambitious climate targets for our European production sites. For example, by switching to green electricity in 2019, we were able to reduce our CO₂ emissions by 62% compared to 2017. By 2022, we will supply all European sites with a constant supply of climate-neutral electricity. By 2030, we aim to achieve climate neutrality* at our European sites.

The biggest lever for an effective contribution to climate protection lies in the use phase of fridges and freezers: In the case of highly energy-efficient appliances, two-thirds of CO₂ emissions occur during the use phase. For less energy-efficient appliances, the use phase can account for almost 90% of the total footprint. According to the current EU Energy Label Regulation, 88% of our domestic appliances sold in the EU in 2019 were in the top two energy efficiency classes (A++ and A+++). This is above average for the market as a whole.

We meet our product responsibility by implementing all legal requirements for fridges and freezers – including, of course, the labelling of our appliances. We want to support our customers in their sustainable lifestyle and help to avoid food waste through innovations such as BioFresh.

We also support our customers through our excellent repair service and the long availability of our spare parts. We run tests to ensure that all functional parts will have at least 15 years of service life, which enables our equipment to be used for a very long time. At the end of the product's life, we live up to our shared product responsibility as manufacturer: We bear the costs of the collection and disposal of used appliances. We also inform our customers about the correct disposal and provide them with the best possible support. That is why we also participate in corresponding national information campaigns.

During the recycling process, we inform the recyclers about possible hazardous substances by means of appropriate labelling. In this way, we contribute to hazard-free disposal. The aim is to recover as many raw materials as possible so that they can be returned to the material cycle.

To achieve this goal, we are a partner in the BMBF-funded joint project entitled “[Circular by Design](#): Resource Use Transition by Sustainable Product Design of Consumer Goods Using the Refrigerator/Freezer as a Case Study”. This scientific project explores new paths for resource efficiency in the circular economy.

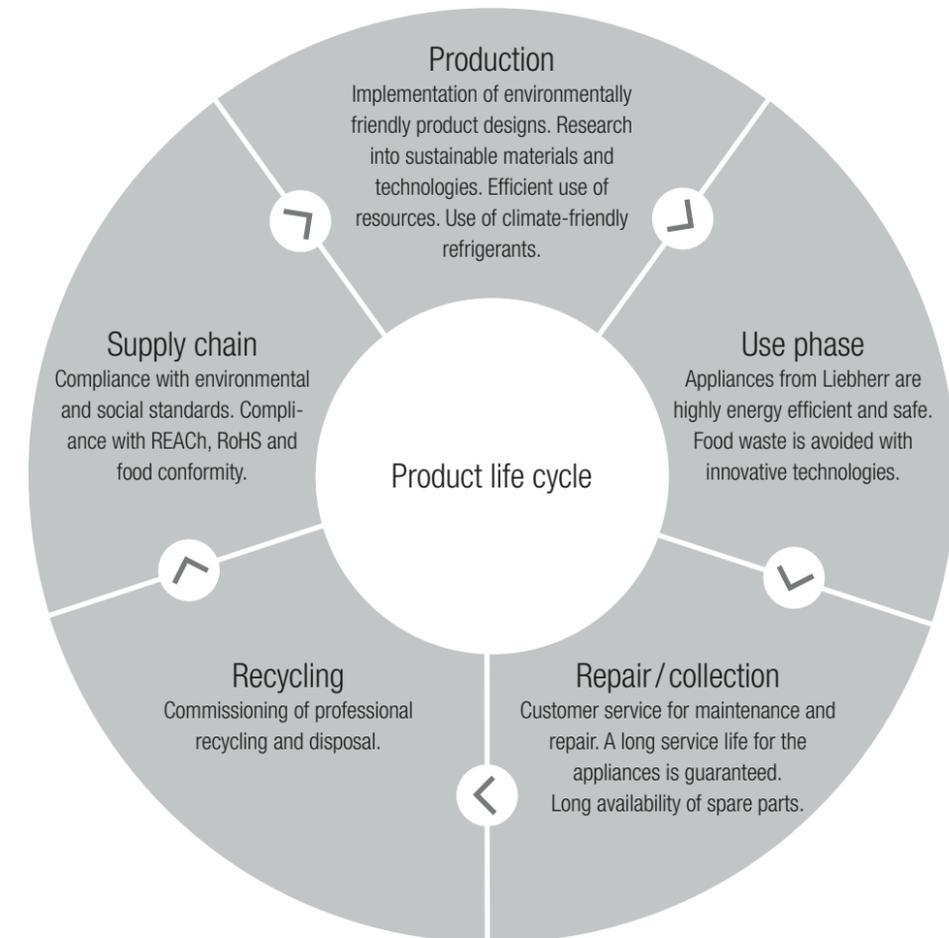
Our partners are

- the Helmholtz Institute Freiberg for Resource Technology
- the Wuppertal Institute for Climate, Environment and Energy gGmbH
- Folkwang University of the Arts
- BEC Becker Elektrorecycling Chemnitz GmbH
- Entsorgungsdienste Kreis Mittelsachsen GmbH (waste disposal services of the district of Mittelsachsen)

Even though the holistic Corporate Responsibility approach is at the centre of our work, we define parallel focus topics and the measures necessary to achieve them. In doing so, we hope to further develop our Corporate Responsibility strategy in those areas with the greatest leverage. After all, Corporate Responsibility Management is a process for continuously improving the sustainability performance of our company.

* in Scope 1 and Scope 2.

Our Corporate Responsibility strategy – a holistic approach





Sustainable Development Goals

Our contribution to achieving the Sustainable Development Goals (SDGs) of the United Nations.



[102-15, 102-49] In 2016, the United Nations called upon countries, institutions, companies and individuals worldwide to make visible their specific contribution to achieving the 17 ambitious goals towards sustainable development material. The aim is to eliminate fundamental injustices and barriers to participation in development and prosperity by 2030.

As a responsible company with a long-term perspective, we too are making our contribution to achieving these important goals. To this end, we are intensifying our efforts at particularly relevant points of leverage.

We have examined where we can achieve the most in our holistic Corporate Responsibility Management. In the process we have identified three goals to which we can make a significant contribution:



We are also making



an important contribution to these goals.

We also support these goals



in our daily work.

Production

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
 As a manufacturer of large electrical appliances, our most important contribution lies in goal 12 – responsible consumption and production: We set high environmental standards at the production stage and take energy and resource efficiency into account during product design. For example, we are continuously looking for green alternatives to existing materials. To minimise energy consumption in the manufacturing process, we prepare a detailed energy report. This enables us to identify potential savings at an early stage. We also handle chemicals and waste responsibly. We avoid unnecessary waste – even outside the production area.

13 CLIMATE ACTION
 The top priority for climate protection is to reduce emissions with global warming potential (GWP). We were the first refrigeration appliance manufacturer to switch to a CFC-free range of appliances as early as 1993. We will continue to avoid the use of HFOs (hydrofluoroolefins) as long as their environmental impact has not been clearly identified. We also no longer use HFCs (hydrofluorocarbons). We do without propellants with ODP (Ozone Depletion Potential) and use natural refrigerants with the lowest possible GWP.

Another important step is the reduction of CO₂ emissions in production. We have set ourselves ambitious goals in this area and have already achieved a great deal: By switching to green electricity, we have reduced CO₂ emissions by 62% within two years. By 2022, we want to supply all our European sites with green electricity and thus reduce CO₂ emissions by almost an additional 50%. By 2030, we want to become climate neutral at our European production sites in Scopes 1 and 2. This will further reduce the CO₂ footprint of our appliances.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
 With over 60 years of expertise in the refrigeration and freezing sector, innovation is our constant driving force. We are constantly researching new technologies to develop appliances that are even more energy-efficient. We also look for green alternatives for materials. With our energy-efficient appliances we contribute to a sustainable infrastructure. We also participate in research projects such as “Circular by Design”. In this way, we aim to optimise not only energy efficiency but also resource efficiency – and pave the way for a circular economy.

7 AFFORDABLE AND CLEAN ENERGY
 To make affordable and clean energy possible for everyone, we invest in the research and development of new and even cleaner technologies. We also support research projects in these areas. The aim is to reduce energy consumption and continuously increase energy efficiency.

8 DECENT WORK AND ECONOMIC GROWTH
 As a responsible manufacturer, we offer decent working conditions and long-term economic stability as a matter of course. We offer our employees secure jobs with good conditions and opportunities for co-determination. We respect trade unions and collective bargaining agreements. We do not tolerate negligence of human rights in our plants and in our supply chain.

3 GOOD HEALTH AND WELL-BEING
 The good health and well-being of our employees is important to us. For this reason, our sites have established their own company health management programmes and actively support employees in preventive healthcare. Occupational safety and emergency preparedness and response are continuously adapted to new requirements.

4 QUALITY EDUCATION
 We promote inclusive, fair and high-quality education, and we encourage life-long learning among our employees, trainees, students and school-children. To this end, we cooperate locally with a wide range of educational institutions and actively support them. We offer our employees numerous measures for personnel development.

5 GENDER EQUALITY
 Gender equality is a matter of course for us. We reject any form of discrimination. In particular, we support programs designed to get girls interested in technical professions. We also want to increase the proportion of women in management positions.

10 REDUCED INEQUALITIES
 The promotion of equal opportunities contributes to sustainable economic growth and strengthens the social cohesion of a society. Through our international activities, we help reduce inequalities.

Use phase

11 SUSTAINABLE CITIES AND COMMUNITIES
 We strengthen sustainable cities and communities through products with the lowest possible energy consumption. Through interconnectivity and SmartGrid-ready technology, we reduce the environmental impact of cities and support resource efficiency measures. We offer specific solutions for local requirements through adapted product design. Our freshness technologies ensure less food waste and less solid waste – which also makes cities and communities more sustainable.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
 Our fridges and freezers make their greatest contribution to reducing their CO₂ footprint in their use phase. For highly energy-efficient appliances, almost two-thirds of total CO₂ emissions occur during this phase. For less energy-efficient appliances this proportion is significantly higher. Here we provide our customers with considerable support in their desire for more responsible consumption, by helping them to avoid food waste with smart solutions for better grocery storage management. Where we can, we also remove market barriers that encourage wasteful consumption.

13 CLIMATE ACTION
 We contribute towards climate action with our appliances, which are highly energy-efficient during their use phase and thus reduce energy consumption over the entire service life of the appliances. We are also expanding our knowledge and ability to combat climate change.

7 AFFORDABLE AND CLEAN ENERGY
 With our energy-efficient appliances we reduce electricity consumption and provide easier access to affordable and clean energy.

3 GOOD HEALTH AND WELL-BEING
 We support the good health and well-being of our customers by providing the best possible refrigeration technology. This technology helps keep groceries fresh for longer, making it easier to enjoy a healthy, balanced diet without wasting food.

2 ZERO WASTE
 Storing groceries under optimal climatic conditions is an important contribution to preventing food waste.

Repair / disposal

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
 For responsible consumption it is important that appliances are easy to repair and last as long as possible. For some time now, we have offered spare parts which are available for at least 10 years, and we run tests on the functional parts of our products to ensure a minimum 15-year durability. This is intended to postpone the actual date of disposal of our devices. In this way, we keep the environmental impact as low as possible.

13 CLIMATE ACTION
 The very long service life of our appliances contributes to climate protection. We support campaigns to increase the collection rate for used electrical appliances in order to increase resource efficiency and recover valuable raw materials.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
 We support our customers with a high-quality repair service and long-term availability of spare parts. We meet all requirements of the EU Eco-design Directive.

11 SUSTAINABLE CITIES AND COMMUNITIES
 With our durable products, we ensure less (electrical) waste – and thus promote the sustainability of cities and communities. We also support campaigns to increase the collection rate of used electrical appliances.

Recycling

13 CLIMATE ACTION
 The recovery of valuable raw materials also contributes to climate protection. By disposing of harmful substances correctly, we keep the environmental impact as low as possible.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
 We work closely with recyclers to improve the recovery rates for raw materials. In this way, we want to come ever closer to a circular economy. We also support research projects to improve resource efficiency – for example “Circular by Design”.

8 DECENT WORK AND ECONOMIC GROWTH
 Our fair employment contracts ensure decent work and economic growth for everyone involved. We only work with selected recyclers.

Supply chain

13 CLIMATE ACTION
 We also contribute to climate researching and action by avoiding harmful substances and developing green material alternatives. We also minimise the number of transports and the associated emissions.

8 DECENT WORK AND ECONOMIC GROWTH
 We ensure compliance with human rights due diligence obligations along the supply chain. In this way, we support decent work and economic growth for all. For example, we monitor the supply chain for conflict minerals and for child and forced labour. According to our Code of Conduct, fair contracts with our suppliers are a matter of course.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
 We pay attention to the sustainable purchase of production materials and check whether fundamental environmental and social standards are observed. We ensure that our purchased materials comply with REACH and RoHS compliance standards.

At least
10 years
availability of spare parts

88%
of appliances in the domestic sector
with the best energy efficiency
A++ or A+++

Functional parts are tested
for a service life of
15 years

High
recyclability
of materials

Lower product carbon footprint thanks to
high energy efficiency

REACH and
RoHS compliance

Research
in increasing
resource efficiency



Products

With our durable, energy and resource-efficient products, we want to make a contribution to a sustainable economy and lifestyle.



Environmentally compatible product development

[416-1] We take environmental aspects into account at an early stage of product development, for example, by using only the latest technologies. Internal processes and procedural descriptions ensure that

- New products are developed in the most environmentally friendly way possible
- Environmentally relevant aspects are considered in design, manufacturing, use and disposal
- There is compliance with prohibitions or restrictions in respect of certain substances
- The requirements for contact with food and, if applicable, drinking water are fulfilled
- Related documentation obligations are fulfilled
- Serial products are investigated to determine whether they can be reworked and developed to be more environmentally compatible

In order to improve the recyclability of used appliances, we regularly exchange information with our disposal service providers. At the same time we commission and evaluate recycling studies. The resulting insights are directly integrated into appliance development. We also rely on life cycle analyses, life cycle assessments and product carbon footprint analyses.

We want to offer both our customers and the environment the highest possible level of product safety. For this reason, the materials and components of our appliances undergo comprehensive tests and service life tests. By using suitable materials and monitoring them regularly in the laboratory, we ensure that all parts are food-compliant. We inspect vendor parts and materials both internally and externally for harmful substances and inform suppliers of prohibited substances and other requirements by means of delivery specifications.

The EU REACH Regulation and RoHS Directive are critical in this regard. We have the conformity of all components that come into contact with food confirmed by our suppliers and check these statements through our own ongoing analyses.

Influence of the use phase on the life cycle assessment

Several studies have shown that the ecological footprint (Product Carbon Footprint) of a refrigerator and freezer is significantly influenced by the use phase. Looking at the life cycle assessment of very energy-efficient appliances, the use phase, at a service life of 15 years in 24-hour operation, accounts for 76 % of the CO₂ footprint. Production including the materials used have a share of approximately 17 %. With only average energy-efficient appliances, the footprint of the use phase amounts to up to 90 %. The choice of energy efficiency class for an appliance therefore has a decisive influence on its ecological footprint.

Widest product range of energy-efficient appliances

The use phase is responsible for about two thirds of the environmental impacts caused by domestic and commercial appliances. Therefore, the energy consumption of the appliances is of crucial importance. The energy efficiency of the appliances is therefore a key issue for us and for our customers. This is particularly important in view of rising energy costs and climate change. That is another reason for us to offer the widest product range of fridges and freezers worldwide, in the best energy efficiency classes.

In recent years, we have continuously improved the energy efficiency of our domestic and commercial appliances – above all through these measures:

- Further development of precise electronic controls
- Optimisation of refrigeration components
- Use of high-efficiency insulation materials and efficient speed-controlled compressors

The NoFrost and DuoCooling functions, the Vario energy-saving panel and the switch to more efficient LED lighting concepts have also continuously increased energy efficiency.

For decades, we have been the leading innovators in energy efficiency.

Two thirds

of the environmental impact caused by domestic and commercial appliances is attributable to the use phase.

These improvements have reduced overall energy consumption by up to a quarter. Across the entire range of products, the appliances are equipped with a series of additional Eco functions to reduce consumption. For example, the defrosting process of the current generation of supermarket freezer chests starts quickly and efficiently and uses hot-gas entirely without electric heating – and can be set to start manually or automatically twice a week.



Selected Liebherr appliances can already be integrated into intelligent power grids with a retrofitted SmartGrid-ready module

Innovations for low energy consumption

[302-5, 103-1/2/3, 417-1/2/3] Over the last two years, we have been able to significantly reduce the energy consumption of our appliances further through consistent innovation. In the 2019 reporting year, nearly 88% of the fridges and freezers for domestic use produced for EU countries corresponded to the two best energy efficiency classes A++ and A+++. This represents an increase of 4% (compared to 2017: 84%).

88%

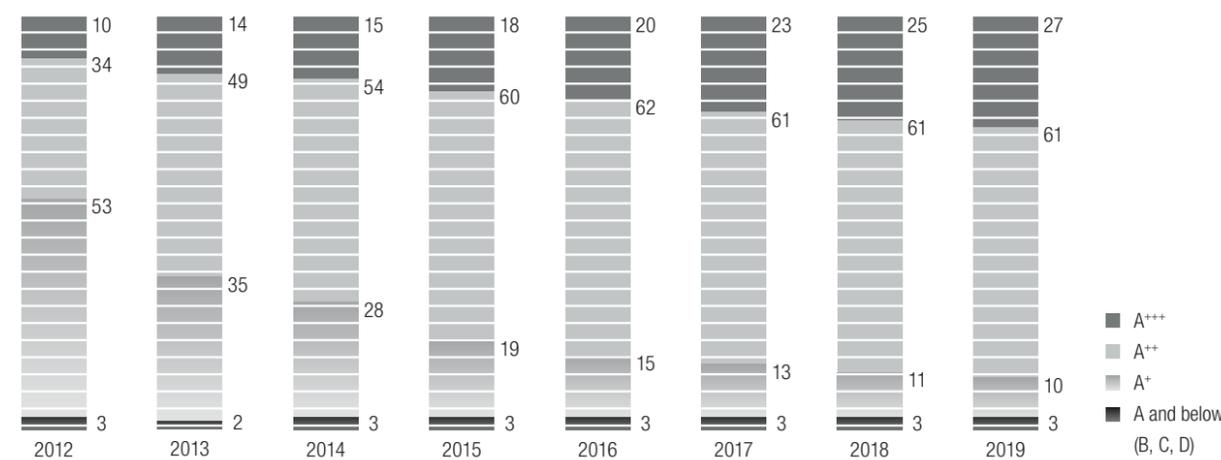
of the fridges and freezers for domestic use produced for EU countries corresponded to the two best energy efficiency classes A++ and A+++ in 2019.

The BluPerformance generation of freestanding appliances introduced in 2015 also established that comfort and saving energy do not need to exclude each other. In 2019, all 57 appliance types are in the best efficiency class A+++ or are even 20% more efficient. Moving the technological module into the base of the appliance has made new component arrangements possible. In addition, the range offers significantly more usable volume, minimised operating noise and improved ergonomics. Programmes such as EnergySaver and HolidayMode offer further potential for savings and help to conserve resources.

In future, SmartGrids (intelligent power grids) will also reduce energy-related environmental pollution and cut electricity consumption. The fridge does this by building up refrigeration reserves that can be delivered at a later stage. Simultaneously, the appliance automatically selects and uses the most favourable electricity price. In this way, up to 10% of electricity costs can be saved. Selected Liebherr appliances can already be integrated into intelligent power grids with a retrofitted module.

Liebherr was one of the first manufacturers of fridges and freezers of the highest energy efficiency class A+++. These appliances require about 60% less energy than energy efficiency class A appliances – and this in spite of the additional technologies of BioFresh and NoFrost.

Percentage of the appliances according to the Energy Consumption Labelling Act (measured by number of units)



Product labelling

[417-1/2/3] All Liebherr fridges and freezers manufactured for the European market are marked with the EU energy label at the plant. Our 100% compliance with the labelling requirements was confirmed in 2014 by the ATLETE project initiated by the EU. In addition, each appliance has a type plate giving information specific to the appliance when it leaves the plant. The accompanying operating instructions contain all safety-relevant aspects for the use and proper disposal of used appliances and packaging materials. They also provide tips on how to save energy and how to store goods correctly. There were no violations of the labelling requirements in the reporting period.

In the domestic appliances sector, a new EU energy label for electrical appliances will be introduced in 2021

It will soon be easier to distinguish efficient from inefficient appliances:

The existing label is currently of only very limited help in the purchasing decision. Due to the technological development of appliances over recent years, products on offer have become increasingly concentrated at the top of the efficiency scale. Therefore, as well as class A, there are now also classes A+, A++ and A+++. Consumers are now spared a fourth or fifth plus.

With the upcoming reform of the energy label, appliances will again be distributed more broadly and clearly on the efficiency scale from A to G. It is not yet clear which label the current efficiency classes will receive because different measuring methods are used. The new label will only be officially introduced on 1 March 2021.

Further information about the new energy label is available on the official website of the European domestic appliance association APPLiA: www.theenergylabel.eu

The energy label will change significantly. This affects both the efficiency classes and the type and scope of other information elements. The QR code as a link to the EPREL database is also new.

The new energy efficiency classes cannot simply be derived from the old label. Their calculation is complex and takes into account various factors that can influence the result upwards or downwards. These factors include, for example, the type of appliance, the operating principle, the number and size of storage compartments or special features such as an automatic defrosting function.

For the new label, the measurement and calculation methods in the EN 62552 standard have been revised. They can now be adapted even better to real household conditions.

The EPREL product database creates transparency – and more transparency creates more efficiency

The European Commission launched an electronic database for energy-related products in 2019: EPREL (European Product Database For Energy Labelling).

The database lists all refrigerators and freezers available on the market. It contains all relevant information on the appliances: for example, manufacturer data, model identification and efficiency classes. This creates maximum transparency and good comparability for retailers and consumers – also in the area of sustainability.

The most environmentally friendly products on the market can be filtered out more easily using EPREL.

Besides the public part, the product database also has a non-public part, known as the “conformity part”. Here, in addition to the declaration values, information on the measured values is also listed. This part is subject to strict safety precautions and is only accessible to the market surveillance authorities and the European Commission.

What we do for efficient appliances

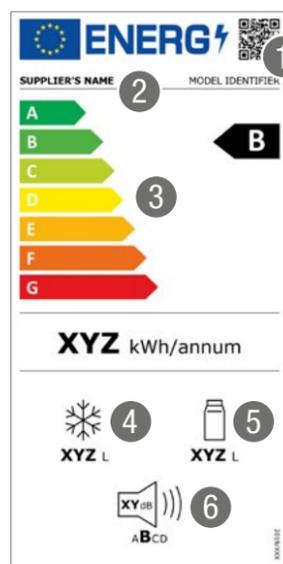
At all our production sites there are development centres with modern equipment. There, researchers and engineers work, among other things, to make our appliances ever more efficient – with modern electronics and optimised refrigeration circuits, for example.

*The technology is constantly evolving.
That is why we never stand still.*

New equipment features are also designed to make everyday work easier, optimise storage and reduce consumption. We were one of the first manufacturers in Europe to develop refrigerators and freezers with the highest efficiency class to date, A+++ . It is no coincidence that an above-average number of Liebherr appliances are at the top of the energy efficiency scale. This is also our ambition for the future.

Contribution to climate protection

Refrigerators and freezers are in use around the clock and are responsible for up to 15 percent of the electricity bill. Liebherr appliances consume less energy and thus make an important contribution to climate protection.



This is what the new EU energy label for fridges and freezers looks like:

1. QR-Code to identify the product in the EU database EPREL (European Product Database for Energy Labelling).
2. The model identifier for manual identification of the product in the EU database EPREL, for example, via the article number.
3. The new efficiency scale from A to G. However, “G” is only intended for wine coolers.
4. The volume of all freezer compartments in litres.
5. The volume of all fridge compartments in litres.
6. The noise level is now classified in classes “A” to “D”.



Features for economical consumption

Efficiency at all levels

To achieve the best possible energy efficiency, we make the best possible use of the savings potential of each individual appliance component. This applies to materials, functional parts, features and the electronic control system, which ensures optimum interaction.

Insulation

Good insulation makes a decisive contribution to saving electricity. It ensures that the cold stays where it belongs: in the appliance. We are constantly developing our insulation materials and working on new compositions. We optimise the insulation properties in such a way that the maximum usable space inside is maintained despite an effective insulation layer.

VCC compressors

The new compressors use modern electronics and refrigeration technology to ensure that the appliances are particularly energy-efficient. Thanks to their low speed, they run very quietly and with very little vibration. The high performance of the compressors enables rapid cooling as soon as cooling capacity is required.



Base technology

In BluPerformance appliances, the cooling technology is compactly integrated in the appliance base. This means that the condenser on the rear panel and the evaporator tray on the compressor are no longer needed. This creates space for a significantly larger usable volume. The appliances are also equipped with highly efficient compressors and precise electronic controls and are very energy-efficient.

Precise control

Modern electronics ensure that all refrigerators and freezers use only the energy that is actually required. Temperature sensors measure both the internal and the ambient temperature. The control system adjusts the speed of the compressor accordingly. It also detects as soon as the door is opened and switches off the fan. If the door is open for more than 60 seconds, an alarm signal sounds. This also protects frozen food.

DuoCooling

Refrigeration and freezer combinations have two completely separately controllable refrigeration circuits. This allows the temperature to be set independently and precisely in each case. There is no air exchange between the fridge and freezer compartments. Odour transmission or drying out of stored food is thus prevented.



The CBNes 5778 fridge freezer is characterised, amongst other things, by its excellent energy efficiency (A+++)

NoFrost

Regular defrosting saves electricity. With the NoFrost function, this process takes place automatically. As soon as the evaporator builds up a layer of ice, a sensor initiates the defrosting process. The fan switches off, the evaporator tubes are heated and the ice layer melts without increasing the temperature in the freezer compartment. The appliance remains ice-free and its energy consumption remains constant.

LED lighting

There is no getting around LEDs for energy-saving lighting. They combine long service life with low consumption. We have developed our own LED lighting concept that both saves energy and pleasantly illuminates the interior.

SmartGrid-ready

All appliances that can be integrated into smart grids with a retrofittable module are SmartGrid-ready. The principle: While the electricity price is low, the freezer creates cold reserves that are released in "expensive" hours. The appliance also automatically selects and uses the most favourable electricity price. In this way, up to 10% of electricity costs can be saved long-term. Smart grids are still future projects, but SmartGrid-ready appliances are already prepared for them today.

How we extend product life

With the new EU energy label, new eco-design regulations will also come into force on 1 March 2021. The objective: To significantly reduce the consumption of energy and resources in Europe. An important cornerstone of this is the extension of product life.

For example, manufacturers must keep essential spare parts in stock for this purpose: seven or ten years – depending on the product or whether it is a private or commercial repair. It must also be possible to exchange the spare parts with commercially available tools. This is intended to simplify repairs and motivate consumers to use the devices for longer.

Liebherr expressly supports this approach – we have always been committed to product quality and durability. We run tests to ensure all functional parts have a 15-year service life.

Many points of the new regulation have been a matter of course for us for years:

For example, spare parts are guaranteed to be available for ten years, and every appliance is very easy to repair. In addition, all operating instructions for customers and customer services are available free of charge on our Liebherr website.

The regulations at a glance

The spare parts must

- be kept in stock for seven years (door seals for ten years)
- be able to be replaced with commercially available tools
- be accessible to all service providers (service documents must also be provided)
- be accessible to end users
- be delivered within 15 working days
- be available online For some countries there is already an online shop for end customers and the platform Liparts 2.0 for technicians.

In addition, operating instructions must be easily accessible.

Avoiding food waste

Storing groceries under optimal climatic conditions is an important contribution to preventing food waste.

Durability is a question of technology.

- Our appliances ensure optimal storage conditions through integrated freshness technologies. DuoCooling is our basic technology in all fridge-freezers. It generally protects groceries from drying out.
- BioFresh further extends the storage time of groceries: At temperatures just above 0°C and optimum humidity, groceries in BioFresh safes stay fresh longer.
- Additional special compartments are even more individually adapted to the requirements of specific groceries: The Fish & Seafood Safe, for example, doubles the storage time of fish and seafood again when compared to the BioFresh Safe.

This extended storage time helps to avoid groceries being thrown away.

Storing groceries correctly

With our “compartment labelling”, we help our customers store their groceries optimally in the refrigerator.

As part of the Ecodesign Directive, the different climate zones are marked with pictograms in the appliance.

This makes it easy to see at a glance which food is best stored in which zone of the refrigerator. Further infographics and information on the storage zones are available in our [Online magazine FreshMag](#).



Using BioFresh technology, food retains its vitamins and minerals for significantly longer

The new noise classes

Along with the new energy efficiency classes, noise classes are introduced for refrigeration appliances.

In addition to the dB(A) noise value already shown, the new energy label also indicates the noise class: A, B, C or D. Similar to the efficiency classes, A stands for particularly good – in other words, particularly quiet. D is a great deal less quiet.

*One of our most important target groups:
The generations after us.*

Whereas refrigerators and freezers used to stand and buzz in separate kitchens or pantries, these days the appliances are often no longer behind closed doors. Cooking and living space are increasingly merging. Possible noises are thus perceived in completely new situations: for example, when reading on the couch or working remotely. This is why our appliances are subjected to special tests in modern sound measuring rooms. The result of almost 40 years of acoustic research: Our devices also occupy the top positions in the new noise classes.

Thanks to modern ways of living and using living space, the noise of refrigeration appliances is playing an increasingly important role in the purchasing decision.



In professional sound measurement rooms, engineers use highly sensitive microphones to listen very carefully to sound emissions and further optimise the sound quality of moving components such as doors and pull-outs

Industrial appliances and energy labelling

General conditions for commercial refrigerators and freezer storage cabinets

In many areas of the hotel and catering industry, the storage refrigerators and freezers used have a high energy consumption. More than 20 years after the introduction of the EU energy label for household fridges, the labelling is being extended for the first time to the commercial sector. Customers therefore receive important information about the efficiency and energy consumption of the fridges before they buy them. This turns energy consumption into a fixed quantity that can be calculated. The information on the energy label provides a classification of the appliances with regard to their energy efficiency and the expected power consumption.

The European Commission wants to reduce energy consumption in the European Union and promote the sale of energy-efficient appliances. For this reason, these regulations were adopted on 1 July 2016:

- 2015/1094 – IV “Energy labelling of professional refrigerated/freezer storage cabinets”
- 2015/1995 – IV “Ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers”

According to these regulations, refrigerators and freezers with solid doors, which are designed for the storage of food in a commercial environment, must be marked with an energy label.

Exempted from the labelling obligation are, for example,

- Appliances with static cooling (i.e. without fan)
- Fridge-freezers
- Chest freezers

The energy label is based on the well-known label for domestic appliances in terms of both appearance and content. In addition to information on the manufacturer, product name, energy efficiency class and energy consumption in 365 days, the energy label must also contain information on the net capacity and the climate class. Regardless of the climate class indicated, the energy consumption is measured for all affected appliances in climate class 4 (+30 °C ambient temperature/55 % relative humidity).

The energy efficiency classes have ranged from A to G since 1 July 2016. However, this has confused many retailers and customers. After all, the energy efficiency classes A+++ to D are already known in the household sector. The reason for this is the widely differing test conditions in the commercial sector on the one hand and the household sector on the other. The additional classes A+, A++ and A+++ were introduced on 1 July 2019.

The energy label displays the energy consumption and energy efficiency of a particular product. To determine these classifications for commercial products, the appliances are tested under the conditions of a professional kitchen. Due to the very different test conditions, the energy classes and the kWh/year value are not comparable between commercial and household products.

The energy label for commercial refrigerators and freezer storage cabinets:

1. Model identification of the supplier
2. Name or trademark of the supplier
3. Energy efficiency class
4. Energy consumption in 365 days
5. Usable volume for cooling
6. Usable volume for freezing
7. Climate class (3, 4 or 5)

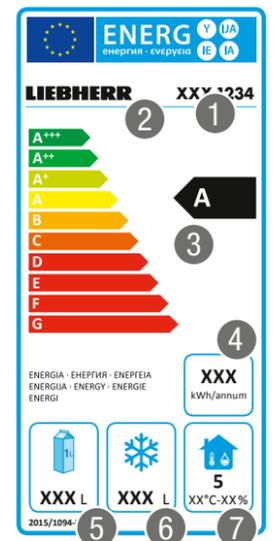
Measurements:

Approved climate classes

Climate class 3 (light-duty cabinet):
Ambient temperatures from +10 °C/+16 °C to +25 °C, 60 % relative humidity

Climate class 4: Ambient temperatures from +10 °C/+16 °C to +30 °C, 55 % relative humidity

Climate class 5 (heavy-duty cabinet):
Ambient temperatures from +10 °C/+16 °C to +40 °C, 40 % relative humidity



The climate class indicated on the energy label represents the maximum ambient temperature at the installation site of the unit. At this temperature the storage temperatures required for the storage of groceries are maintained.

Energy consumption / usable volume

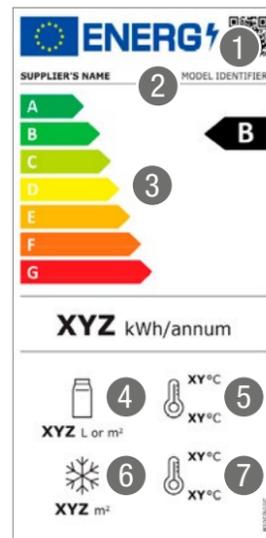
Energy consumption is measured for all appliances concerned, regardless of the climate class indicated, at climate class 4 (+30 °C/55 % rH). The measurement of energy consumption is subject to standard EN 16825 and regulation 2015/1094-IV. The usable volume is determined according to the standard EN 16825.



New additions to the existing regulation are labelling requirements for refrigeration appliances with a direct sales function. From 1 March 2021, for example, upright bottle coolers and ice cream freezers must be labelled in accordance with the new EU regulation.

The new energy label for refrigerators with a direct sales function:

1. QR-Code to identify the product in the EU database EPREL (European Product Database for Energy Labelling).
2. The model identifier for manual identification of the product in the EU database EPREL, using the article number for example.
3. Scale of energy efficiency classes "A" to "G".
4. The total display area in square metres (cooling).
5. Cooling temperature at the top: The highest compartment temperature in degrees Celsius.
Cooling temperature at the bottom: The lowest compartment temperature in degrees Celsius.
6. The total display area in square metres (freezing).
7. Freezing temperature at the top: The highest compartment temperature in degrees Celsius.
Freezing temperature at the bottom: The lowest compartment temperature in degrees Celsius.



As part of our internationalisation strategy, we will also comply with international labelling requirements. Our products are, for example, labelled with the Energy Star, a US environmental label for energy-efficient appliances. The Energy Star certifies that, for example, electrical equipment meets the energy efficiency criteria of the EPA and the US Department of Energy. In 2003, the Energy Star was officially recognised in Europe by an EU regulation.



Important criteria for the Energy Star are, for example:

- An appliance or component that is switched on switches down after a certain time.
- The appliance meets the criteria for the maximum permissible energy consumption over a specific period of time.

We also fulfil the labelling obligation according to the law "California Proposition 65": This law requires that every product sold in California must carry a warning label if it contains any of more than 900 chemicals that California regulators deem potentially harmful. We do this even though there is no indication that our products are harmful to health as long as they are used as intended.

Customer centricity

[416-1] We regularly conduct multidisciplinary surveys and evaluations of our customers' needs. This enables our developers to take them into account when developing new products. This is done through surveys and usability tests with representative end customer groups. During 2018 and 2019, more than 8,000 end customers and business partners worldwide were surveyed quantitatively and qualitatively.

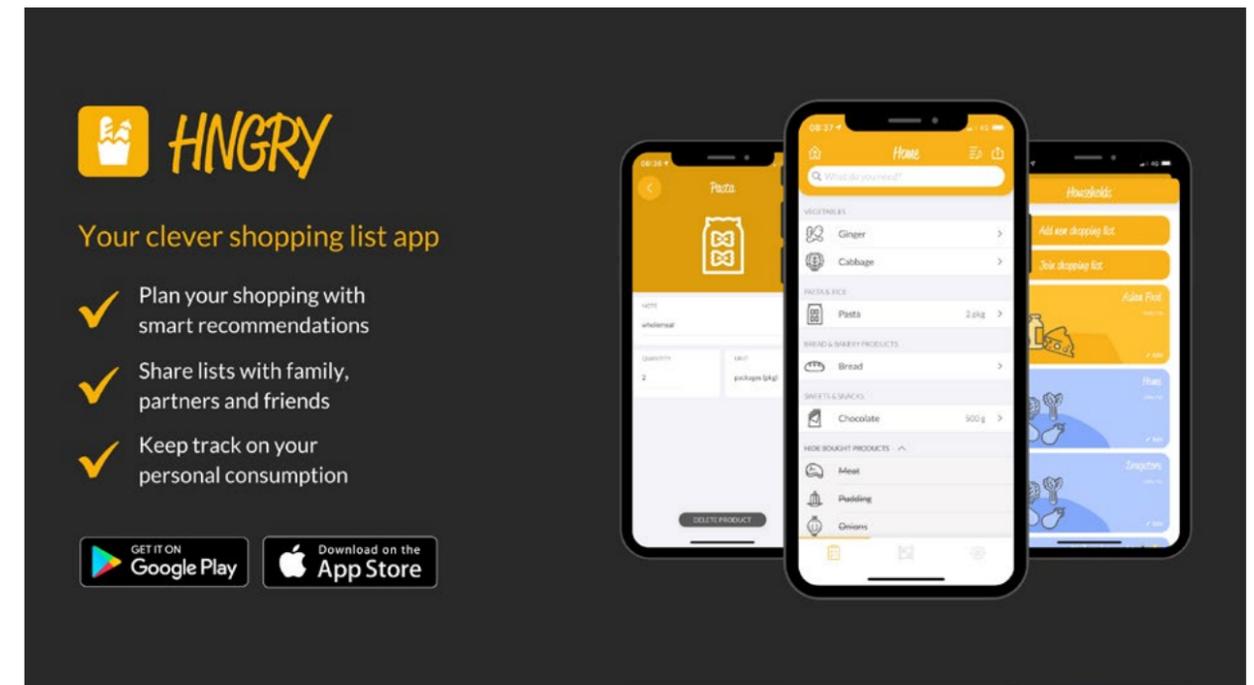
We integrate our customers and the environment into product development at an early stage.

At the same time, the feedback we receive through our telephone service and our sales partners is also incorporated into the development processes. Measuring customer satisfaction after repairs also provides us with valuable information for the improvement process. We have been working closely with our major customers for many years on the further development of our commercial appliances.

In the development of our new HNGRY app, we have also taken the requirements and functional wishes of our customers into account in accordance with our consistent customer centricity. The smartphone app launched in Germany and Austria in December 2019. It facilitates daily shopping planning and reminds users of their shopping list. In this way, HNGRY helps to avoid duplicate purchases and reduce food waste.

With HNGRY, we want to appeal primarily to younger people with an affinity for food, sustainability or digital assistants. The app currently provides users with shopping lists, statistics and shopping suggestions. They can individualise this content and share it with their family, friends or acquaintances. Liebherr also uses the HNGRY app to provide a great deal of useful knowledge about storing food in the refrigerator and freezer. The app thus opens up the world of optimum food storage to its users.

Curious?
You can download the HNGRY App here.
<https://onelink.to/iamhngry/>



The HNGRY App is currently available in Germany, Austria, Switzerland, Luxembourg, Bulgaria and the UK (status 2020).

Optimisation of the use of materials

[301-1, 301-3] Various materials in different quantities are used in the individual appliance series. Metals, such as steel, and plastics, such as polystyrene, make up the largest part of the weight.

We use plastics of the purest possible type, as far as processing technology allows. Plastic parts weighing at least 50 g and natural and synthetic rubber parts of 25 g or more are also marked according to international standards in order to ease subsequent recycling processes. The metals we use are almost completely recyclable. We also pay attention to the recyclability of packaging materials. We only use styrofoam, PE film, plastic moulded parts, cardboard and wood. In the production of printed materials, such as brochures, flyers, price lists or magazines, we mainly use paper from sustainable forestry.

Our material philosophy on high resource efficiency is: As few resources as necessary – as much recycling as possible.

To further increase our resource efficiency, we are participating in the “Circular by Design” project, which started in July 2019. The aim of the three-year research project is to promote a resource-efficient circular economy. The joint project is part of an effort to support research and development projects on the topic of “Resource-efficient circular economy – innovative product cycles”. Here it is part of the framework programme “Research for Sustainable Development – FONAS3”.

These are our research partners:

- Helmholtz Centre Dresden-Rossendorf e. V., Helmholtz Institute Freiberg for Resource Technology
- Wuppertal Institute for Climate, Environment and Energy GmbH, Research Group on Sustainable Production and Consumption
- Folkwang University of the Arts, Chair of Sustainability in Design

Our cooperation partners are Becker Elektrorecycling Chemnitz GmbH and Entsorgungsdienste Mittelsachsen GmbH.

A further goal of “Circular by Design” is the development of a recyclable product design for refrigerators and freezers. This product design should not only be optimised for energy efficiency but also for resource efficiency. The BMBF-funded project is intended to prove that circular by design is actually feasible. The focus is on repair/reuse and on recycling paths that are as circular as possible.



The combination of the resource efficiency analysis with the technology-oriented and simulation-based “Design for Recycling” model should in future enable product design that is suitable for a completely circular flow. To this end, the project partners are quantifying the current losses during the collection and recycling of a fridge/freezer at various levels. The research project also presents the potential for resource efficiency. On this basis, a product design is to be developed whose material composition allows almost complete recycling and reuse.

Within the framework of our associated partnership in the CbD project, we provide information, technical expertise and the CNPes 4758 fridge-freezer as a basis for the data and for specific tests. In this way, we help make the design and construction process of a fridge/freezer practically relevant – to find out what recycling-optimised fridges/freezers could look like.

The CNPes 4758 fridge-freezer combination provided is a premium NoFrost free-standing appliance from the highly energy-efficient BluPerformance range. Its features include BioCool, DuoCooling and Smart Device.

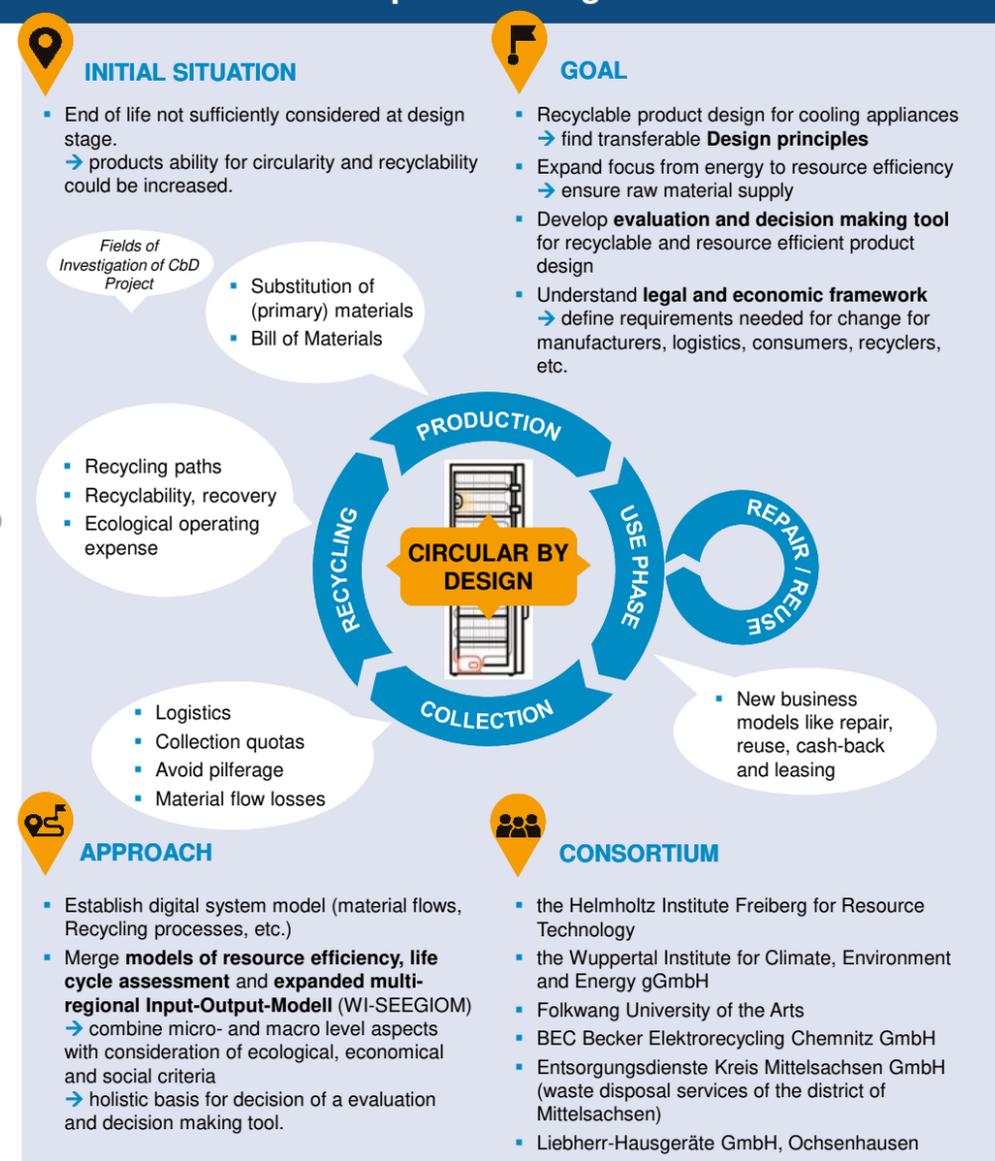
The overall aim of the research project is to look at resource efficiency as well as energy efficiency in a widely used consumer product. Various approaches are being developed in the concept phase. They will be supplemented by an evaluation and decision-making tool. This can then become the standard for other consumer goods.



Grant number: 033R244

Circular by Design (CbD) – Resource efficiency through sustainable design consumer goods, the example of a fridge-freezer

Circular product design and simulation-based evaluation and decision making tool



Overview of the Circular by Design research project

Use of secondary raw materials

[301-2, 308-2] Today, the excess resulting from the processing of plastics is largely collected, processed and returned to the production process. Since there is a functioning material cycle for steel, the use of secondary material here is also possible. Currently, plastic recyclates which have come from old appliances or other waste streams – and bio-based plastics – are not suitable. This is due to their composition and the fluctuating availability and quality of the material. There are numerous restrictions, especially as regards food compliance requirements in the interior of the appliance, which are not easy to fulfil. However, we are monitoring current developments in the market and in the technology closely and remain in close contact with the relevant institutes and suppliers. Through our research and development as well as through tests of our experimental equipment, we aim to achieve a sustainable proportion of recycled or bio-based materials in our series of appliances as soon as possible.

Durability and product safety

[103-1/2/3, 416-1, 416-2] Refrigerators and freezers are in use around the clock: 24 hours a day and 365 days a year, they must reliably provide refrigeration and keep goods fresh and safe. As a manufacturer of premium appliances, we therefore place the highest demands on our appliances and components. Every day, we are working to ensure that our appliances meet the highest standards in household and commercial use.

This also applies, for example, to the industry-specific requirements for refrigerators and freezers in bakeries and pastry shops. Special cataphoretically coated evaporators are used for these appliances. They provide reliable protection against particularly aggressive and corrosive substances – such as salts and fructose.



We offer the optimal solution for every application



Whether under extreme temperatures or high humidity – in the climatic chambers, our appliances prove their versatility in long-term tests which go beyond the usual measuring periods

In the development of the supermarket chests, we decided to go in an entirely new direction: The polyurethane-based, two-component, high-pressure spraying process allows us to manufacture large and geometrically complex components. This helps to make the plastic housings very shock and impact resistant and makes them much more resilient than conventional sheet steel containers.

At the same time, the high product quality and long service life have a huge influence on the environmental performance of the appliances. Regular surveys reveal that our appliances are used in households longer than other brands. Just the fridge door alone is opened several times a day and is subjected to high loads. Therefore, before a component is used in series production, we test the functional parts in extensive service life tests to ensure a 15-year service life – right down to rails and hinges. Liebherr provides a two-year manufacturer's warranty in respect of the operability and operational reliability of our fridges and freezers and guarantees that the appliances are free of material and manufacturing defects. Since 2015, our end customers in Germany, Austria and Bulgaria have been able to extend the manufacturer's warranty by another three or eight years with the new "WarrantyPlus" certificate.

During the development and manufacturing phase, we thoroughly test all appliances for any subsequent health and safety risks to the user. The development departments, product and quality management as well as the purchasing and manufacturing departments are all involved in this cross-departmental process. During production, all devices undergo extensive functional and safety tests. The results are recorded and evaluated. We also carry out product audits and, in the process, randomly test appliances ready for shipping according to specified criteria. We base improvement measures on the process key figures which we evaluate regularly. In this way, we ensure a continuous improvement process.

We test the functional parts to ensure a service life of 15 years.

In the reporting period, there were no breaches of the health and safety regulations by fridges and freezers. In the event of a threat to product safety or customer health, specific processes are established internally. They immediately initiate all necessary measures to protect customers and inform the authorities and the public.

Customer service

We believe that reliable service confirms the purchasing decision of our customers, increases their satisfaction and, consequently, substantially contributes to long-term customer loyalty. After their purchase, our customers can access a worldwide service network with a comprehensive range of repairs and services. Clearly structured guidelines and procedures as well as the fast flow of information help our external service partners to provide customer-oriented services. The targeted and regular training courses for service engineers always include the latest environmental and disposal-related topics.

We also achieve our premium standards for customer service.

Our technicians can call up a central documentation management system around the clock. An international complaints management system promotes quick communication and problem solving. We believe that prompt reactions and a high level of competency in offering initial solutions are the decisive target values for service quality.

To order spare parts, service engineers can access a spare parts ordering system around the clock. In cooperation with globally active logistics companies, we have a fast and environmentally friendly delivery service. We also guarantee spare parts availability for at least 10 years.

For a long time now, we have been meeting the requirements of the new EU Energy Label Regulation, which comes into force on 1 March 2021.

Recycling and disposal of used appliances

[301-2, 301-3] The Waste Electrical and Electronic Equipment Directive (WEEE) legally regulates the collection and recycling of electrical appliances in the EU. Since 2006, it has obliged domestic appliance manufacturers to take back used appliances. In Europe, we cooperate with private waste disposal companies and make use of some public return and recycling systems.

In Germany, the Electrical and Electronic Equipment Act (ElektroG) passed the WEEE Directive into German law. The German “Stiftung Elektro-Altgeräte Register” (EAR) is the executive body. Among other things, it is responsible for registering manufacturers, coordinating the provision of collection containers and the collection of old appliances. In October 2015, the amended ElektroG came into force. New items include, among other things, the industry’s take-back obligation, adjustments for direct recovery by municipalities, an increase in recovery rates and the further containment of illegal electronic waste exports.

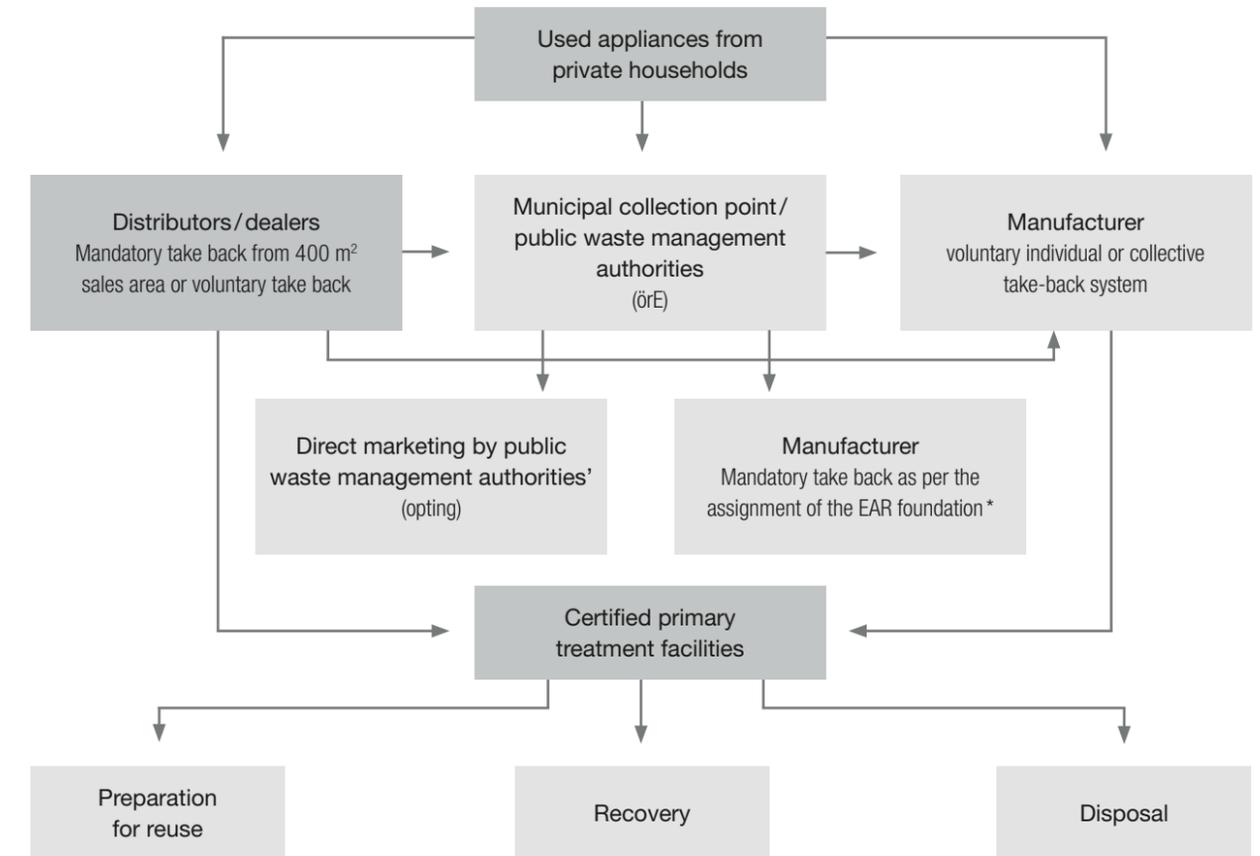
Stationary dealers and online distributors with a sales area or storage and shipping area of 400 m² or more were obliged to take back used appliances.

The German Electrical and Electronic Equipment Act changed over to the Open Scope system on 15 August 2018. All product categories and types of appliances were adapted in the process. At the same time, numerous new product types became subject to registration. As each manufacturer and its registrations are affected, this is the largest change in the field of waste electrical and electronic equipment since ElektroG came into force.



Process sequence

The collection and disposal of used appliances from private households
Framework: ElektroG (2015) in Germany



*The Stiftung Elektro-Altgeräte Register (EAR) is the “common clearing house of manufacturers”, which also fulfils the primary tasks delegated to it by the Federal Environmental Agency.

In 1993, Liebherr was the first manufacturer to launch a range of CFC-free appliances on the market. The refrigerators and freezers produced before that time contained CFCs as cooling and insulating agents in accordance with the standards of the time. In order to avoid harmful effects to the ozone layer, this CFC must be recovered according to disposal regulations for used appliances and disposed of properly.

The German waste disposal companies are not only subject to state permits and controls – they are also inspected by the domestic appliance manufacturers: Since 2007, we have a quality assurance system that checks the entire recycling process at our waste disposal service providers. At the same time, they are obliged to conduct their own internal audits. If the specified quality criteria are not met, the affected plant will no longer be used.

In 2013, the European Committee of Domestic Equipment Manufacturers (CECED, now APPLiA) carried out a cross-national study on the disposal of energy-efficient refrigeration appliances with vacuum insulation panels (VIP). In addition, Liebherr, together with a competitor and an expert institution, carried out a further and more in-depth investigation. The focus was on the extent to which current plant technology is suitable for the future disposal of these appliances. The result: Many plants are already able to dispose of this new type of used appliances. However, individual plants will still have to be technically adapted in the next few years – for example, for exhaust air and filter systems, especially if VIP devices achieve a larger market share.

[Registered collection procedures](#)

Recycling information

[417-1] We are in active exchange with the recycling industry to ensure the best possible processing of used appliances, starting with our own “recycling information”. This was replaced in early 2018 by the i4R database of the domestic appliance umbrella organisation APPLiA.

To improve recycling, we pass on important information to the recyclers via stickers:

- Since the end of 2018, a blue sticker has been used to identify all appliances that contain so-called “vacuum insulation panels” (VIP). VIPs have a significantly better insulating effect than conventional foam. Because they have only recently been used in large quantities by the household appliance industry, recycling companies have yet to adjust to this. The sticker, which has been agreed with the APPLiA umbrella organisation for household appliances, shows the recyclers which type of VIP is installed where in the appliance.



- The second sticker is attached to compressors with highly viscous oils. It is intended to ensure occupational safety in the recycling plants; the oil must not be swallowed accidentally.



As a responsible manufacturer, we support our customers with information on the disposal of their equipment. However, the regional character of the disposal routes does not allow generalised information: In Germany alone, a wide variety of municipal requirements apply. Internationally, regulations are even more complex. We therefore support regional or country-specific information campaigns on the correct disposal of used electrical equipment. In this way, we fulfil our product responsibility as a manufacturer and make a further contribution to protect the environment.

On our homepage under “Service and Environment” you will find information on the correct disposal of refrigerators and freezers in Germany – as well as links to current information campaigns and consumer hotlines.

Since a refrigerator or freezer still contains valuable materials and substances after use, correct disposal is very important. That is because these substances can be recovered and can be reused in the manufacture of new electrical appliances. This is why discarded appliances must be disposed of in accordance with local regulations and laws – also to prevent adverse effects on the environment caused by improper disposal. In this way, the owner of the appliance contributes to the protection of the environment and especially to the conservation of resources.

The symbol of the [crossed-out rubbish bin](#) indicates that the appliance must not be disposed of in the bin for non-recyclable waste. It must therefore be disposed of according to local regulations.



Free offers for correct disposal in Germany

Municipality:

Used appliances can be handed in free of charge at recycling and reusable material centres. Some municipalities also collect electrical appliances. Information on local regulations is available in the municipalities.

Retail:

Retailers are legally obliged to take back used appliances free of charge. Requirements: The shop area is larger than 400 m². For “large appliances” such as refrigerators, this only applies if the customer buys a new appliance at the same time (referred to as 1:1 take-back).

Further information on the disposal of used electrical appliances can be found in “Drop it like E-Schrott”. This joint information campaign by the EAR foundation and German domestic appliance manufacturers is supported by the Federal Environment Agency. In this campaign, a consumer hotline answers questions.

After the appliances are returned, we as manufacturers ensure that they are recycled in an environmentally friendly manner and that any residual materials are disposed of properly. While doing so we comply with both legal and normative requirements. Regular audits of the recycling facilities ensure that these requirements are being met. Infringements are subject to penalties, which may even include a delivery stop. In this way, we as manufacturers assume responsibility for our equipment – throughout its entire life cycle. www.e-schrott-entsorgen.org

The KT 1580-Solar – the story of a pioneering achievement by Liebherr

Many objects have a history. But that of a Liebherr refrigerator from 1994, which stood forgotten in a warehouse for decades, is a very special one: It tells the story of the birth of modern, energy-saving domestic appliances from Liebherr – and how much the company was ahead of its time when it came to sustainability.

An unexpected discovery

In autumn 2019, Hansjörg Steinhorst from the Liebherr archives met Johannes Angele, an engineer and local history researcher, during a tour of the plant in Biberach an der Riss. He told him about a very special collector’s item that was lying unused in his home: a KT 1580 Solar – the first and only Liebherr solar refrigerator. This pioneering appliance had been missing for almost three decades. But what is the story behind this unique photovoltaic refrigerator? The answer to this question leads us back to the 1990s.

Innovation in the age of the hole in the ozone layer

The early 1990s were a time of upheaval for the development team in Ochsenhausen of Wilfried King, Herbert Gerner and Matthias Wiest: In 1989, the United Nations announced a ban on chlorofluorocarbons (CFCs), which was to come into force in 1995. Like everyone else in the industry, Liebherr’s developers worked flat out on refrigerators and freezers without CFC refrigerants. They had their breakthrough in 1993: With the KT 1580 model, Liebherr expanded its product portfolio for the first time to include a CFC and HFC-free refrigerator with the insulation of a freezer. For Liebherr, it was the turning point at which it devoted itself to energy-saving thinking. From 1993 onwards, Liebherr switched to CFC and HFC-free refrigerators, starting with the KT 1580.

Solar power for the energy transition

“For its time, the KT 1580 was a pioneer in terms of energy saving and was awarded the rating ‘very good’ by Stiftung Warentest in 1994”, recalls Herbert Gerner, now Head of Appliance Electronics. But the development team wanted more: After all, the electricity for the refrigerator still came from the power socket, thus promoting the greenhouse effect indirectly. And the developers found a promising solution: Solar energy. They began to upgrade the KT 1580 with solar panels. “The KT 1580 was predestined for conversion to solar. It was our technology project. With it, we wanted to position Liebherr as a driver of innovation”, says Wilfried King. And the conversion was successful. You could even buy the refrigerator as a modular system – i.e. individually or with a solar panel and a cold storage accumulator. This allowed the appliance to cool for a week without solar radiation. The developers looked even further afield: “Our idea

was to bring solar refrigerators to small villages in Africa that were not connected to the power grid, for example, to cool medicines in hospital wards.”

Ahead of its time – but still exemplary

1995 became the year of the KT 1580-Solar: In April, Liebherr dedicated an entire stand at the first climate protection trade fair in Berlin to this solar energy product, which at the time was awarded the new European energy label “A” for “top saver”. In August it was even mentioned in the Frankfurter Allgemeine Zeitung: “At 144 litres, the washing machine-sized cabinet has more useful volume than previous 12-volt appliances, is suitable for tropical conditions and can be used independently of the mains supply”, the newspaper headlined. Despite all the attention, only around 50 units were produced in the end. “That’s how it is with new technologies: Sometimes you are simply ahead of your time”, says Matthias Wiest looking back.

Ultimately the idea behind the KT 1580 prevailed – even without photovoltaics: To this day, the refrigerator is regarded as the prototype of Liebherr’s energy-saving domestic appliances.

More at www.liebherr.com



The developers Herbert Gerner and Wilfried King present their invention from 1994

-32%
less solvent emissions

-30%
reduction in primary water consumption

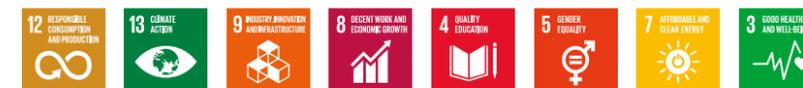
-62%
reduction in the carbon footprint from 2017 to 2019

Avoid unnecessary plastic waste



Locations

In order to be able to produce and work as sustainably as possible, we invest continuously in our existing and new sites.



New domestic appliances plant in India

[102-10, 413-1/2] In May 2018, we opened a new site for Liebherr-Hausgeräte in Aurangabad, India. Here Liebherr Appliances India Private Limited produces high-quality fridges and freezers for the Indian market. The Liebherr Group has invested around 64 million euros (approx. 5 billion Indian rupees) in the ultra-modern and flexible production facility. The property is 200,000 m² in size, while the plant has a covered area of around 36,000 m². The production capacity is 500,000 units per year and can be expanded as required. Around 1,000 people will work at the new site in future. After the plants in Ochsenhausen, Lienz, Radinovo and Kluang, Aurangabad is the fifth production site used by Liebherr to produce fridges and freezers. The new site is also already certified according to the ISO 9001 quality standard.

enables networked working. An environmentally friendly green wall with plants for optimal room climate greets our guests at reception area.



New domestic appliances plant in India

New customer centre in Ochsenhausen

On 6 June 2019, Liebherr-Hausgeräte GmbH opened its new customer centre at the Ochsenhausen site after 23 months of construction. With this investment, we are creating optimal conditions for long-term success – and at the same time moving even closer to our customers. The new customer centre is intended to be a place of communication and encounter: In modern, invitingly open architecture we present 65 years of expertise in refrigeration and freezing. As with our products, we are also oriented towards the needs of our customers. The technologies and functions used here have been thought through down to the last detail and are designed to meet the everyday needs of our customers.

The more than 3,500 m² total area provides space for a variety of uses: On its five floors, the customer centre provides office space for 130 workstations, a 322 m² showroom, and conference, training and event rooms. In future, not only dealers and importers, but also end customers and visitors from all over the world will be able to experience the current range of appliances live. At the same time, the new premises also provide a modern contemporary working environment for employees. State-of-the-art communication technology



New customer centre in Ochsenhausen

New sales and service company for Germany

The new Liebherr Sales and Service Company (LHV), with its head office in Neu-Ulm, commenced operations on 1 January 2019. The new company is a wholly owned subsidiary of Liebherr-Hausgeräte GmbH. The sales activities of the previous six dealerships and of Liebherr-Hausgeräte Ochsenhausen GmbH have been combined and merged into the newly established Liebherr-Hausgeräte Vertriebs- und Service GmbH. LHV will take over the contracts of the dealerships and Liebherr-Hausgeräte Ochsenhausen GmbH. The reorientation sets new impulses for a successful business development of the Liebherr brand in the German market. Our customers will continue to be supported by their usual contacts in the field and internal sales.

With the new LHV, we also want to work more intensively with our specialist trade partners because taking the customer's perspective is an important success factor. We want to work together with united forces in order to be able to meet the expectations of our customers more and more effectively.

A further milestone in our reorientation is the new office building in the Science Park in Ulm. The completion is planned for the second half of 2020. The proximity to universities and colleges offers the best conditions for continuing to attract highly qualified young professionals.



Environmental management

[102-11, 103-1/2/3, 307-1] Environmental management is a central component of our corporate policy. In this way, we aim to reduce the environmental impact of our products and production facilities beyond the legal requirements. Compliance with all binding obligations is a matter of course for us. With our products, we take environmental protection and sustainability considerations into account throughout the entire life cycle: from design, development, production and use to subsequent disposal. We want to continuously reduce the consumption of resources and improve energy-related performance and environmental performance. We also want to reduce the energy required to manufacture our products and the generation of greenhouse gases in the long term. We have set ourselves ambitious goals in this area and have already achieved a lot: For example, in the last two years we have reduced CO₂ emissions at our European production sites by 62%. By 2030 we want to become climate-neutral* here.

Our environmental management at all European sites and at our production site in Kluang (Malaysia) is certified to ISO 14001. In 2019, we celebrated the 10-year anniversary of our environmental management system. To mark this occasion, we planted a tree typical of the region at each of our sites. It symbolises the ecological commitment of our employees. In Ochsenhausen, a walnut tree was chosen. This "Upper Swabian house tree" symbolises the Liebherr family business and at the same time our regional ties. The Radinovo site chose a sycamore maple, Kluang the jackfruit tree and Lienz will plant a silver fir. Liebherr trainees designed and manufactured the beautiful commemorative plaques.

Environmental protection is regulated by each local company's environmental protection laws and product-related environmental protection laws; this is then coordinated by our environmental management system. The defined environmental goals are continuously pursued through the essential actions specified in catalogues of measures. The basis for this is our management handbook and the fundamental environmental regulations of our management system. These are supplemented by specific databases, operating and process instructions. Environmental performance is monitored and controlled by means of the key environmental indicators and checked by means of annual reviews carried out at the sites.

* in Scope 1 and Scope 2.

Our in-house production depth, which is exceptional for the industry, is a great advantage. It enables us to ensure environmental protection in-house for a large part of our value chain and to implement measures quickly and effectively.

Involvement of our employees

[103-1/2/3, 307-1] For successful environmental management we need motivated and committed employees. We want them to contribute their ideas and stand up for more environmental protection with conviction. It is crucial for us to maintain an open dialogue with our employees and to continuously improve our processes. We involve our employees not only through idea management and the continuous improvement process – but also through annual environment-related training. This is usually embedded in the occupational safety instruction. We also keep our employees up to date through regular communication in the departments and through our regular environmental information.

Annual "Active Green Day" in Radinovo

The Liebherr environmental initiative "Active Green Day" takes place annually at our Bulgarian site in Radinovo. The aim of this campaign is to support the city administration of Plovdiv – both in actively protecting the environment and improving the quality of urban life.

Active Green

In April 2018, around 250 volunteers came together for the sixth Active Green Day. They helped to collect rubbish around the plant and in the city. They also repainted 145 benches in parks and planted around 60 trees and 40 shrubs. At the municipal children's playground, the playground equipment was painted and the fences renewed.

In April 2019, around 350 employees and their families took part in the campaign. "In four public parks, we renovated and painted 145 benches and replanted nearly 95 trees and 520 bushes. We also repaired the fences of children's playgrounds over a length of 200 meters," says a member of the initiative. The project members and their families and acquaintances also helped to renew and beautify the park in the neighbouring village of Tsalapitsa.



Employees and their families at the annual "Active Green Day" in Radinovo

Energy consumption

[103-1/2/3, 302-1/4] In 2019, the total energy consumption at the three locations Ochsenhausen, Lienz and Radinovo amounted to 71,469 MWh (in 2018: 74,689 MWh). The main energy sources are electricity and gas from the public grids. The Lienz site has been using green electricity since 2014 and also uses climate-friendly district heating to heat the administration and social buildings. At the Ochsenhausen site, we switched to climate-neutral, green electricity at the beginning of 2018. In addition, the new customer centre, opened in 2019, uses climate-neutral district heating. The ratio between electricity and gas has been almost constant in recent years. This is expected to remain so in the coming years.

Our energy management enables us to reduce energy consumption at our locations and considerably lower CO₂ emissions.

Since 2012, we have reduced energy consumption by 12% – despite the new construction and the associated increase in energy requirements. We have achieved this through numerous measures: for example, by continuously investing in energy-efficient plant technology, using process waste heat for air conditioning in the buildings and switching to LED lighting. We also invest continuously in the energy-efficient renovation of administrative buildings, production halls and warehouses.

In the last two years, our energy strategy priorities have been

- The implementation of the certified energy management according to ISO 50001 at all European sites
- The associated organisational adjustments
- The implementation of a detailed key performance indicator system

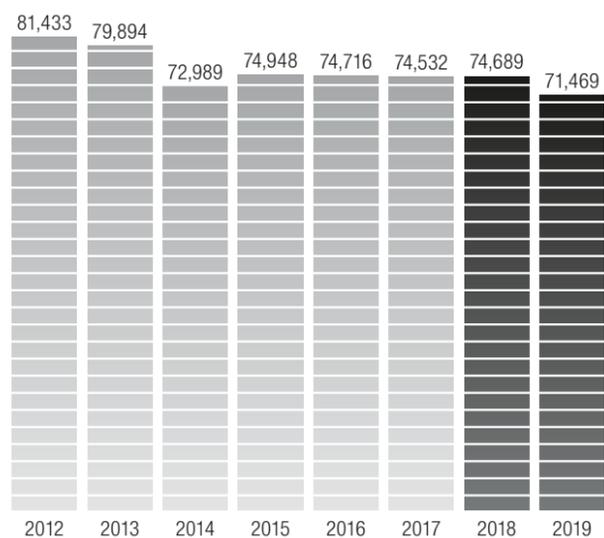
In order to further increase energy efficiency, we have converted the lighting to intelligently controlled LED technology. In addition, we have reduced the consumption of compressed air by means of technical and organisational optimi-

sation. We are also replacing hydraulics with servo-electric drives wherever possible. This elimination of hydraulics reduces the environmental impact and the use of recuperation technology also saves energy.

We are currently developing an energy roadmap and are working on the implementation of a cross-location energy cockpit. In this way, we want to achieve even better control over energy flows and savings potential at the sites. Our goal is to further reduce energy consumption and increase energy efficiency in both private households and industry.

In 2019, the construction of the new customer centre in Ochsenhausen tripled the consumption of district heating. We were able to achieve a net reduction of our consumption with other energy sources.

Development of the total energy consumption at the locations Ochsenhausen, Lienz and Radinovo (in MWh)



Direct and indirect energy consumption of important energy sources in MWh

	2012	2013	2014	2015	2016	2017	2018	2019
Gas	27,775	27,087	22,456	23,382	23,107	23,368	23,406	21,368
Electricity	53,192	52,324	50,075	51,100	51,192	50,821	50,999	49,195
District heating	467	484	458	466	417	343	284	906
Total	81,434	79,895	72,989	74,948	74,716	74,532	74,689	71,469



Thermoforming machine innerliner at the Ochsenhausen site

CO₂ emissions

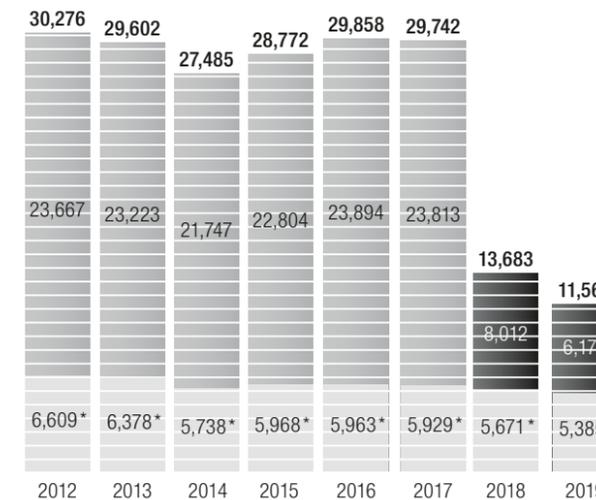
[103-1/2/3, 305-1/2/5, 102-48] In the reporting period, we reduced our CO₂ emissions by 62% compared to 2017. We achieved this primarily by switching to green electricity at our Ochsenhausen production site. In addition, at our Bulgarian production site, we partially draw on energy, which has been produced in a more sustainable way. In the long term, we plan to switch to green electricity at all European production sites. This will enable us to halve CO₂ emissions again in the next years – and thus come steadily closer to our goal of climate neutrality in Scopes 1 and 2 by 2030.

Our direct CO₂ emissions (Scope 1) are caused by gas and fuel consumption at our production sites. The indirect CO₂ emissions (Scope 2) are generated by the consumption of electricity, district heating, business trips and logistics. The CO₂ emissions generated from sending packages and letters from the Lienz location are compensated for by Österreichische Post. In Germany, Deutsche Post has been shipping 125,000 spare parts and accessories parcels annually since 2015, also in 100% climate neutral fashion. In 2018, we were able to offset 61.55 t of CO₂ emissions at our Ochsenhausen site with climate-neutral GoGreen products and services. In 2019, the figure was 54.66 t.

In the last Corporate Responsibility Report, we systematically evaluated our total direct and indirect CO₂ emissions for the first time (Carbon Footprint: Scope 1 and Scope 2). This enabled us to better measure the impact of our business activities on the climate. We have used these insights to find sustainable and long-term methods for reducing our environmental impact.

We have retrospectively adjusted our evaluation for indirect emissions. As a result, the figures differ slightly from the previous year's report.

Carbon footprint (in tonnes of CO₂)



In terms of the Greenhouse Gas Protocol, Scope 1 are direct CO₂ emissions, from fossil fuels for example, and Scope 2 are indirect CO₂ emissions, from the consumption of electricity for example.

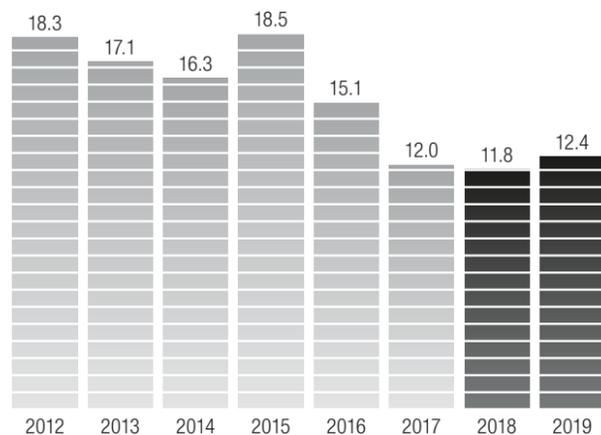
Total
 ■ Scope 2
 ■ Scope 1

*For Scope 1, values deviate from those of previous years, as the survey was adjusted retrospectively for indirect emissions.

Solvent emissions

The doors and side walls of our appliances are for the most part painted with powder lacquers, but also with water-based paints. In 2019, the solvents released by the painting and pretreatment processes amounted to 12.43 t in total at the three locations at Ochsenhausen, Lienz and Radinovo (2018: 11.8 t). This is equivalent to a reduction of almost 32 % since 2012. In 2019, this amounted to a specific solvent emission of 5.98 g per appliance produced (2018: 5.59 g).

Trend in total solvent emissions at the Ochsenhausen, Lienz and Radinovo locations (in t)



Fresh water

[103-1/2/3, 303-1/3/5] We continuously reduce our fresh water consumption through targeted water management. Since the 1990s, we have already achieved many water savings: for example, by changing the machine cooling system in the plastics areas, reducing the water required for paint preparation and with waste-water-free powder coating plants.

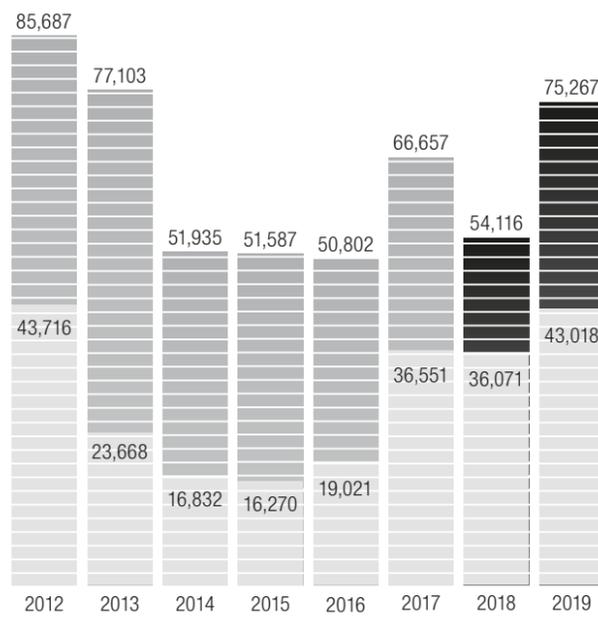
The protection of natural resources at our sites is important to us.

At the sites, the water supply runs mainly through the public networks. At the Bulgarian location in Radinovo, well water is also being used. At the Austrian location in Lienz, water has since 2012 been pumped up from a deep well to cool the plastic machines and then returned to the well.

The withdrawal of water is approved and monitored by the state. None of our sites are located in a water-poor area.

Since 2012, water consumption at the Ochsenhausen, Lienz and Radinovo locations has fallen from 85,687 m³ to a total of 75,267 m³ (2019). In 2018, we were even able to reduce consumption to 54,116 m³. In 2019, consumption at the Radinovo site rose again. This was due to lower rainfall and thus increased irrigation of planted areas. The additional demand was mainly covered by well drilling. In 2019, the specific water consumption was 36.22 litres per appliance produced (in 2018: 25.58 litres).

Trend in total water consumption at the Ochsenhausen, Lienz and Radinovo locations (in m³)



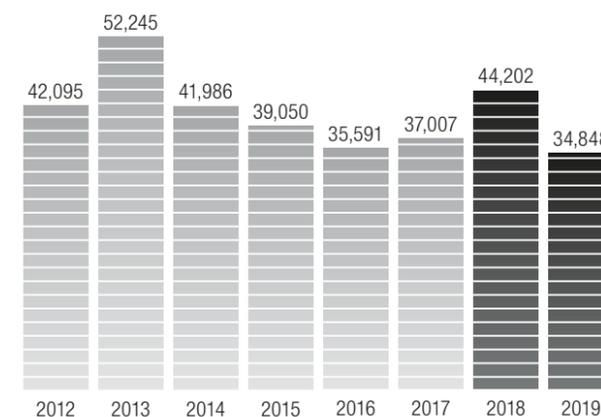
■ Of this, the volume obtained from the well at Radinovo

Effluent

[103-1/2/3, 303-1/2/4] In the production areas, the process water required for cooling the machines and painting is generally conveyed in closed circuits. Aqueous-alkaline degreasing processes are used to pretreat sheet metal parts. The waste water is collected and concentrated, the residues are handed over to certified disposal companies. At the Radinovo location, the waste water is treated before

it is discharged. No process-contaminated effluent is directly introduced into the public sewer system. Regular waste water measurements are carried out at all locations. In 2019, the specific water discharge was 16.77 litres per appliance produced (in 2018: 20.89 litres).

Water discharge at the Ochsenhausen, Lienz and Radinovo locations (in m³)



Soil and biodiversity

[103-1/2/3] The sites at Ochsenhausen, Lienz and Radinovo cover a total area of 772,800 m². The proportion of the area under roof is 43 % in total. The locations are in industrial zones or commercial, mixed-use areas. Insofar as possible, open areas are designed so that they also serve as habitats for indigenous plants and animals. There are currently no significant adverse effects in respect of endangered animal or plant species. We have created an ecological area of 31,000 m² over the past few years to compensate for the construction of the new logistics centre at the Ochsenhausen location in 2009. For example, we have planted 800 m of hedges, sown around 17,000 m² of meadows, preserved 14,000 m² of uncultivated land, reforested 12,000 m² of forest and installed nesting boxes.

Soil and biodiversity measures are locally limited and therefore vary greatly from site to site. At the German production site in Ochsenhausen, we cooperate with the Ochsenhausen Kneipp Association and provide company-owned land for a biodiversity project. This project is intended to create a large, cohesive biotope in order to preserve the wide, biological diversity of species in flower meadows.

Waste

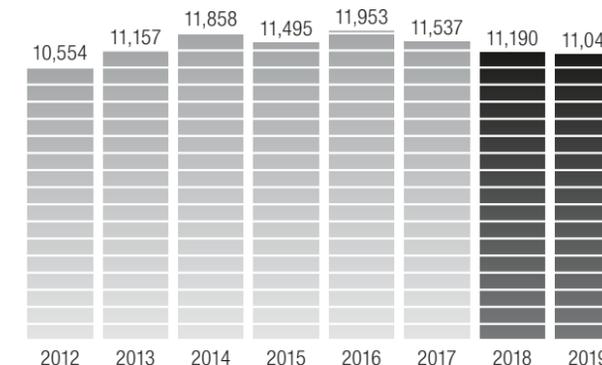
[103-1/2/3, 306-2] We want to achieve consistent waste separation that starts exactly where the respective waste is produced. In 2019, total waste amounted to 11,042 t (in 2018: 11,190 t). The specific amount of waste was 5.31 kg per appliance produced (2018: 5.29 kg). The recovery and processing ratio was almost 80%. The types of waste include metals, plastics, packaging waste, paper, paint waste and reject parts, flat glass, household waste and canteen waste as well as building rubble.

Approximately 90 % of the plastics used consist of the recyclable plastic, polystyrene. As far as technically possible, the waste generated during the processing of plastics is collected, ground and, for the most part, returned into the production process. Non-recyclable plastic waste is sold according to type.

Hazardous waste such as phosphate sludge from paint pre-treatment is disposed of by certified companies.

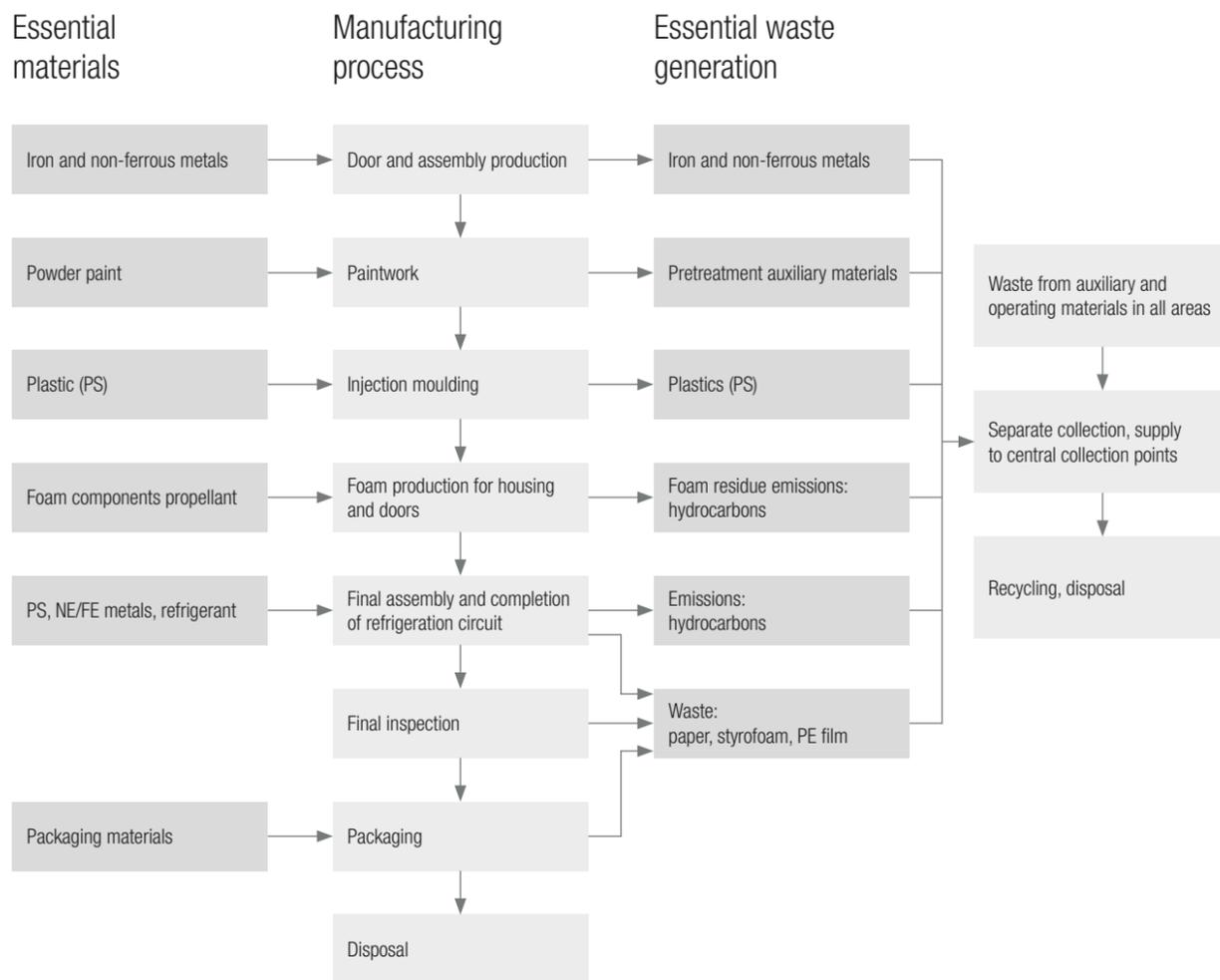
Due to the expansion of the waste balance, the annual waste volume has increased slightly since 2013. In addition, more and more production parts are being delivered that are more heavily packed. Together with some suppliers, we carry out analyses to determine potential reductions. However, reusable packaging is also being used more and more frequently, which we return to the suppliers. At the Bulgarian site in Radinovo, the polystyrene packaging of the delivered compressors is reprocessed externally and is partly reused in the shipment of finished appliances to secure the appliances.

Development of the total waste generated at the Ochsenhausen¹, Lienz and Radinovo locations (in t)



¹ This figure for 2017 does not take into account the 4,266 t excavated during the construction of the new customer centre in Ochsenhausen.

Rough representation of the production processes with the essential material and waste streams



We are not only reducing production waste, but also the amount of plastic waste in the everyday work of our employees: At the Ochsenhausen site, for example, plastic cups have not been used for the hot beverage machines in the break rooms since October 2019. Instead, production staff now use reusable thermo-cups.

In the company canteen in Ochsenhausen, we are also working on avoiding waste and food waste. For example, we are increasingly focusing on alternatives to plastic pack-

aging for food. Our aim is to replace plastic with sustainable materials wherever possible. We also handle food, most of which is purchased locally, in a resource-saving manner. For example, we donate unsold baked goods to the local food bank, the St. Martinsladen.

At our other European sites too, there are numerous different efforts to act locally and avoid waste, especially unnecessary plastic waste.

EcoVadis silver status 2019

The Lienz production site for commercial appliances received the certified EcoVadis silver status in September 2019.

EcoVadis is the world's leading provider of sustainability ratings. The silver status confirms our commitment to the environment, labour and human rights, ethics and sustainable procurement.

Certification by EcoVadis is a further step towards integrating Corporate Responsibility and implementing policies that improve our environmental and social footprint. In the EcoVadis overall assessment of the general machinery manufacturing industry, Liebherr-Hausgeräte is ranked among

the top 13%; in terms of environment, it is ranked among the top 5%, and in the sustainable procurement sector, it is among the top 20%.

EcoVadis provides internationally recognised Corporate Social Responsibility (CSR) self-assessments and represents a solution for monitoring sustainability in global supply chains. The EcoVadis methodology is based on international sustainability standards. The company is monitored by a scientific panel of CSR and supply chain experts to ensure reliable CSR ratings.



Chest production using PUR spray technology at the Lienz site



Consistent permanent staff

High quality training with strong regional commitment



>250 ideas within the framework of idea management

Low employee turnover rate

6.46%



Strong operational health management



Employees

Our employees are the key to our joint success. Our working relationship is based on the principles of decency, mutual respect, fairness and trust.



Common values and guidelines

[102-8/16, 103-1/2/3, 401-1, 405-1, 408-1, 409-1, 412-1/2] Liebherr relies on highly motivated, competent employees who accompany us faithfully on our journey over the years and who are enthusiastically committed to Liebherr. In 2018 alone, out of more than 5,000 employees at the European locations, 496 had anniversaries celebrating 10, 25, 35, 40 or 45 years of service.

This means that our employees take on full responsibility, achieving their tasks within a framework of flat hierarchies and are given a big freedom of action. We attach great importance to entrepreneurial thinking and acting, and we support our employees with targeted training and further education programs. This enables them to develop in a variety of ways – personally and professionally.

We trust in the strengths of our employees and assign responsibility to them.

The Liebherr Group is a wholly-owned family business. This fact shapes our corporate culture and forms the solid foundation for our success. The Liebherr Group's basic values embody the things that will make Liebherr successful today and in the future. Our "Guidelines for Successful Cooperation" describe how we contribute to this success in our collaboration in the Refrigeration and Freezing Division. These guidelines form a basis and provide us with orientation for cooperation and interaction. As part of our personnel development, they are an integral part of our management training and seminars.

Many of our employees spend their entire working lives with the Liebherr Group and identify strongly with the company. They proudly call themselves "Liebherrians". This great loyalty to the company is reflected in a fluctuation rate of 6.46%, which has been low for years (2018: 6.61%). This is not a miracle, but the result of lived values: We offer our employees a secure job and a healthy working environment, even in times of crisis.

Our six Guidelines for Successful Cooperation:

We set goals and achieve them

We give feedback and deal with conflicts

We assign responsibility and accept it

We improve ourselves and thus the company

We use communication as a factor to achieve success

We treat each other with respect and look out for one another

Embracing diversity

[404-1, 405-2, 406-1] In our division, we are firmly convinced that embracing diversity has a positive impact on the entire organisation and society. Close cooperation across national borders enriches our company and promotes the international exchange of knowledge and experience between the European plants. By introducing a new organisation within the framework of an international matrix structure, we are promoting cross-location project work. At the same time, we are strengthening our identity as a single division – and ensuring that the synergy effects will continue to ensure our global success in the future.

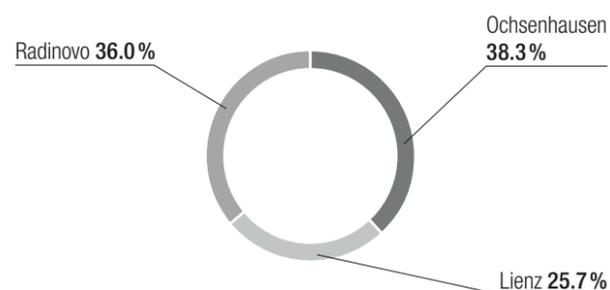
We respect the personality of the individual, are open to different views and allow for differences within the framework of our goals and values.

The diversity of our division is also reflected in the fact that, in 2019, women made up 21.5% of the workforce (in 2018: 21.5%) at the three production sites and the new sales companies.

The proportion of women in managerial positions from the team leader level was 7.7% (in 2018: 7.9%).

Our corporate policy aims to significantly increase the proportion of women in management positions in the coming years. However, we deliberately do not want to define a fixed quota of women, as we want to fill our management positions with the most suitable candidates – regardless of gender and other diversity criteria. In the process, we want to become more diverse.

Permanent staff by location in 2019



The most important HR key figures for the Ochsenhausen, Lienz and Radinovo locations at a glance

	2012	2013	2014	2015	2016	2017	2018	2019
Permanent staff ¹	4,658	4,800	4,833	5,031	5,216	5,184	5,194	5,270
Trainees	98	100	98	94	97	101	101	103
Proportion of female employees	21.6%	21.4%	21.3%	20.8%	20.2%	20.5%	21.5%	21.5%
Proportion of employees in management positions ²	9.6%	9.6%	9.5%	9.9%	8.7%	9.0%	7.8%	8.9%
Of this, proportion of female employees in management positions ²	4.0%	4.5%	3.9%	4.4%	3.8%	3.9%	7.9%	7.7%
Employee turnover rate	2.3%	2.6%	3.0%	3.3%	4.1%	4.5%	6.6%	6.5%
Ø Hours of professional training	11.0	10.7	10.2	13.7	11.4	11.3	9.7	11.6
Reportable work/commuting accidents	104	110	106	73	91	90	104	86

¹ Excluding trainees, ² From the level of team leader

The information contained in this report relates to the divisional controlling company of the Domestic Appliances Division and the European production companies in Ochsenhausen (Germany), Lienz (Austria) and Radinovo (Bulgaria). The 30 employees of this controlling company have been included at the Ochsenhausen site in Germany.

Co-determination and participation

[102-41, 202-1, 402-1, 407-1] Co-determination at the workplace has always been very important to Liebherr. All employees have the right to organise themselves in trade unions. In Ochsenhausen and Lienz, elected works councils represent the interests of the employees. They are represented in Germany by IG Metall and by PRO-GE and GPA-djp in Austria. At our Bulgarian plant in Radinovo, elected employee representatives represent the interests of the employees. They meet with the Management and the Personnel Department every two months to discuss proposals and solve potential conflict points.

Where interests differ, we look for new approaches instead of maintaining our position.

There is close cooperation and a stable relationship of trust between Management, the Human Resources Department and the Works Councils or employee representatives. The Management provides comprehensive and timely information on all important operational changes during regular meetings. Their main topics relate to the fundamental questions of the development of the company, investments, occupational safety and the concerns of the employees. If there are major changes, all employees are comprehensively informed at an early stage.

We tackle conflicts together before they escalate, and we take timely action.

New employees are informed about the possibilities of operational co-determination directly on joining our company.

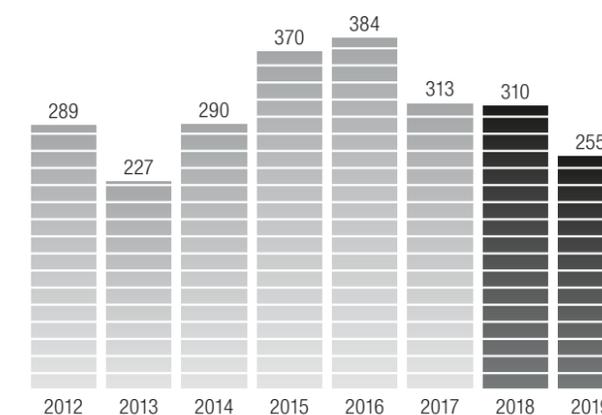
Idea management

Our employees are part of the family business. Based on this premise, the management of the company provides freedom for independent action and communicates trust. Each individual feels responsible for the success of the company and acts on behalf of the entire entity with great commitment and passion. This attitude gives rise to numerous ideas and suggestions for improvement.

At Lienz and Radinovo, a continuous improvement process has been established. Here, employees develop proposals for improvements within their area of responsibility, either individually or in a group. At the Ochsenhausen site, a traditional employee suggestion scheme in the form of idea management has been in place since 1995. The suggestions submitted mainly relate to the production and manufacturing processes. However, sustainability-related issues have also been addressed.

Since 2016, employees have been able to contribute their specific ideas for new products or product features for the development of appliances in the additional "Product ideas" area. This allows us to better utilise our employees' potential for new and unusual ideas. A team of experts, consisting of at least one technical and one market-oriented expert, examines and evaluates the product ideas received. If the evaluation is positive, a committee decides whether the idea has the potential to become a development project. In 2019, 255 product ideas were submitted at all three European sites (in 2018: 155). Here, too, the areas of energy efficiency and sustainability are playing an increasingly important role.

Submitted suggestions within the framework of the traditional idea management at the Ochsenhausen location



Attractive and performance-related pay

[201-3, 401-2] The recognition of individual performance through an attractive remuneration package is based on collective agreements and voluntary company regulations. The amount of the pay depends on the task and the performance as well as on qualifications and experience. When it comes to remuneration, gender and origin play no part in our decision. We absolutely exclude any form of discrimination.

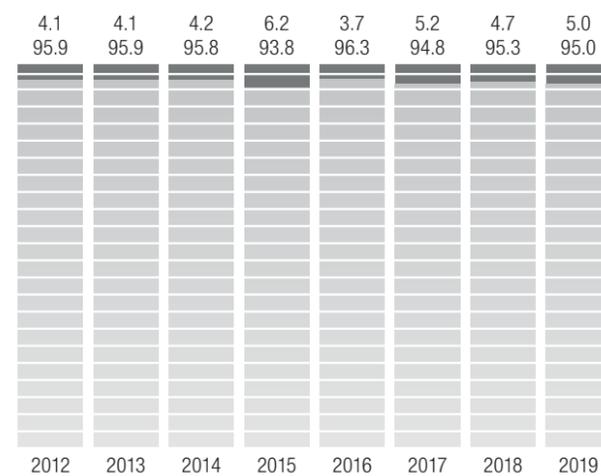
The daily working hours are governed by the applicable statutory, collective bargaining and company provisions. With the exception of the employees in management, the collective agreement of Südwestmetall applies to all employees at the Ochsenhausen location and the Kollektivvertrag der Elektro- und Elektronikindustrie (collective agreement of the electrical and electronics industry) applies to all employees at the Lienz location. The Bulgarian location at Radinovo has a remuneration scheme that is based on the local cost of living but is above the national average.

We offer flexible work time models and fair remuneration.

The monthly remuneration remains stable even with seasonal sales fluctuations. We achieve this through flexible working time models and company and individual time account systems. We only request temporary workers from service providers who pay their employees in accordance with a valid collective agreement.

Since 2011, the Lienz site has complied with the Austrian "Equal Treatment Act for the Review of Pay for Comparable and Equal Activities" by submitting a biennial income report to the Works Council. This report shows the average income of women and men in the respective use groups and use group years.

Full-time and part-time employees (in %)

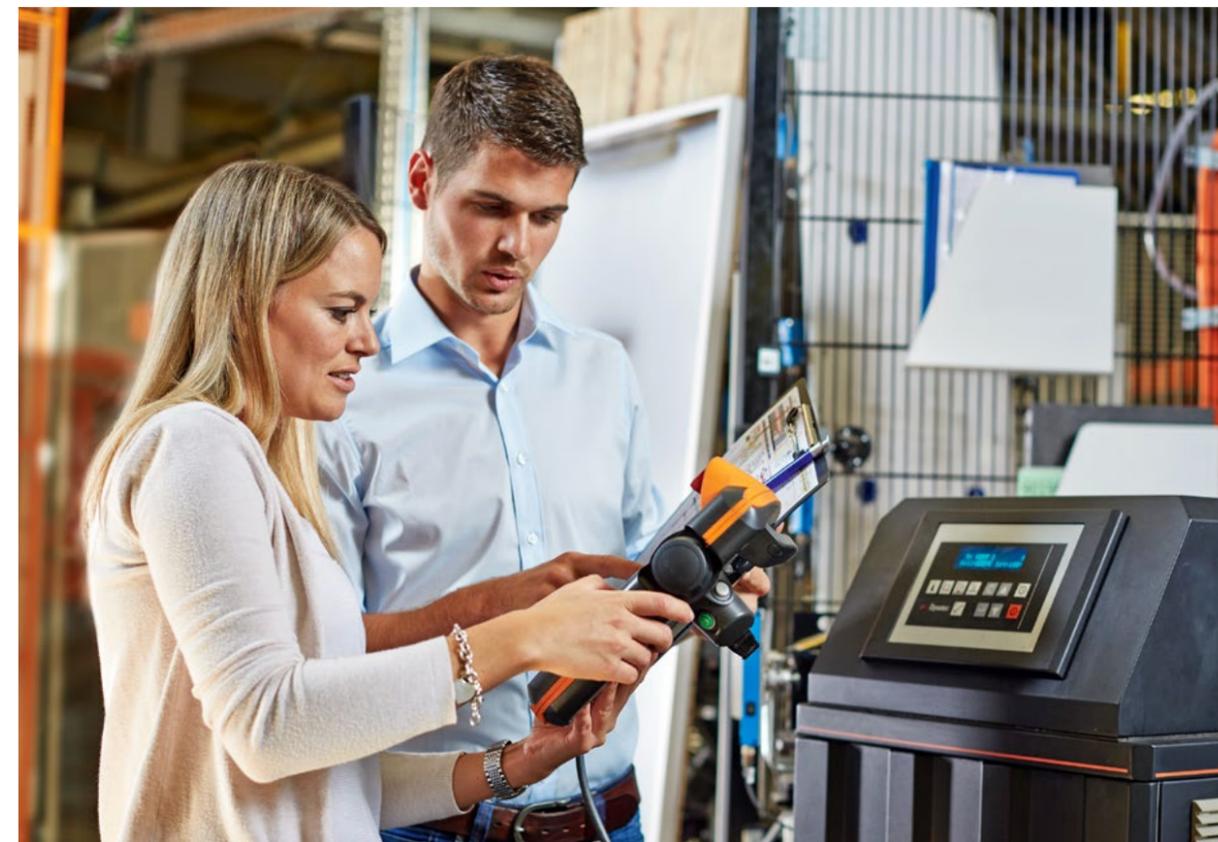


■ Full-time ■ Part-time

In many areas, the social and insurance benefits provided by the company are considerably higher than the statutory and collectively agreed levels. For example, we offer additional travel allowances, bus tickets, food subsidies, staggered anniversary bonuses and loyalty bonuses according to seniority, remuneration for inventions and improvements, additional Christmas bonuses, annual anniversary and retirement and additional paid leave. The company pays each employee's premiums for group accident insurance. In Germany, employees who, through no fault of their own, have fallen on hard times can rely on financial aid from the Hans Liebherr-Hilfe e.V. benevolent fund. In addition, there is an employer-financed company pension scheme, which comes into effect after 10 years of employment. Employees can also provide for their own retirement through deferred compensation.

Our older employees can retire early by means of a partial retirement agreement.

In general, all employees can take advantage of these social benefits, regardless of whether they work full-time or part-time.



The commitment of each individual contributes to the success of the company

Work and family

[401-3] We want to offer our employees a good work-life balance – and at the same time meet production and sales requirements. We have therefore introduced various flexible working time models, full-time and part-time employment models, flexible shift models and part-time work for older employees in various forms. The solutions are tailored to occupational requirements and the personal requirements of the individual. Mobile working enables our employees to better combine the demands of their professional and private lives – for example, when it comes to childcare or caring for close relatives.

With the long-term overtime account, our employees can further improve their personal work-life balance without neglecting operational concerns.

Our effective working time management thus creates an ever better combination of company interests and employee interests – and this leads to greater satisfaction among our employees.

In 2019, a total of 120 employees at our European locations took advantage of the parental leave offer (2018: 104). All employees on parental leave are expressly encouraged to return to their jobs afterwards. Worldwide and across the division, new mothers and fathers who work at Liebherr are given a "baby box" at the birth of their baby containing lovely gifts for the newborn. At the Bulgarian production site, too, employees on maternity leave continue to receive social benefits from their employer – such as summer and Christmas bonuses and meal vouchers.

The company ensures a balance between workload and health of its employees.

In addition, there are special parental parking bays for mothers and single parents. This allows them to go home quickly if necessary.



Training with great commitment

Training and study programmes

[404-2] One of the results of change is the already noticeable shortage of trained specialists. In some areas, we face the challenge of our business developing more dynamically than the number of experienced employees available to us. Consequently, a major focus of our HR strategy is to attract talented and qualified employees and to develop them systematically.

We are countering the shortage of skilled workers with intensive training and further training measures.

Through vocational training and study programmes, we are able to secure a large part of the junior staff we need. In 2019 alone, we trained 103 young people in more than 20 technical and commercial apprenticeships and dual study programmes (in 2018: 101). The proportion of female trainees is currently 25.2% (in 2018: 21.8%). The career portfolio is being continuously expanded in line with demand: most recently with the dual courses of study, “Mechanical Engineering Mechatronics”, “Business Administration – Commerce”, “Refrigeration and Systems Engineering” and “Electrical Engineering”. In our view, vocational training also means strengthening one’s personal skills and abilities

from the outset. In accordance with special training plans, all trainees pass through various specialist departments via the rotation principle. In this way, they expand not only their technical skills but also their personal competencies.

The Radinovo site has had its own state-certified training centre since 2009: Two full-time trainers provide apprentices with theoretical and practical training as mechanical technicians. At the same time, the trainees receive foreign language courses in German and English. In 2019, the existing training program was supplemented with the new “Automation Technology Technician” apprenticeship. Over a training period of 1.5 years, young people are prepared even better for the technical challenges of the future. The existing training workshop was given an additional training room for the new programme.

By providing training in Radinovo, we are also helping to strengthen the entire region, as Liebherr now also trains employees for other companies in the region. The training location is thus becoming a model for in-house vocational training – both for other companies and for the various training authorities in Bulgaria.

Our training philosophy

We want to meet the increasing challenges in the search for qualified employees. In addition, we want to bring applicants and trainees with different previous knowledge and experience to a common level of knowledge. To achieve this, we pursue a very special training philosophy at the Ochsenhausen site:

We supplement the training of our industrial and commercial trainees as well as students with regular seminars according to a social-pedagogical model. We want to support them and their development in the best possible way. Based on this initiative, Liebherr-Hausgeräte GmbH in cooperation with Develop-People established the ZIEL educational system, a holistic concept for responsible, independent and goal-oriented learning. Part of the concept is to take issues of individual empowerment, place them directly into the daily work routine and strengthen them there. Each young person is individually supported and specifically tasked according to their field of activity. By means of individualised learning objectives, learners are able to develop their own level of performance. At the same time, weaker trainees and students receive targeted support and individual assistance. To provide professional support for young people, the trainers are themselves trained to become ZIEL learning coaches. Thus we are able to guarantee optimal pedagogical support for the professional and personal training of young people.

In addition to educational assistance for young people, there are accompanying events and seminars at all training locations. Here, under the guidance of external and internal trainers, young people gain qualifications in the most important (technical) topics.

The high quality of the training is regularly demonstrated by the exceptional final results achieved by trainees and the annual honours awarded by schools and professional associations.

We take our social responsibility seriously.

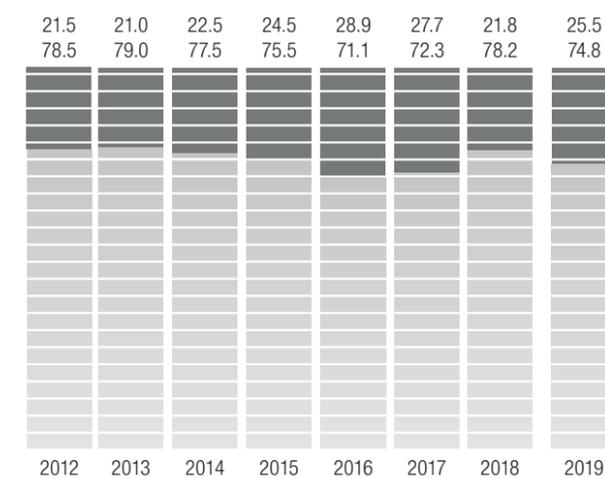
We support young people at an early stage in their career orientation. To this end, we are in regular contact with students at all types of schools, their parents and their teachers. Through joint projects and cooperations, the theory learned at school and the practice learned at the company come together. This enables young people to find their bearings and experience the joy of learning. One example is the educational partnership between the Ochsenhausen site and the Reinstetten community school: Here we jointly organise an “engineering competition” that aims to playfully arouse

young people’s enthusiasm for scientific topics. In addition, science classes from Reinstetten regularly visit our production plant. There they are given tours of the plant with different focuses – for example, on plant safety.

We also offer regular events at all our European sites, such as job application training and job discovery days, and we support local schools through presentations from training ambassadors at parents’ evenings. In internships for schoolchildren and students, young people can experience their chosen profession at first hand.

We participate in the annual Girls’ Day in Germany and Austria in order to increase the number of girls interested in technical occupations.

Women and men in technical and commercial training (in %)



■ Proportion of female trainees
■ Proportion of male trainees

Personnel development

The second pillar of in-company training consists of the DHBW students in Ochsenhausen and the HTL graduates (Higher Technical College) in Lienz. In order to support prospective students in their choice of career, the Ochsenhausen site participates in the SIA (Schüler-Ingenieure-Akademie) project. In cooperation with various grammar schools and Biberach University of Applied Sciences, the young people spend a year implementing a technical project – for example, a solar air collector, the construction of a bridge, the manufacture of a water wheel or a biogas plant. With this project we have succeeded in arousing enthusiasm among the pupils: In recent years, we have successfully recruited students here for our refrigeration and systems engineering as well as our electrical engineering courses.

The “Trainee for HTL graduates” concept was implemented at the Lienz site. Here, graduates of the HTL are employed for one year in various divisions. During this time, they get to know the activities in the different teams and take on their first tasks. At the end, they are transferred to a department with personnel requirements that best suit their interests and talents.

[103-1/2/3, 404-1/2] We want our employees to develop their competencies with a view to current and future challenges. And they should be able to apply them at the right time and in the right place. The Human Resources Departments at our sites ensure this sustainable human resources development. In the process they are guided by the goals of our division. In particular, this means:

- The systematic further education and support of specialists and managers from within the company's own ranks
- The continuous development and expansion of international talent management
- Targeted qualification measures for specific target groups
- Standardisation of company-wide learning

Within the Human Resources Department, we formed the Human Resources Development Unit as a global team with representatives from all European sites at the end of 2019. We have also included the training areas in our holistic approach. All key topics and responsibilities were divided within the global team. The personnel and organisational development work, which spans all locations, forms the basis for future-oriented international solutions. This is how we ensure the same quality at all sites.



Full commitment to Liebherr quality



We offer room for our employees to grow

Employee dialogue

[404-3] As part of the new matrix organisation, we have revised the annual employee dialogues and standardised them globally. The aim of the employee dialogue is to ensure identical content and procedures at the European sites with the help of a standardised document. The “toolbox” makes it possible to discuss further individual topics according to the employee's situation and to address current key issues. During the employee dialogue, employees can develop goals together with their managers in a confidential discussion. They can agree on short and long-term measures for further development and give each other feedback. The strategy and guidelines for successful cooperation are firmly anchored in the employee dialogue.

In order to promote specialist, methodological, social and managerial skills, our employees in the year 2019 took part in an average of 11.59 hours of internal further education (in 2018: 9.69 hours). External vocational further education through recognised training courses and study programmes is another important pillar of our activities.

Digital training is becoming increasingly important. Our “Tell” learning management system supplements the existing face-to-face training with a wide range of offerings: for example, courses for office applications, language courses and digital training on topics such as communication and feedback as well as sales training.

Management development program

As part of the locally planned management development program in Radinovo, we conducted a 360-degree feedback for production managers in 2018. More than 120 team leaders, shift supervisors and production foremen received feedback on their leadership skills from their employees, colleagues and superiors. They were also able to give a self-assessment. Based on the results, we developed a management development program. Since then, this program has supported managers through personal coaching sessions with individually tailored content.

In 2018, the management development program was also launched in Ochsenhausen: Here we train managers, for example, on how to deal with change. They also get to know various coaching tools.

Mentoring program

At the end of 2019, the cross-divisional mentoring program took place for the second time: Here we introduce employees with great potential to experienced mentors from other Liebherr divisions. In this way, we want to broaden their focus and promote cross-divisional cooperation. The Lienz site also took part in the mentoring programme for the first time.

“Talent workshop”

From 2016 to 2018, the talent workshop at the Ochsenhausen site entered its second round: In this two-year development programme, we support ten young people with exceptional commitment and potential. The participants develop both their personal and methodical skills. The second talent workshop was also a clear success at the end of the two years: All participants joined in with great enthusiasm and the highest level of commitment. And even during the program, the junior employees took on increased responsibility in their areas.

The ten interdisciplinary building blocks of the “Talent workshop”:

Live teamwork	Typically human	Powerful presentation	Using plain language
Good meetings	Managing changes	Achieving goals	Resolving conflicts
Effective leadership	Intercultural knowledge		

Safety at work

[103-1/2/3, 403-1/2/3/4/5/7/8/9] The Occupational Safety Department is organized in accordance with the ISO 45000 standard. It is controlled by means of the Integrated Management System. This ensures the continuous improvement process and regular analysis of accident trends. All occupational safety and health protection systems are based on each country’s national occupational safety laws.

We provide a safe and healthy working environment for all employees.

The management system for occupational health and safety is continuously monitored and further developed by the Integrated Management System (IMS). This is done through

- Annual audits
- Analyses of incidents and accidents
- Organisational and technical measures to ensure occupational safety and health protection in the workplace

We have set up a central unit within the division to ensure coordination across all sites.

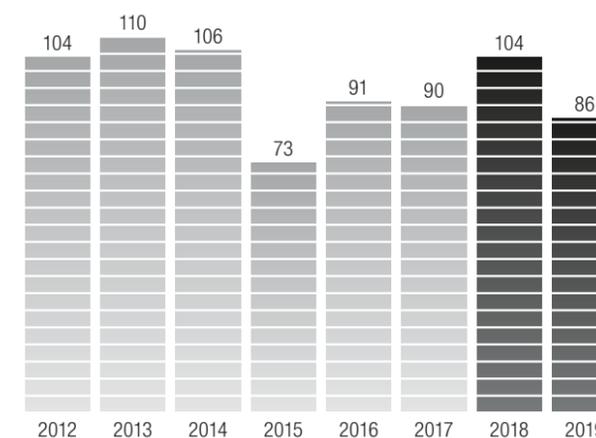
In accordance with national regulations, we regularly carry out risk assessments. We do the same for the assessment of mental stress in the workplace. We record occupational accidents and near-accidents at our sites in systems managed by the Environment, Health & Safety (EHS) department. We evaluate these (near) accidents together with the responsible persons. The measures derived from this assessment are tracked through our catalogues of measures. We also monitor their implementation and effectiveness. Reports to the accident insurance company (employers’ liability insurance association) are also processed using this system and ensured accordingly. In addition, the supervisor reports all accidents in the production area during the morning meeting. All employees receive personal protective equipment in accordance with the risk assessment. For all workstations and activities that are considered relevant according to the risk assessment, the corresponding documents and training certificates are available: for example, operating instructions, brochures and other materials relating to occupational safety and environmental protection.

We carry out regular measurements of the working environment. This applies especially to noise, dust, lighting, chemical hazards and microclimate.

In 2019, a total of 13 occupational safety specialists were employed at our European sites. In addition, more than 50 employees were active as voluntary safety officers alongside their main occupation.

In 2019, 86 reportable occupational accidents occurred at the three European sites (in 2018: 104). To prevent accidents at work, an accident dialogue has been established. This enables better analysis of accident problem areas. And it allows the causes of accidents to be eliminated in a targeted manner. The number of days lost due to occupational accidents in 2019 was reduced to 1,742 calendar days (2018: 2,220).

Total number of reportable occupational and commuting accidents



We use holistic risk assessments to examine individual workstations to determine the risk potential for the employees working there. Using what is referred to as the “risk assessment of experienced stress”, we identify potential psychological stress factors involved in the daily work. The results are directly integrated into the occupational health management system.

Occupational safety and health protection training is defined in a training plan. For general employee instruction, we have introduced an e-learning safety instruction that concludes with a knowledge test. We carry out all occupational safety training and instruction during working hours. The topics for the training courses depend on the requirements of the position and the qualifications.

In accordance with legal regulations, all employees as well as external employees undergo an annual safety training course. At the same time, we train them on the basics of ergonomic work design and environment-related topics. The management system for occupational health and safety covers all employees, external companies and visitors to the European production sites. All employees are insured in the event of an occupational accident.



Training to be prepared for an emergency: our plant fire brigade in Lienz

Emergency management and emergency prevention

At the Lienz site, we have set up the “Hazard prevention” staff unit. This is intended to standardise procedures at the sites. The staff unit primarily coordinates the following areas:

- Fire protection management
- General emergency management
- Emergency planning
- Plant safety
- First aid

The locations in Ochsenhausen and Lienz have officially recognised plant or company fire brigades. The Radinovo location has a fire-fighting team with 42 fire-trained employees and three water tender vehicles. All three units work closely together with the official fire-fighting associations of the countries. Every year, a fixed percentage of employees is trained in the operation of fire extinguishers.

At the locations, company doctors and paramedics ensure that the employees receive the appropriate medical care. They advise on all aspects of occupational health and safety as well as on the prevention of work-related illnesses. They also provide primary medical care in the case of accidents and acute illnesses. In addition, more than 500 trained first aiders assist in the initial care of injured employees.

The individual safety measures at the individual sites in detail:

- At the Radinovo site there is a first aid group with 42 members (as at 2019). Every year, two-day courses are held for the company fire brigade volunteers, led by representatives of the Bulgarian Red Cross. In 2018, an industrial fire brigade competition between different plants in the Plovdiv region took place in the city of Plovdiv. Our Bulgarian colleagues took part with two teams, which took 1st and 4th place in the final ranking.

Regular meetings are also held in Radinovo with the participation of Management, Production Management, employee representatives and HR representatives. At these meetings, the participants discuss topics related to occupational safety.

- The Lienz site has its own ambulance train, which is integrated into the Red Cross rescue system as a first responder system. It is equipped with the appropriate equipment and trained members. Five defibrillators are also stationed at the site. In addition to the ongoing exercises, the members of the 2018 company fire brigade received dangerous goods training. Colleagues from the other two locations also took part in this. The Lienz City Fire Department was also involved. A joint exercise with the Lienz city fire brigade on the subject of hall ventilation followed in 2019.

- At the Ochsenhausen site, there are two full-time paramedics in addition to first responders. Since September 2019, the hazard assessments have been subject to regular repeat testing. The plant fire brigade comprises more than 40 members. In addition, about 15% of employees are trained in the handling of fire extinguishers.

- The occupational safety committee meets several times a year at the Ochsenhausen and Lienz sites. It consists of representatives from Management and the areas of occupational safety, occupational medicine, personnel and the Works Council.

The emergency management system is subject to a continuous process of improvement. This includes making use of internal knowledge and the knowledge acquired during further training courses, as well as experience gained from accidents at the locations, from other companies and insurance companies. Internal audits check annually whether the specifications are being observed. Our management receives the results.

Health services & prevention

[403-6] The consequences of demographic change and the changes in the working world are increasingly influencing the performance of many employees. That is why we develop sustainable solutions to maintain the health of our employees. Through site-related working groups, we continuously develop measures and campaigns for occupational health management. We organise campaigns, health courses and seminars in-house and in cooperation with health insurance companies. We also offer information events – for example, on topics such as prevention, muscles, skeleton, stress, exercise, back health and nutrition. We also promote various sports and leisure activities.

Ochsenhausen site

At the Ochsenhausen location, social counselling is available to assist employees in difficult circumstances. Several trained in-house addiction therapists support affected employees in coping with addiction problems. They accompany the employees before and during therapeutic rehab, and they also assist them afterwards.

In 2019, the focus at the Ochsenhausen site was on healthy nutrition. Employees wanted low-threshold offers and were very interested in screenings, courses and preventive measures in the company. During the winter months, employees can obtain free fruit such as bananas, apples or pears in the company canteen.

A new offer has been available at the German sites since 2019: Employees can obtain advice on how to reconcile family care issues and their jobs. In the event of an emergency, employees can use a hotline to obtain advice and support to help them cope with situations that are often very stressful. For example, they receive support

- In the procurement of care services and facilities
- When applying for financial benefits
- With the establishment of a home care station

In addition, employees can obtain information and further training in courses on topics such as care and dementia.

Other OHM departments are also constantly optimising their measures and processes in order to offer employees an interesting and varied package.

Radinovo site

In order to improve the work-life balance, the Radinovo site runs a programme entitled “Maintaining health and work ability”. It is attended by representatives of the Human Resources Department, the Environment, Health & Safety Department and by employee representatives.

The program answers questions such as the following:

- What basic principles contribute to physical and mental health?
- How can I improve my physical health, nutrition, weight and lifestyle?
- How can I improve my mental and emotional health? How do I deal with tension and stress?
- What positive things can I do in my free time?

The program allows employees to seek advice from a psychologist, see a nutritionist or do sport/exercise. For example, employees and their families can apply for a sport club card at a preferential rate. The card can be used to visit sport and dance clubs and fitness centres. The health promotion package also includes activities such as yoga, folk dancing and Yumeiho – a therapy for strengthening muscles and the spine. The programme includes additional health insurance. In addition to the statutory health insurance, it offers additional prophylaxis, treatment and rehabilitation.

Lienz site

At the Lienz site, too, workplace health promotion has been promoted and practised for many years. Here, too, we offer employees a wide range of opportunities and a system for preventing addiction. The Tiroler Gebietskrankenkasse in Innsbruck has awarded us the “Seal of Quality for Workplace Health Promotion” for our programme.

The people in Europe are continuously getting older and many companies have to adjust to an increase of over 50-year-olds and a decrease of the under 30-year-old employees. In 2019, the average age of the permanent staff in Ochsenhausen was 46 years (in 2018: 46 years), in Radinovo it was 39.8 years (in 2018: 39.8 years).

Age distribution of the permanent staff (in %)

Age	2012	2013	2014	2015	2016	2017	2018	2019
≤ 29	14.7 %	14.9 %	15.1 %	18.9 %	16.5 %	18.2 %	14.8 %	15.5 %
30 – 50	59.3 %	58.3 %	58.1 %	57.0 %	54.6 %	51.2 %	52.4 %	54.1 %
≥ 51	26.0 %	26.8 %	26.8 %	24.1 %	28.9 %	30.6 %	31.8 %	31.4 %

House of work capability

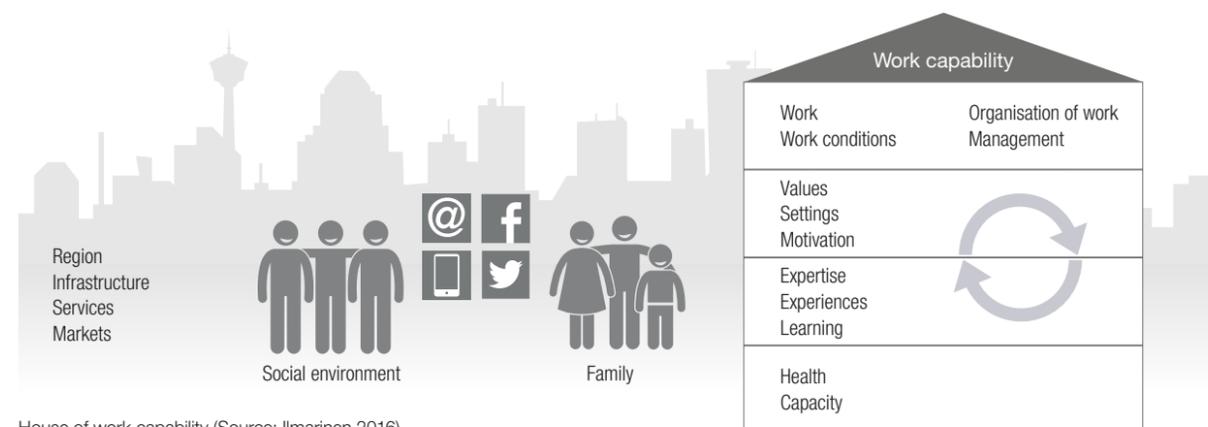
In order to maintain the efficiency of all employees, the challenges will also lie in the creation of age-appropriate workstations.

In 2013, the pilot project “House of work capability” was launched at the Ochsenhausen site. The aim is to maintain and promote employees’ well-being and ability to work until retirement. The additional factors “personal environment” and “family” were included for the first time in the inquiry into the actual situation in the workplace.

Based on the results, an interdisciplinary project team developed various measures to improve the “House of work capability”. The project team includes representatives from Management and Production Management, from the Works Council, from the Human Resources Department and from the Health Management Working Group, and affected employees from the production area.

We have been able to substantially reduce the strain of work within a short time by making relatively simple changes. In order to reconcile the different working methods of older and younger employees, we introduced a technical and monetary cap on incentive times and adjusted break times. We are paying increased attention to ergonomic aspects in the further development and design of workstations. In the reporting period 2018/2019, we extended these measures, which had previously been limited to production, to the administrative and commercial areas.

The project team is currently initiating measures based on these findings to further improve working conditions for employees. We have already achieved significant improvements in the foaming station, container preparation and final assembly areas: These include height-adjustable workstations and assembly tables, ergonomic analyses or the reduction of extremely unhealthy performance peaks. The occupational health management at the Lienz location is increasingly based on the “House of work capability”.



House of work capability (Source: Ilmarinen 2016)

530 
suppliers of manufacturing materials

85%
of the purchasing volume in Europe

76.7%
of the highest-volume suppliers have an environmental management system

Efficient use of cargo spaces:
95% of trucks travel with loads of 100%

Multi-modal logistics concepts



Supply chain and logistics

For us, a trusting relationship with our business partners is the foundation for long-term cooperation.



Supplier relationships

[102-9/10/16, 103-1/2/3, 204-1, 308-1/2, 408-1, 409-1, 412-1/2, 413-2, 414-1/2] A core value of our group of companies is: “We are a trustworthy partner: We aim to maintain our consistency and trustworthiness for many years to come.” This core value essentially shapes the relationship with our suppliers and is the starting point for long-term cooperation.

The Liebherr Group’s Code of Conduct and Compliance Guidelines set the standards for integrity and correct business conduct. They also form the framework for cooperation with our suppliers and business partners.

The environmental and food-related requirements for components and raw materials are defined by the applicable laws and internal guidelines – for example, by the procedural instruction “Environmentally compatible procurement”. The contracts with our suppliers also take environmental aspects into account: for example, substance bans, food contact and drinking water conformity, the topics of REACH and RoHS conformity, and regulations on wood and packaging.

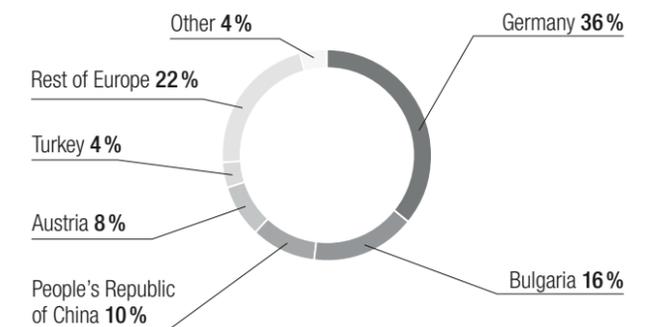
We pay attention to compliance with social standards when choosing our suppliers as well: We do not tolerate child or forced labour, we respect human rights, and we reject any form of discrimination.

A Code of Conduct and Compliance Guidelines form the basis for trusting cooperation with our business partners.

All suppliers confirm in writing that they comply with the applicable laws, guidelines and regulations. They must also provide the necessary evidence.

In the area of production materials, we worked with a total of 530 suppliers in 2019 (in 2018: 550). The supplier portfolio comprises both global corporations as well as medium-sized and small companies. We also include social workshops: At the Ochsenhausen site, for example, the St. Elisabeth Foundation (Heggbacher Werkstattverbund) supports us in the production of small assemblies and in the disposal of waste paper – and has been doing so for more than 20 years.

Proportion of the purchasing volume of manufacturing material in the main countries or regions in 2019



Proportion of the 75% highest-volume suppliers with an environmental management system

2013	2014	2015	2016	2017	2018	2019
64.0	66.7	70.1	73.8	84.8	79.8	76.7

Compliance with environmental and social standards

[102-9/16, 103-1/2/3, 204-1, 308-1/2, 408-1, 409-1, 412-1/2, 413-2, 414-1/2] Our purchasing departments at the sites only select suppliers that meet the generally accepted environmental and social standards. New suppliers must provide a supplier self-assessment prior to being considered. Information on company data, product range, manufacturing technology, employees and certifications provides the basis for the further selection process. All information is documented centrally. This enables our purchasing departments to use it for operational decisions and preventive measures.

Our goal was that more than 70% of our 75% suppliers with the highest turnover should have an environmental management system by 2020. We achieved this goal in 2015 with 70.1% – and exceeded it in 2019 with 76.7%. However, there was a slight decline compared to previous years.

We are aware that it is difficult to check the entire supply chain for compliance with all environmental and social standards. This is particularly true for conflict minerals and for compliance with human rights due diligence obligations. Therefore we have tasked ourselves to find more effective ways to check our suppliers even more rigorously. Any toleration of such practices would be in absolute contradiction to Liebherr's fundamental values.

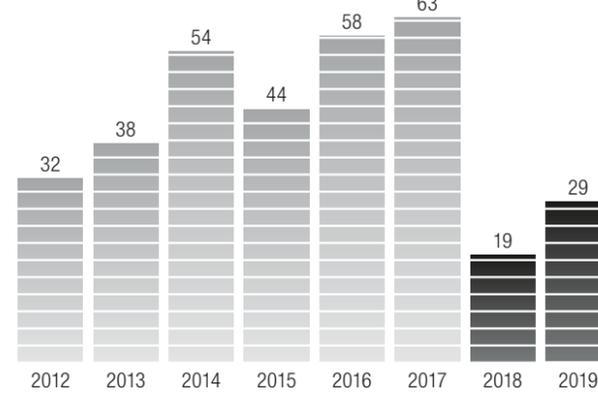
We regularly conduct supplier audits to check whether the supplier is capable of delivering and complies with the quality standards. The scope and number of supplier audits are defined annually by Purchasing and Quality Management, and are fixed in an audit program. In the process, we also take into account the risk potential of the countries concerned. We specify, for example, how intensively and frequently a supplier must be audited during the cooperation.

If there is a concrete suspicion that our quality standards are being violated, an escalation process begins, which can lead to the de-listing of the relevant supplier. Gross violations lead to immediate termination – for example, in the case of child or forced labour. In other cases, we check whether the supplier concerned is still acceptable to the company and can continue as a supplier. This depends on an assessment of the supplier's capacity to develop. The affected supplier must be willing to solve the problems actively and transparently. To this end, they draw up an action plan together with our specialist departments.

In this reporting period, we did not have to de-list any supplier due to violations of integrity or the law.

The increasing globalisation of procurement markets poses new challenges for our supplier management. In order to secure the supply of materials, we will continue internationalising our procurement activities as part of our purchasing strategy and will further intensify dual sourcing.

Number of supplier audits carried out (quality and environment)



Logistics

We value energy efficiency, not only in our products but also in their transportation.

[413-2] The geographically central location of our manufacturing facilities allows us to optimally and efficiently coordinate the distribution routes to our important sales regions in Western and Eastern Europe. All transportation by road is made via suppliers and freight forwarders. In Germany, direct deliveries to our trading partners are handled by contracted freight companies; in Europe and overseas, they are handled by our sales companies or importers.

Short distances and full loads reduce emissions.

The Global Supply Chain Distribution Logistics Unit coordinates all distribution logistics centrally. On average, 9,500 appliances from all locations are shipped daily to around 90 countries. We are continuously striving to improve the efficiency of the entire transportation process for completed appliances.

The most important measures are:

- Central warehouse concepts as well as five regional and geographically conveniently located regional warehouses in Germany, Austria, Russia and the UK. In this way, we aim to serve our core markets quickly and effectively.
- Efficient use of the cargo space by precisely planned shipments with optimally loaded vehicles. Today around 95% of the trucks are 100% loaded to avoid unnecessary emissions.
- Constant optimisation of the transport system and avoidance of empty runs. The flow of material between the plants is conducted via fixed factory traffic. For example, a truck from Bulgaria supplies completed appliances for the German market and is loaded with reusable packaging and pallets from the production areas for the return journey.
- Multi-modal logistics concepts, which optimally combine the various modes of transport: road, rail and water. Wherever possible, we use rail as a means of transport. However, there has been a significant decline here in recent years due to changing customer preferences. The Lienz site has a direct rail connection, and the Ochsenhausen and Radinovo sites have special loading stations for the direct loading of railway wagons. In terms of the tonnage, the total transport volume was 93% by road, 2% by rail and 5% over water.

In recent years, we have invested in efficient logistics centres. For example, the new logistics centre at the Ochsenhausen site has enabled us to save almost 8,000 truck journeys a year between the external warehouses since 2009. This was supplemented in 2016 by the new logistics centre in Radinovo. It is located directly by the motorway that connects the capital Sofia with the coastal city of Burgas on the Black Sea. The logistics centre has 12 truck loading ramps and two railway wagon loading stations with hydraulic loading ramps. The appliances produced are transported via a conveyor tunnel from the production hall to the finished goods warehouse, where they are prepared for further transportation and dispatch. Numerous sustainability aspects

were also taken into account during construction: for example, minimising heat loss. For this, the Radinovo logistics centre received the "Building of the Year" award in the category "Production and Logistics Building" from the Bulgarian Ministry for Regional Development and Public Works in 2016.

In the area of logistics, the future challenges lie, above all, in ever smaller consignment sizes and the associated longer transport intervals. Here we are facing a conflict of objectives: We want to meet customer demands for smaller, faster deliveries – while at the same time reducing emissions and environmental impact.

The same applies to our overseas markets such as Asia: We want to make transports more efficient in future and reduce their environmental impact. A holistic approach to the supply chain is also becoming increasingly important. In addition, the digitalisation, processing and evaluation of logistics-related data is gaining importance. We are therefore planning to establish a supply chain management system and a holistic logistics controlling and key performance indicator system. Our goal is to achieve the defined delivery service level – with optimised costs and high distribution quality. Here, for example, we want to reduce storage and damage in transit.

We also want to further optimise warehousing: We are currently developing strategies for automating warehouse processes or avoiding them altogether. In our warehouses and plants, we now use electrically powered forklifts almost exclusively. This allows us to avoid unnecessary emissions.

We are also continuously optimising the travel of our employees and reducing the number of business trips. In doing so, we rely, above all, on the increased use of video and telephone conferences. Travel between the plants is bundled in the best possible way, and we reduce individual trips through carpools. At our plants, we are promoting e-mobility and are retrofitting charging points for electric vehicles. We support our employees in using local public transport: For example, we work with regional providers to coordinate our shift times with their departure times. In addition, we offer our employees separate parking facilities for carpools as well as covered and monitored parking for bicycles and motorised two-wheelers. In this way, we create low-threshold incentives for more environmentally conscious behaviour.

Heading into a successful future together – with a sense of responsibility, vision and cohesion

The corona pandemic shook the world in 2020, and its effects on states, companies and workers will be felt for a long time to come. Many countries have had to go into lockdown at times, bringing their normal life to a virtual standstill. We at Liebherr-Hausgeräte also had to react and adapt to these developments within a very short time. The pandemic has made us very aware of global integration. It has shown how fragile economic relations are when a completely new situation of global significance arises unexpectedly. But this crisis has also shown us something else: Together, we can overcome even such an extreme situation.

First, as a family business we were able to provide the necessary stability in these stressful times. Second, comparatively good demand has enabled us to switch from short-time work directly to overtime at the Ochsenhausen site (Germany). Thanks to our dedicated sales and service team, we were also able to maintain customer support throughout the entire period.

Reliability towards our trading partners, our great sense of responsibility towards customers and compliance with all agreements – these Liebherr core values have distinguished us even in the crisis. From the very beginning, the specialist departments have been in close contact with suppliers, logistics service providers and factory locations. This enabled us to secure the supply chain and avoid delivery bottlenecks.

Solidarity, courage, confidence and cohesion are virtues that have made our company strong since its foundation. All our employees have made a valuable contribution to helping us take the sometimes difficult path together – thanks to a great willingness to change and the commitment of each individual. It has emerged that we really live according to the motto of “For each other – with each other” and that we all pursue the same goal: to get through these times together in order to look to the future with renewed strength.



Responsibility towards employees

The health of our employees is the top priority, especially during the corona pandemic. We have therefore designed and implemented numerous preventive measures and other work processes specifically for this situation – for example:

- A comprehensive hygiene and distance management system, which is now leading to a new “Hygienic Site” competence field
- The postponement of business visits and business trips
- Regulations on working from home
- The use of mobile forms of work instead of personal appointments

In addition, the company’s health management team provided special offers for the workforce on how each and every individual can deal with the challenging situation in times of corona. Online training units and webinars provided tips and advice on health issues.

Responsibility towards the employees is anchored in all plans for the long term. One thing is clear: Crises always mean change – but they also offer opportunities: We can break away from old ways of doing things, try out new things and thereby grow further and exploit new potential. For example, travel and contact restrictions have accelerated the megatrend of “digitalisation” in the Liebherr-Hausgeräte Division as well. We have introduced new digital communication channels within a very short time – for example, an employee app. With its help, we can quickly inform our employees at all sites about current developments. Naturally we have also edited important information on corona, such as hygiene instructions, tips on mask sewing and working time regulations, and communicated it via the app. The app is thus also symbolic of a new type of communication alongside the usual internal media, in order to reach as many employees as possible immediately.

Respectful corporate culture

During the crisis, it was clearly noticeable that employees were passionately committed to each other – far more than could have been expected. “It was impressive to see how quickly the workforce adapted to the changing conditions and always did more than just fulfil their duties. They have shown what is important: Cohesion, health, safety and the maintenance of business operations – for mutual success. The team spirit and personal commitment demonstrated by everyone provided a positive and shining example for us as company management in this exceptional situation”, says Steffen Nagel, Managing Director Sales & Marketing, describing his experiences of recent months.

The exemplary handling of a reported case of COVID-19 was also remarkable: The employee affected at the Ochsenhausen site provided notification as soon as the suspicion arose. This meant that everything could be initiated immediately within the plant to protect the health of the employee’s colleagues.

As a sign of recognition and as a thank-you, management provided the workforce at all sites with four cotton protective masks for their families free of charge.

Facts and figures

Performance indicators

Domestic Appliances Division								
	2012	2013	2014	2015	2016	2017	2018	2019
Sales performance in millions of €								
Total	889.9	909.4	915.0	920.0	898.0	930.0	945.0	983.0
Worldwide sales performance in millions of units								
Total	2.19	2.20	2.19	2.21	2.20	2.24	2.26	2.24
Investments in millions of €								
Total	51.7	37.2	58.0	67.0	63.0	66.0	43.0	51.0
Development of the entire workforce worldwide								
Total	5,180	5,229	5,476	5,786	6,035	6,072	6,208	6,190

Products

Percentage of the appliances according to the EU Energy Consumption Labelling Act (measured by number of units)

	2012	2013	2014	2015	2016	2017	2018	2019
A+++ and own labelling A+++ -20%	10	14	15	18	20	23	25	27
A++	34	49	54	60	62	61	61	61
A+	53	35	28	19	15	13	11	10
A and below (B, C, D)	3	2	3	3	3	3	3	3

Locations

Development of the total energy consumption at the Ochsenhausen, Lienz and Radinovo sites in MWh

	2012	2013	2014	2015	2016	2017	2018	2019
Total	81,433	79,894	72,989	74,948	74,716	74,532	74,689	71,469

Direct and indirect energy consumption of important energy sources in MWh

Gas	27,775	27,087	22,456	23,382	23,107	23,368	23,406	21,368
Electricity	53,192	52,324	50,075	51,100	51,192	50,821	50,999	49,195
District heating	467	484	458	466	417	343	284	906
Total	81,434	79,895	72,989	74,948	74,716	74,532	74,689	71,469

Carbon footprint in tonnes of CO₂

Total	31,671	31,187	28,682	30,014	30,996	30,793	13,683	11,560
Scope 1 *	6,609	6,378	5,738	5,968	5,963	5,929	5,671	5,385
Scope 2	23,667	23,223	21,747	22,804	23,894	23,813	8,012	6,176

Trend in total solvent emissions at the Ochsenhausen, Lienz and Radinovo sites (in t)

Total	18.3	17.1	16.7	18.4	15.1	12.0	11.8	12.4
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Development of total water consumption at the Ochsenhausen, Lienz¹ and Radinovo sites in m³

Total	85,687	77,103	51,935	51,587	50,802	66,657	54,116	75,267
Of this, the volume obtained from the well at the Radinovo site	43,716	23,668	16,832	16,270	19,021	36,551	36,071	43,018

Waste water volume discharged at the Ochsenhausen, Lienz and Radinovo sites in m³

Total	42,095	52,245	41,986	39,050	35,591	37,007	44,202	34,848
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Development of total waste generated at the Ochsenhausen, Lienz and Radinovo sites in t

Total	10,554	11,157	11,858	11,495	11,953	11,537	11,190	11,042
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* For Scope 1, values deviate from those of previous years, as the survey was adjusted retrospectively for indirect emissions.

Employees

The most important HR key figures for the Ochsenhausen, Lienz und Radinovo sites

	2012	2013	2014	2015	2016	2017	2018	2019
Permanent staff	4,658	4,800	4,833	5,031	5,216	5,184	5,194	5,270
Trainees	98	100	98	94	97	101	101	103
Proportion of female employees	21.6 %	21.4 %	21.3 %	20.8 %	20.2 %	20.5 %	21.5 %	21.5 %
Proportion of employees in management positions	9.6 %	9.6 %	9.5 %	9.9 %	8.7 %	9.0 %	7.8 %	8.9 %
Of this, proportion of female employees in management positions	4.0 %	4.5 %	3.9 %	4.4 %	3.8 %	3.9 %	7.9 %	7.7 %
Employee turnover rate	2.3 %	2.6 %	3.0 %	3.3 %	4.1 %	4.5 %	6.6 %	6.5 %
Ø Hours of professional training	11.0	10.7	10.2	13.7	11.4	11.3	9.7	11.6
Reportable work/commuting accidents	104	110	106	73	91	90	104	86
Submitted suggestions for idea management at the Ochsenhausen location								
Total	289	227	290	370	384	313	310	255
Full-time and part-time employees in %								
Part-time	4.1	4.1	4.2	6.2	3.7	5.2	4.7	5.0
Full-time	95.9	95.9	95.8	93.8	96.3	94.8	95.3	95.0
Women and men in technical and commercial training in %								
Proportion of female trainees	21.5	21.0	22.5	24.5	28.9	27.7	21.8	25.2
Proportion of male trainees	78.5	79.0	77.5	75.5	71.1	72.3	78.2	74.8

Age distribution of the permanent staff in %

	2012	2013	2014	2015	2016	2017	2018	2019
Age								
≤ 29	14.7	14.9	15.1	18.9	16.5	18.2	14.8	15.5
30 – 50	59.3	58.3	58.1	57.0	54.6	51.2	52.4	54.1
≥ 51	26.0	26.8	26.8	24.1	28.9	30.6	31.8	31.4

Supply chain

Proportion of the 75 % highest-volume suppliers with an environmental management system in %

	2012	2013	2014	2015	2016	2017	2018	2019
Total		64.0	66.7	70.1	73.8	84.8	79.8	76.7

Number of supplier audits carried out (quality and environment)

	2012	2013	2014	2015	2016	2017	2018	2019
Total	32	38	54	44	58	63	19	29

Objectives

Our Corporate Responsibility Management will be continuously expanded over the next two years with the following measures.

Corporate Responsibility Management		
Focus	Measure	Period
Stakeholder dialogue	Ongoing intensification of the stakeholder dialogue in line with the new requirements of ISO 9001, ISO 14001 and ISO 50001	Continuous
Corporate Responsibility communication	Integration of the locations Kluang (Malaysia) and Aurangabad (India) in the reporting	2020/2021
	Continuous expansion of external and internal Corporate Responsibility communication (e.g. a separate landing page for Corporate Responsibility)	2020/2021
Awareness of sustainability	Optimisation of the knowledge transfer between sites and departments regarding the division's Corporate Responsibility activities	Continuous
Integrated Management System	Re-certification of the individual management systems	Continuous
	Optimisation of monitoring and reporting	Continuous
Data protection policy	E-learning IT security training for relevant employees	Continuous
	E-learning training in the European General Data Protection Regulation (GDPR) for relevant employees	Continuous
Sustainable Development Goals (SDGs)	Highlighting our contribution to achieving the Sustainable Development Goals (SDGs) of the United Nations	2020/2021
	Definition of further specific measures for maximising the contribution toward achieving the SDGs	2020/2021
External demands	Proactive fulfilment of material requirements of our stakeholders and expected legal requirements	Continuous
Locations		
Focus	Measure	Period
Energy	Continuous reduction of energy consumption at all locations and consideration of sustainability aspects when planning new plants and processes	Continuous
	Intensive use of the deep well for additional building air conditioning at the Lienz location, extension to the IT server rooms	2020/2021
Emissions	Continuous reduction of CO ₂ emissions in the Domestic Appliances Division	Continuous
	Switching to climate-neutral power supply at the Radinovo site	2022
	The long-term goal is climate neutrality for the European sites (in Scope 1 & 2)	2030

Water	Determining further potentials for saving water at the locations, processes and non-production-specific areas	Continuous
Waste	Continuous improvement of local waste management reports	Continuous
	Reducing the proportion of waste disposed of and increasing the proportion of waste recovered	Continuous
Employees		
Focus	Measure	Period
Value-based corporate culture	Intensification of the application "Guidelines for successful cooperation" at all locations	Continuous
Training and further education	Demand-oriented expansion of spots for apprenticeships and dual study programmes at the locations	Continuous
	Promotion of female trainees in technical professions	Continuous
Ensure securing talented staff and qualification	Intensification of employer branding under the motto "One Passion – Many Opportunities" externally and at all locations	Continuous
	Managers are sensitised to the specific effects of demographic change within the framework of strategic personnel planning	Continuous
Diversity	Raising awareness of diversity issues	Continuous
	Expansion of measures to increase diversity	Continuous
Occupational health management	Implementation of specific measures based on the findings of the "House of work capability" project in the commercial/administrative area at the Ochsenhausen site	2020/2021
	Creation of a global health management system with a global coordination function	2020/2021
Safety at work	The annual occupational safety training is updated continuously in its new digital form and performed regularly at all European sites	Continuous
	Continuous reduction of the accident and illness rate	Continuous
Hygienic site	Proactive and timely adaptation of health protection measures in the context of the corona pandemic and beyond	Continuous
	Prompt and direct communication of the measures to the employees	Continuous

Product		
Focus	Measure	Period
Energy efficiency	Continuous reduction of the energy consumption of our fleet in the European market	Continuous
	Introduction of the new EU energy label	2020/2021
	Check closing of material loops and initiate further pilot projects	2020/2021
	Continuation and active support of the Circular by Design research project	2020/2021
	Implementation of the insights gained from Circular by Design	2021
Materials	Existing requirements will continue being taken into account, the products will continue being developed and improved in terms of resource efficiency, durability, ease of repair and recyclability	Continuous
	Search for green alternatives for the materials used	Continuous
	Investigations to increase the proportion of recycled material used within the framework of the strict legal requirements	2020/2021
	Use of climate-friendly refrigerants with the lowest possible global warming potential (GWP)	2020/2021
	Abstain from the use of HFOs as long as their environmental effects are not clarified	2020/2021
Pollutant-free products	Expansion of the verification of the origin of materials to be classified as critical, in particular conflict minerals	2020/2021
	Manufacture products free of critical substances in the future with cyclical adaptation to the state of the art	Continuous
Networking and digitalisation	Expansion of the interconnectivity of fridges and freezers	Continuous
	Expansion of customer centricity for even greater consideration of customer requirements and needs, for example, through the HNGRY app	Continuous
Supply chain and logistics		
Focus	Measure	Period
High environmental and social standards	Recognised environmental and social standards are adhered to in the supply chain (assessment and adjustment of the existing supplier selection and auditing processes)	Continuous
	Continuous optimisation of the procurement and distribution logistics network, with the aim of minimising transports while meeting the flexibility requirements of our customers	Continuous

GRI Index

[102-55/56] The Liebherr-Hausgeräte Corporate Responsibility Report 2019 is based on the standards of the Global Reporting Initiative (GRI). In our opinion, this report is a GRI-referenced report, which fulfills the “Core” option of the GRI Guidelines. In addition to the core requirements, further indicators are included in the report. Information on the fulfilment of the indicators is provided on the report pages linked here, or additional information can be found directly in the index.

GRI 102: General Disclosures

GRI indicators	Comments	Page
Organizational Profile		
102-1	Name of the organisation	15
102-2	Activities, brands, products and services	15
102-3	Location of headquarters	15
102-4	Location of operations	15
102-5	Ownership and legal form	15
102-6	Markets served	16f
102-7	Scale of the organization	16
102-8	Information on employees and other workers	16f, 67ff.
102-9	Supply chain	83ff
102-10	Significant changes to the organization and its supply chain	57f, 83ff
102-11	Precautionary Principle or approach	11, 15, 18ff., 25, 58
102-12	External initiatives	25f
102-13	Membership of associations	25f
Strategy		
102-14	Statement from senior decision-maker	8f, 18
102-15	Key impacts, risks, and opportunities	8f, 18ff., 25ff, 31ff
Ethics and Integrity		
102-16	Values, principles, standards, and norms of behavior	8f, 11f, 18, 20, 25, 67, 83f
102-17	Mechanisms for advice and concerns about ethics	18, 20
Governance		
102-18	Governance structure	8, 11, 15, 18ff
102-19	Delegating authority	8, 18, 20, 25
102-20	Executive-level responsibility for economic, environmental, and social topics	8, 18, 25
102-21	Consulting stakeholders on economic, environmental, and social topics	19, 25
102-22	Composition of the highest governance body and its committees	11f
102-29	Identifying and managing economic, environmental, and social impacts	12

GRI indicators	Comments	Page
Stakeholder Engagement		
102-40	List of stakeholder groups	26
102-41	Collective bargaining agreements	69
102-42	Identifying and selecting stakeholders	25ff
102-43	Approach to stakeholder engagement	25ff
102-44	Key topics and concerns raised	25
Reporting Practice		
102-45	Entities included in the consolidated financial statements	15
102-46	Defining report content and topic Boundaries	25ff
102-47	List of material topics	27
102-48	Restatements of information	Retroactive adjustment of CO ₂ emissions 61
102-49	Changes in reporting	Inclusion of the Sustainable Development Goals of the United Nations 4, 8, 25ff, 31ff
102-50	Reporting period	This sustainability report refers to the financial years 2018 and 2019. The respective financial years cover the period 1 January to 31 December. 4
102-51	Date of most recent report	September 2018
102-52	Reporting cycle	Every two years 4
102-53	Contact point for questions regarding the report	101
102-54	Claims of reporting in accordance with the GRI Standards	This is a GRI-referenced report. 4
102-55	GRI content index	The "Core" report option of the GRI Guidelines was selected for this report. 95
102-56	External assurance	External verification by an independent third-party has not been obtained. 95

GRI 200: Economy

GRI indicators	Comments	Page
GRI 201: Economic Performance		
103-1/2/3	Management approach	18, 15ff
201-1	Direct economic value generated and distributed	16
201-2	Financial implications and other risks and opportunities due to climate change	25ff
201-3	Defined benefit plan obligations and other retirement plans	70
GRI 202: Market Presence		
103-1/2/3	Management approach	18, 67ff
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	As a company bound by collective bargaining agreements, we are bound by the collectively agreed remuneration. 69f
GRI 204: Procurement practices		
103-1/2/3	Management approach	18, 83ff
204-1	Proportion of spending on local suppliers	83ff

GRI indicators	Comments	Page
GRI 205: Anti-corruption		
103-1/2/3	Management approach	18, 20
205-1	Operations assessed for risks related to corruption	20
205-2	Communication and training about anti-corruption policies and procedures	20
205-3	Confirmed incidents of corruption and actions taken	During the reporting period there were no confirmed incidents.
GRI 206: Anti-competitive Behaviour		
103-1/2/3	Management approach	18, 20
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	In the reporting period, there were no proceedings brought against Liebherr-Hausgeräte GmbH on the basis of anti-competitive behaviour, anti-trust or monopoly practices. 20

GRI 300: Ecology

GRI indicators	Comments	Page
GRI 301: Materials		
103-1/2/3	Management approach	18
301-1	Materials used by weight or volume	The current information is too heterogeneous for an exact calculation of all the appliance series produced and it is accordingly based on averaged values. 48
301-2	Recycled input materials used	A quantitative calculation of the total percentage of materials used that are recycled input materials has not yet been carried out. 50, 52ff
301-3	Reclaimed products and their packaging materials	48, 52ff
GRI 302: Energy		
103-1/2/3	Management approach	18, 58, 60
302-1	Energy consumption within the organisation	60
302-4	Reduction of energy consumption	60
302-5	Reductions in energy requirements of products and services	37
GRI 303: Water and Effluents		
103-1/2/3	Management approach	18, 62
303-1	Interactions with water as a shared resource	62
303-2	Management of water discharge-related impacts	The discharged waste water significantly affects the public sewer system. The waste water discharged indirectly into the public sewer system is in compliance with the waste water regulations of the respective municipalities. 62f
303-3	Water withdrawal	62
303-4	Water discharge	62f
303-5	Water consumption	62
GRI 304: Biodiversity		
103-1/2/3	Management approach	Our sites are in industrial zones or commercial mixed-use areas. None of the locations are in protected areas. 18, 63

GRI indicators	Comments	Page
GRI 305: Emissions		
103-1/2/3	Management approach	8f, 18, 61
305-1	Direct (Scope 1) GHG emissions	61
305-2	Energy indirect (Scope 2) GHG emissions	61
305-5	Reduction of GHG emissions	61
GRI 306: Waste		
103-1/2/3	Management approach	18, 63
306-2	Management of significant waste-related impacts	63f
GRI 307: Environmental Compliance		
103-1/2/3	Management approach	18, 58f
307-1	Non-compliance with environmental laws and regulations	During the reporting period there were no incidents. 58f
GRI 308: Supplier Environmental Assessment		
103-1/2/3	Management approach	18, 83f
308-1	New suppliers that were screened using environmental criteria	Within the context of a self-assessment, each new supplier is checked for compliance with environmental and social standards. Suppliers who have significant critical potential for infringements will be audited. 83f
308-2	Negative environmental impacts in the supply chain and actions taken	50, 83f

GRI 400: Social matters

GRI indicators	Comments	Page
GRI 401: Employment		
103-1/2/3	Management approach	18, 67ff
401-1	New employee hires and employee turnover	67f
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	In general, no distinction is made between full-time and part-time employees or temporary employment contracts. 70
401-3	Parental leave	71
GRI 402: Labor/Management Relations		
103-1/2/3	Management approach	18, 67ff
402-1	Minimum notice periods regarding operational changes	The minimum notice periods regarding material operational changes are based on the national legislation of the country in question. 69
GRI 403: Occupational Health and Safety		
103-1/2/3	Management approach	18, 67, 77
403-1	Occupational health and safety management system	77ff
403-2	Hazard identification, risk assessment, and incident investigation	77ff
403-3	Occupational health services	77ff
403-4	Worker participation, consultation, and communication on occupational health and safety	77ff
403-5	Worker training on occupational health and safety	77ff

GRI indicators	Comments	Page
403-6	Promotion of worker health	80f
403-7	Prevention and mitigation of occupational health and impacts directly linked by business relationships	77ff
403-8	Workers covered by an occupational health and safety management system	77ff
403-9	Work-related injuries	77
GRI 404: Training and Education		
103-1/2/3	Management approach	18, 67, 74
404-1	Average hours of training per year per employee	68, 74f
404-2	Programs for upgrading employee skills and transition assistance programs	74ff, 72
404-3	Percentage of employees receiving regular performance and career development reviews	100% in the employee area 75
GRI 405: Diversity and Equal Opportunity		
103-1/2/3	Management approach	18, 67
405-1	Diversity of governance bodies and employees	67f
405-2	Ratio of basic salary and remuneration of women to men	68ff
GRI 406: Non-discrimination		
103-1/2/3	Management approach	18, 67
406-1	Incidents of discrimination and corrective actions taken	No incidents were reported during the reporting period. 20, 68
GRI 407: Freedom of Association and Collective Bargaining		
103-1/2/3	Management approach	18, 67
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	69
GRI 408: Child Labour		
103-1/2/3	Management approach	18, 20, 67, 83f
408-1	Operations and suppliers at significant risk for incidents of child labor	To date, no operating sites or suppliers have been identified where a significant risk of child labour exists. 20, 67, 83f
GRI 409: Forced or Compulsory Labor		
103-1/2/3	Management approach	18, 20, 67, 83f
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	To date, no operating sites or suppliers have been identified where a significant risk of forced or compulsory labour exists. 20, 67, 83f
GRI 412: Human Rights Assessment		
103-1/2/3	Management approach	18, 20, 67, 83f
412-1	Operations that have been subject to human rights reviews or impact assessments	20, 67, 83f
412-2	Employee training on human rights policies or procedures	From the outset, new employees receive training on the Code of Conduct of the Liebherr Group when joining the company. Furthermore, managers and employees receive training on the subject of "Compliance" via an E-learning platform. 20, 67, 83f

GRI indicators	Comments	Page
GRI 413: Local Communities		
413-1	Operations with local community engagement, impact assessments, and development programs	25, 57ff
413-2	Operations with significant actual and potential negative impacts on local communities	57ff, 83f
GRI 414: Supplier Social Assessment		
103-1/2/3	Management approach	18, 83f
414-1	New suppliers that were screened using social criteria	83f
414-2	Negative social impacts in the supply chain and actions taken	83f
GRI 416: Customer Health and Safety		
103-1/2/3	Management approach	18, 50f
416-1	Assessment of the health and safety impacts of product and service categories	As part of the development and manufacturing processes, all Liebherr fridges and freezers are checked for any health and safety risks to the user. 50f, 35, 47
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	In the reporting period, there were no breaches of the health and safety regulations by Liebherr fridges and freezers. 50f
GRI 417: Marketing and Labelling		
103-1/2/3	Management approach	18, 37ff
417-1	Requirements for product and service information and labelling	All Liebherr fridges and freezers for private and commercial use are, insofar as required, marked with the EU energy label. The appliance-specific nameplates comply with the legal requirements. The operating instructions include all the relevant legal information about the appliance and its operation as well as the proper disposal of packaging and used appliances. 37ff, 54
417-2	Incidents of non-compliance concerning product and service information and labeling	In the reporting period, there were no breaches of the labelling requirements by the fridges and freezers manufactured by Liebherr. 37ff
417-3	Incidents of non-compliance concerning marketing communications	During the reporting period there were no incidents. 37ff
GRI 418: Customer Privacy		
103-1/2/3	Management approach	18, 20
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	During the reporting period, there were no substantiated complaints regarding breaches of customer privacy and the loss of customer data. 20
GRI 419: Socioeconomic Compliance		
103-1/2/3	Management approach	18
419-1	Non-compliance with laws and regulations in the social and economic area	During the reporting period there were no incidents. 20

Contacts and other publications

[102-53] We look forward to receiving your questions, suggestions or criticism regarding our Corporate Responsibility Report and our sustainability activities. Further publications and information about our company and our products are also available on the internet at home.liebherr.com.

Imprint

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Immerse yourself in the fresh world of FreshMAG and learn from our experts all about our appliances, food storage, nutrition, recipes and much more.

Your contact for general inquiries

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Phone: +49 (0)7352/911 72 70
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Share your ideas on current trends and topics about food and food storage with us on our social media channels.

Your contact for

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Click here for our social media channels:
socialmedia.home.liebherr.com

Your press contact

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SmartDevice app

The SmartDevice app allows you to control many Liebherr cooling appliances while you are on the move, call up status information, create stock and shopping lists and get inspired by recipe ideas.



BioFresh app

Useful information about the perfect storage of groceries, as well as their vitamin and mineral content.



Smoothies & Ice app

A quick tap on the screen, and ice cubes begin to tumble across the display. You can also get the best recipes for fresh and tasty smoothies.



Here you can download our apps and find out which operating system (Apple, Android etc.) they are available for.

