

THERMAL CONTROL SOLUTIONS

EGELHOF

READY FOR THE FUTURE

EGELHOF Group

Sustainability Report 2022

INTRODUCING

For EGELHOF, Sustainability is not just a buzzword, it is firmly embedded in the company. As a globally active company, EGELHOF is aware of its social, ecological and societal responsibility and assumes responsibility for the environment, products, society and employees. We are committed to the following corporate principles with regard to the sustainability aspects of **innovation, ecology** and **people**, which must be observed by all managers and employees.

At all locations worldwide, we actively pursue a permanent improvement of environmental protection. Especially for new developments, EGELHOF attaches great importance to the consideration of environmental aspects over the entire life cycle of the products.

In order to ensure compliance with basic ethical principles and legal regulations, the Global EGELHOF Business Code applies as a Code of Conduct for all employees of the EGELHOF Group. In this way, we comply with our duty of care along the supply chain towards society, our employees and the environment.





Bettina Egelhof-Mülhaupt
Chairwoman of the Advisory Board
EGELHOF Group

We are very pleased that the term "sustainability" has arrived in the middle of society, because at EGELHOF it has been part of our corporate philosophy for decades.

A family business such as we are can only be successful in the long term if it operates sustainably and takes the social and ecological context into account. And we like to do that with both heart and mind.

We established an environmental management system at our European locations in the end of the 1990s and have rolled it out worldwide in recent years. Since then, we have actively addressed the issues of resource conservation, avoidance of environmental pollution, and new technologies for the more efficient use of our products and those of our customers.

Trendy buzzwords such as sustainability, CO₂ footprint, globally responsible supply chain management and corporate social responsibility are met with concrete goals and measures at all our locations.

It is important to us shareholders to develop new ideas in order to make our contribution to a world worth living in. Therefore, our investment decisions are always subject to consideration of the impact on people and the environment. We have invested a lot in this over the last few decades and will continue to do so in the future. Act economically and engage in a socially and ecologically sensible way are inextricably linked for us.



Dr.-Ing. Stephan Wild
CEO EGELHOF Group

In the years 2012 - 2015 the United Nations (UN) launched a process of sustainability. At the end of this process, 17 target areas for sustainable development of humankind were adopted. These 17 target areas include, among others, improvements in the environment, climate, peace, nutrition and human rights.

Sustainable business processes have a long tradition at EGELHOF as a family. It has long been an integral part of EGELHOF's corporate guidelines as a family Company. In this respect, the UN goals did not mean a change of strategy for us, but a bundling of activities that have been established at EGELHOF for decades.

The UN goals are noticeably increasing our clients' requirements in the direction of sustainability. In the current award processes, sustainability aspects are increasingly relevant criteria when awarding contracts. Energy consumption, material recycling and human rights in the supply chain are meanwhile an integral part of our customers' specifications.

Against this background, the EGELHOF Group is publishing an official sustainability report for the first time in the company's history to document what has been achieved and to describe ongoing activities.



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THE COMPANY

As a specialist in control technology, the EGELHOF Group develops and produces valves for e-mobility and air conditioning as well as control components for the automotive and heating industry according to the highest technical quality requirements. The company looks back on a history of more than 80 years and is represented worldwide as a partner of the international automotive and heating industry with 8 locations and around 600 employees.

In addition to the management, the global sales department, the development department with testing and prototyping are located at the headquarters in Fellbach, Germany. At the production sites in France, India, China and the USA, state-of-the-art production lines and in-house toolmaking and mechanical engineering ensure maximum flexibility and rapid implementation of all customer requirements.

In 2019, the former RAY Öl- und Gasbrenner GmbH Fellbach was integrated into the EGELHOF Group. The new company RAY-EGELHOF develops and produces climate-neutral burner systems 100% "Made in Germany" and has a proven portfolio of CO₂-neutral industrial burners for bio-fuels.

More Information: www.egelhof.com



Fig. 1: EGELHOF Group Headquarter in Germany

INNOVATION

The sustainable use of resources is a key aspect for EGELHOF right from the product development stage.

With sustainable growth, our company will benefit from the development towards e-mobility.

For the EGELHOF Group, this development means a global change from component supplier to supplier of modules for battery management and air conditioning.

This increases the development share in our added value.



Fig. 2: EGELHOF Products

INNOVATION

SUSTAINABLE DESIGN OF PRODUCTS

How do we manage to make products sustainable? Three aspects are worth highlighting here:

- the selection of suitable materials
- the reduction of weight (also advantageous for vehicle operation)
- the ability to be dismantled at a later date (against the background of possible reuse).

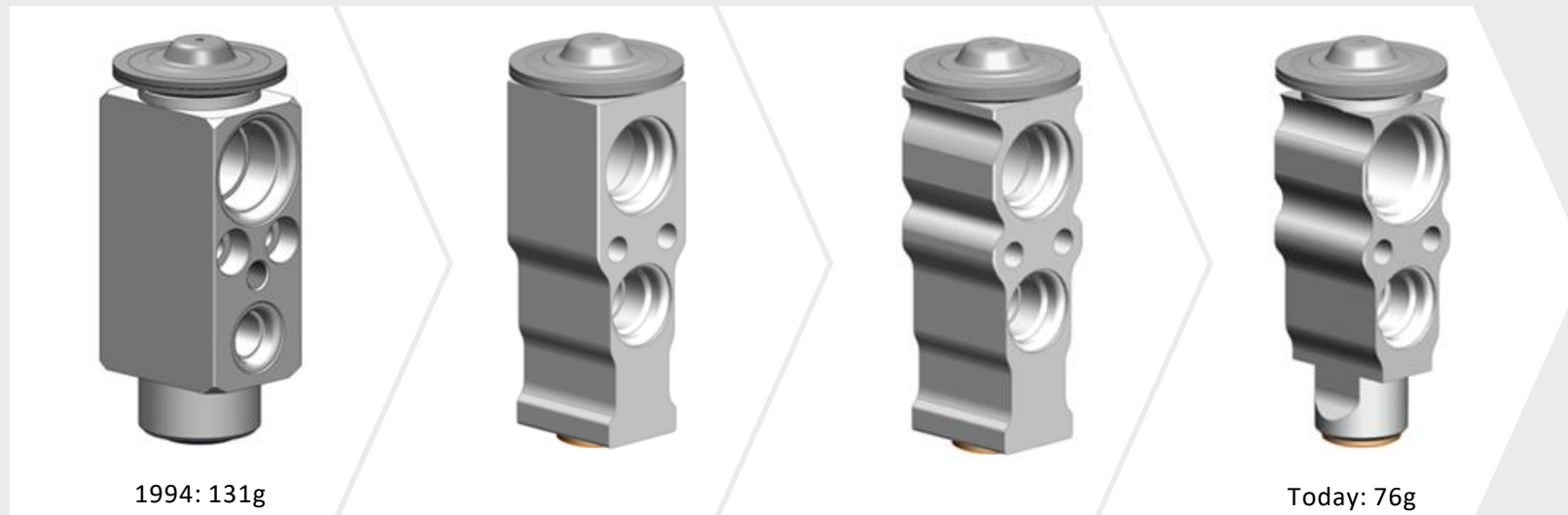


Fig. 3: Weight development of valve bodies



INNOVATION

CIRCULAR ECONOMY

Also against the background of rising prices and poorer availability of raw materials and resources, the reusability of products or parts is becoming increasingly important.

The recycling rate for the important raw material aluminium is approx. 60% for the EGELHOF Group as a whole. We are working intensively to further increase this quota.

In the area of CNC production, the aluminium chips are already completely recycled in our plants worldwide.

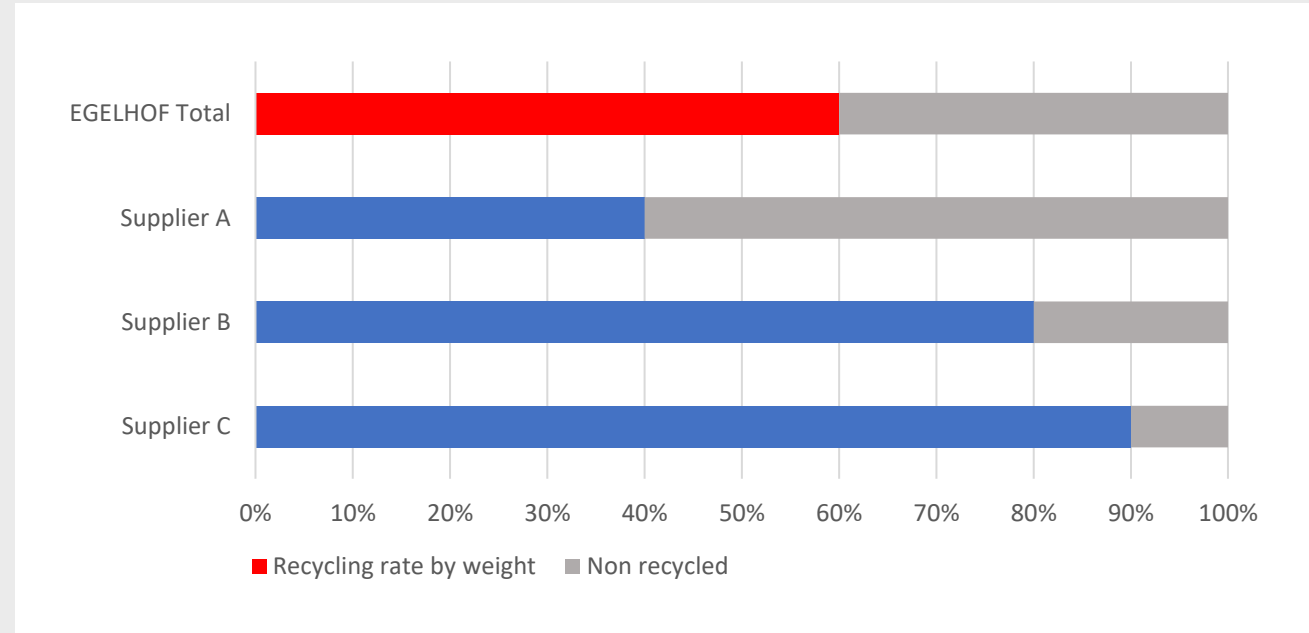


Fig. 4: EGELHOF Aluminium recycling rate by weight

INNOVATION

PRODUCT SAFETY AND PURITY OF POLLUTANTS

Ensuring the safety of our products and using materials that are as low in pollutants as possible are top priorities at EGELHOF. We therefore only use lead-free aluminium and also ensure that all other metal alloys in our products do not contain any lead, or only the smallest possible amount, as far as is technically possible.



Fig. 5: EGELHOF Electronic expansion valve and multi-way valve

INNOVATION

HYDROGEN - A TECHNOLOGY OF THE FUTURE



Fig. 6: RAY-EGELHOF Process heat from hydrogen with lowest nitrogen oxide emissions (Location: Cáseda, Spain)

ECOLOGY

Globalization, climate change, digitization, scarcity of resources and demographic change - these megatrends shape our time and require all social actors to make their contribution to coping.

This is also a major challenge for us as a company. Climate change is already a reality, greenhouse gas emissions continue to rise, extreme weather events herald future changes. Energy sources, natural resources, water, land and forests are already in short supply. Animals and plants have also been feeling the consequences of climate change for a long time. A million species on earth are threatened with extinction.

In the last 30 years, global trade has increased by 600%. Wealth and per capita income are doubling every 10 years. In addition, the world population has increased by 44% since 1990. This is accompanied by an increase in waste and resource consumption. Due to growing prosperity, the consumption of resources is even increasing disproportionately to the population development.

Our business activities should not cause any damage to the environment. EGELHOF develops, produces and supplies energy-saving and environmentally friendly products and disposes of waste in an environmentally friendly manner. Our company avoids wasting resources and continuously improves the environmental friendliness of our products, processes, facilities and buildings.



ECOLOGY

CLIMATE TARGETS

Europe wants to become a carbon neutral continent by 2050. This goal influences the day-to-day business of many companies.

Our customers are already demanding compliance with ambitious CO₂ targets in the offer phase for many new products from EGELHOF.

Source: EU Climate Targets, Blaetter.de

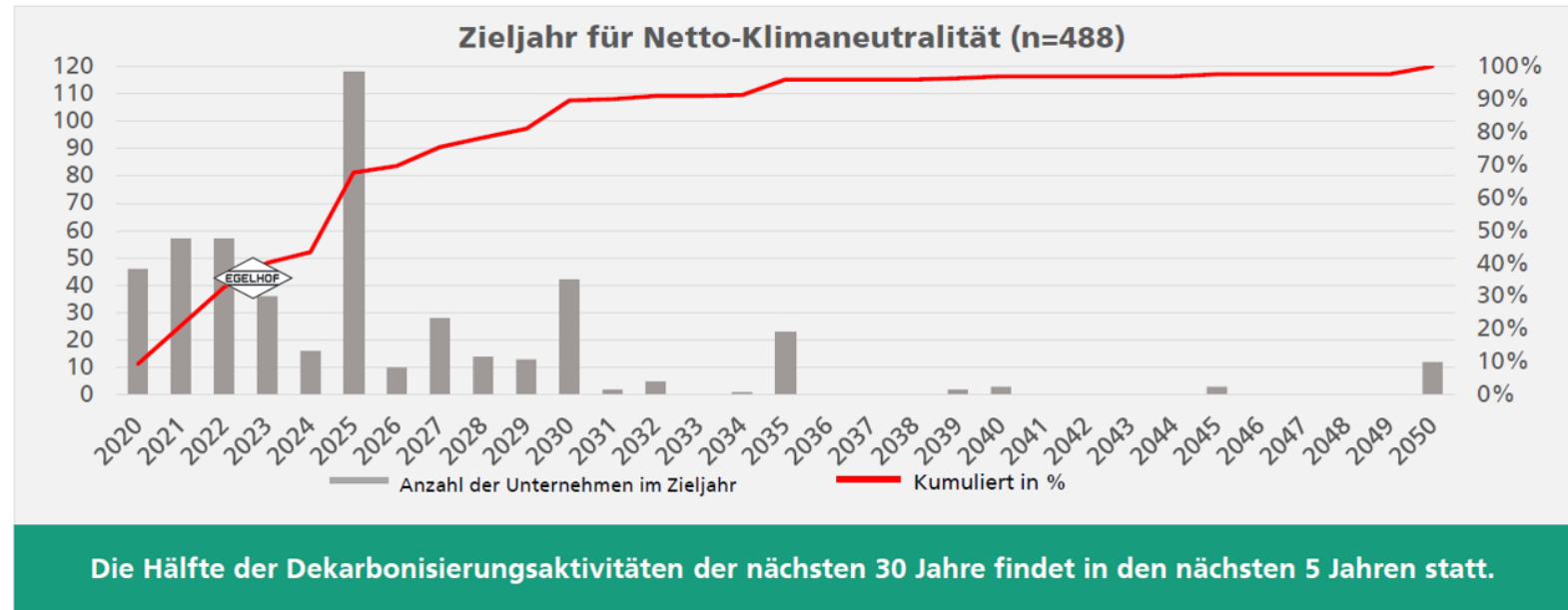




ECOLOGY

EGELHOF CLIMATE STRATEGY / CO₂ NEUTRALITY FROM 2023 ONWARDS

Von ca. 850 Unternehmen streben 489 Klimaneutralität an, 2/3 dieser bereits für 2025 (prä-COVID-19)



EEP Energieeffizienz-Index der deutschen Industrie 2019/II

Fig. 7: Target year with Climate Neutrality. Source: Fraunhofer Gesellschaft

ECOLOGY

EGELHOF CLIMATE STRATEGY / MATERIAL CONSUMPTION

The new products of the EGELHOF Group were developed for battery management and air conditioning of electric vehicles. In this way EGELHOF is making a valuable contribution to the change towards e-mobility.

This strategy of the EGELHOF Group thus not only reduces our CO₂ footprint but also ensures long-term sustainable growth and the preservation of jobs in the company.

The next logical step for EGELHOF is also the consistent reduction of product-related CO₂ emissions (Scope 3). This process is already underway, as exemplified in Fig. 8: EGELHOF valve body, with the constant further development of EGELHOF valve bodies with regard to minimal material use.

In addition, the recycling quota is continuously being increased. In the EU it now amounts to over 80% of the total mass of a valve body.

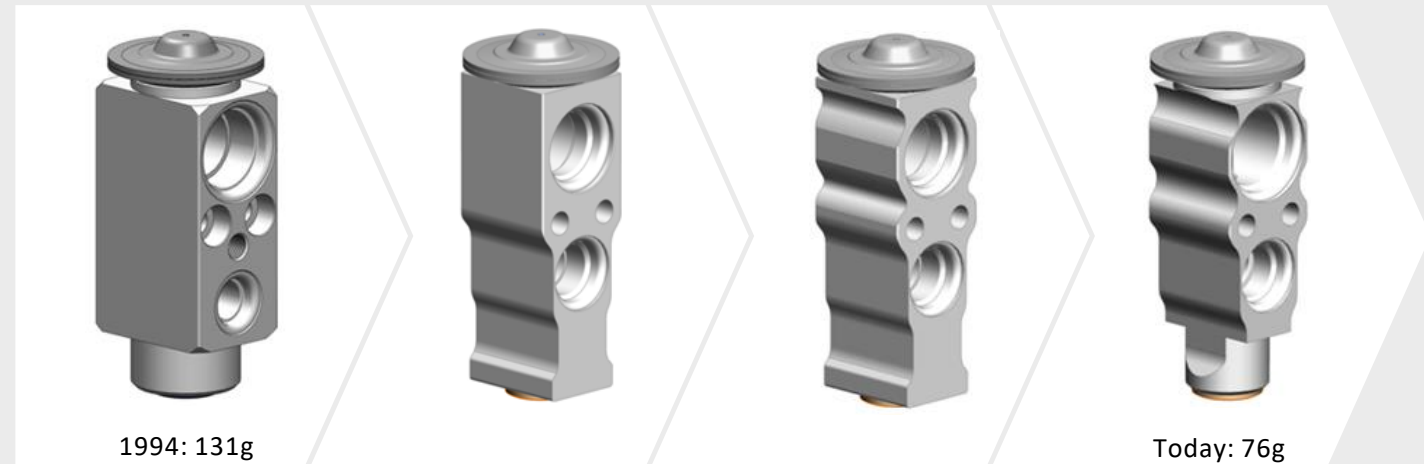


Fig. 8: Weight development of valve bodies



ECOLOGY

EGELHOF CLIMATE STRATEGY / SUSTAINABLE ENERGY MANAGEMENT IN THE COMPANY

In the international production plants of the EGELHOF Group, more than 90% of the energy required for production is covered by electricity. All plants have been working in an extremely resource-saving way for years and the French plants have the additional advantage of a very good CO₂ balance due to French nuclear power.

EGELHOF Group Energy consumption (kWh)	2022	2021	2020
Energy consumption overall result	15.215.001	15.698.625	13.360.590
Natural Gas	1.286.125	1.366.150	1.153.245
Electricity	12.579.976	12.873.401	10.968.177
Home-generated electricity (Photovoltaic)	-135.323	-169.884	-128.792
Fuel	101.279	72.602	114.668
Light Oil	249.872	185.977	163.016
Propane	997.750	1.200.495	961.484

Fig. 9: EGELHOF Group Energy consumption

www.stadtwerke-fellbach.de

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EIN HÄNDCHEN FÜRS KLIMA

Egelhof-Produkte sorgen für ein komfortables Klima – zu Hause und im Auto. Die Firmengruppe mit Hauptsitz in Fellbach entwickelt und produziert BAUTEILE FÜR DIE KÄLTE- UND HAUSTECHNIK.



Sich im Auto gekühlte Luft um die Nase wehen zu lassen, war lange Zeit ein Luxus-Vergnügen. Die ersten Klimaanlageanlagen für Pkw in Europa gab es in den Fünfzigerjahren. Bei der Weiterentwicklung dieser frühen Kühlsysteme für den Fahrzeugmarkt hatte die OTTO EGELHOF GmbH & Co. KG ihre Finger mit im Spiel: Auf Anfrage der Firma Behr startete das 1938 in Fellbach gegründete Unternehmen mit der Entwicklung von Expansionsventilen für Autos – und etablierte damit ein Geschäftsfeld, mit dem es bis heute eine fortlaufende Erfolgsgeschichte schreibt. „Der Einstieg in die Automobilbranche war für EGELHOF damals ein historischer Moment“, sagt Bettina Egelhof Mülhaupt, Enkelin des Firmengründers Otto Egelhof und Vorsitzende des Unternehmensbeirats.



„Momentan werden die Weichen gestellt für die nächste Generation von E-Fahrzeugen. Da sind wir dabei.“

Dr. Stephan Wild

VON FELLBACH IN DIE WELT „Können Sie uns Biegelgeräte für Gasherde entwickeln?“ Auch dieser Herausforderung eines Unternehmers stellte sich der Werkzeugbauer und Kaufmann Otto Egelhof in den Nachkriegsjahren. Das Ergebnis war eine ausgeklügelte Fertigung zunächst in Fellbach und seit 1960 auch die erste EGELHOF-Produktionsstätte in Frankreich – da die Franzosen Freunde des Gasherdes blieben, während sich in Deutschland eher Elektroherde durchsetzten. Damit erschloss sich das Unternehmen sein zweites Geschäftsfeld: Wärme- und Heizungsregelung. Unter der Leitung von Walter Egelhof expandierte die heutige EGELHOF-Gruppe kontinuierlich und wurde mit dem Geschäftsführer Kai Heinz Schlegel zum Weltunternehmen mit insgesamt rund 600 Mitarbeitern an Standorten in Frankreich, China, Indien und den USA. Im Jahr 2019 übernahm EGELHOF die Fellbacher Firma RAY Öl- und Gasbrenner GmbH, heute RAY EGELHOF GmbH.

MIT E-MOBILITÄT IN DIE ZUKUNFT Eine gute Firmenstruktur, Investitions- und Risikobereitschaft, Innovationsfreudigkeit

der Firmengruppe ist. „Wir beliefern alle einschlägigen Hersteller von Elektrofahrzeugen“, so Wild.

IM EINSATZ FÜR DEN KLIMASCHUTZ

Bettina Egelhof Mülhaupt betreibt seit 2000 das Umweltmanagement für das Familienunternehmen. „Wir können diesbezüglich sehr fortschrittliche Bezugsgrößen vorweisen“, sagt sie. Die Enkelin des Firmengründers ist immer wieder engagiert im Einsatz, etwa in Sachen Müllmanagement, im Abwassermanagement oder bezüglich klimaneutraler Energieversorgung. Mit der Photovoltaikanlage auf dem Dach der Zentrale in Fellbach deckt EGELHOF bereits einen großen Anteil des Eigenbedarfs an Strom. Zu den Stadtwerken besteht indes eine langjährige Verbindung. „Die Stadtwerke Fellbach sind für uns zuverlässige und gute Partner in der Region mit kompetenten Ansprechpartnern“, resümiert Bettina Egelhof Mülhaupt.



Bettina Egelhof-Mülhaupt ist es wichtig, das Erbe ihres Großvaters zu erhalten. Im Hintergrund die PV-Anlage auf dem Fellbacher Firmengebäude.

ECOLOGY

EGELHOF CLIMATE STRATEGY / RESOURCE CONSERVATION: OWN ELECTRICITY THROUGH PV SYSTEMS

In 2018, the roof of the main building at the EGELHOF Group headquarters in Fellbach was renovated. Old Eternit panels with foam were completely removed and replaced by aluminium-laminated sandwich panels.

Subsequently, a photovoltaic system consisting of 320 modules with a total output of 94.8 kWp was installed on the entire roof surface of the main building and the administration building.

Of course, this type of electricity generation depends on the weather, but in the Stuttgart region you can expect about 930kWh per kWp/ per year. For EGELHOF, this corresponds to a total electricity generation of approx. 88,164 kWh per year.

The system on the main building was put into operation in September 2018. The following year, the roof area of a warehouse building on the grounds of the headquarters was also renovated. Here, a photovoltaic system of almost the same size with a total output of 93.6 kWp was installed and commissioned in November 2019.

This means that around 176,328 kWh of electricity is generated at the Fellbach site in one year.



Fig. 10: Roof area of main and storage building in Fellbach

ECOLOGY

EGELHOF CLIMATE STRATEGY / RESOURCE CONSERVATION: HEAT RECOVERY FOR HEATING

The central compressed air supply is used to heat the EGELHOF headquarters in Fellbach for prototyping and testing. The waste heat from the operation of the compressors is filtered and used by intelligent building technology to heat the rooms.

In our production plants in China, India and the USA, the electrical waste heat from the production machines is also used to heat the production areas.



Fig. 11: Intake connection for warm air in the compressor compartment



Fig. 12: Air fine filter, tube fan and air pre-filter of the exhaust air system



ECOLOGY

EGELHOF CLIMATE STRATEGY / CARBON FOOTPRINT

The energy-saving measures described here illustrate the sustainable use of the energy sources used. Due to the low energy demand, the remaining CO₂ emissions can be compensated by the purchase of CO₂ certificates.

The compensation of CO₂ emissions by certificates is also subject to the EGELHOF sustainability principles. The certificates come from projects in the countries where EGELHOF operates its plants. The projects are selected according to the principle of least environmental impact. It is planned to have these projects audited by local EGELHOF employees on site.

From the end of 2022, the EGELHOF Group is therefore working worldwide with certification as CO₂-neutral in accordance with the EU specifications for Scope 1 and 2.

EGELHOF Group production related CO ₂ emission (t CO ₂)	2022	2021	2020
Total CO ₂ Output	3.889	4.527	3.008
Direct emissions Scope 1 (natural gas, fuels, light oil, propane)	590	630	535
Indirect emissions Scope 2 (electricity)	3.299	3.896	2.473

Fig. 13: EGELHOF Group CO₂ balance



ECOLOGY

EGELHOF CLIMATE STRATEGY / WATER AND WASTE

Environmental awareness and competence are among the essential prerequisites for environmental management in practice. All our plants worldwide have a certified environmental management system according to ISO 14001. Regular environmental audits check the effectiveness of our environmental management system. Our management is based on guidelines for the handling of water and wastewater as well as materials and waste.

The exploitation of antisocial and environmentally harmful practices in the extraction of raw materials finances armed conflicts and destroys the environment in some parts of the world. We therefore support the restriction of minerals from conflict regions.

Water is not required as a direct resource for production processes at EGELHOF. The percentage of sanitary water in total water consumption is over 95%. The remaining small amounts of wastewater from cooling and cleaning processes are neither directly nor indirectly discharged, but completely disposed of as waste by certified contractual partners.

At all EGELHOF plants worldwide, the quantities of waste generated are recorded and separated into non-hazardous and hazardous waste.

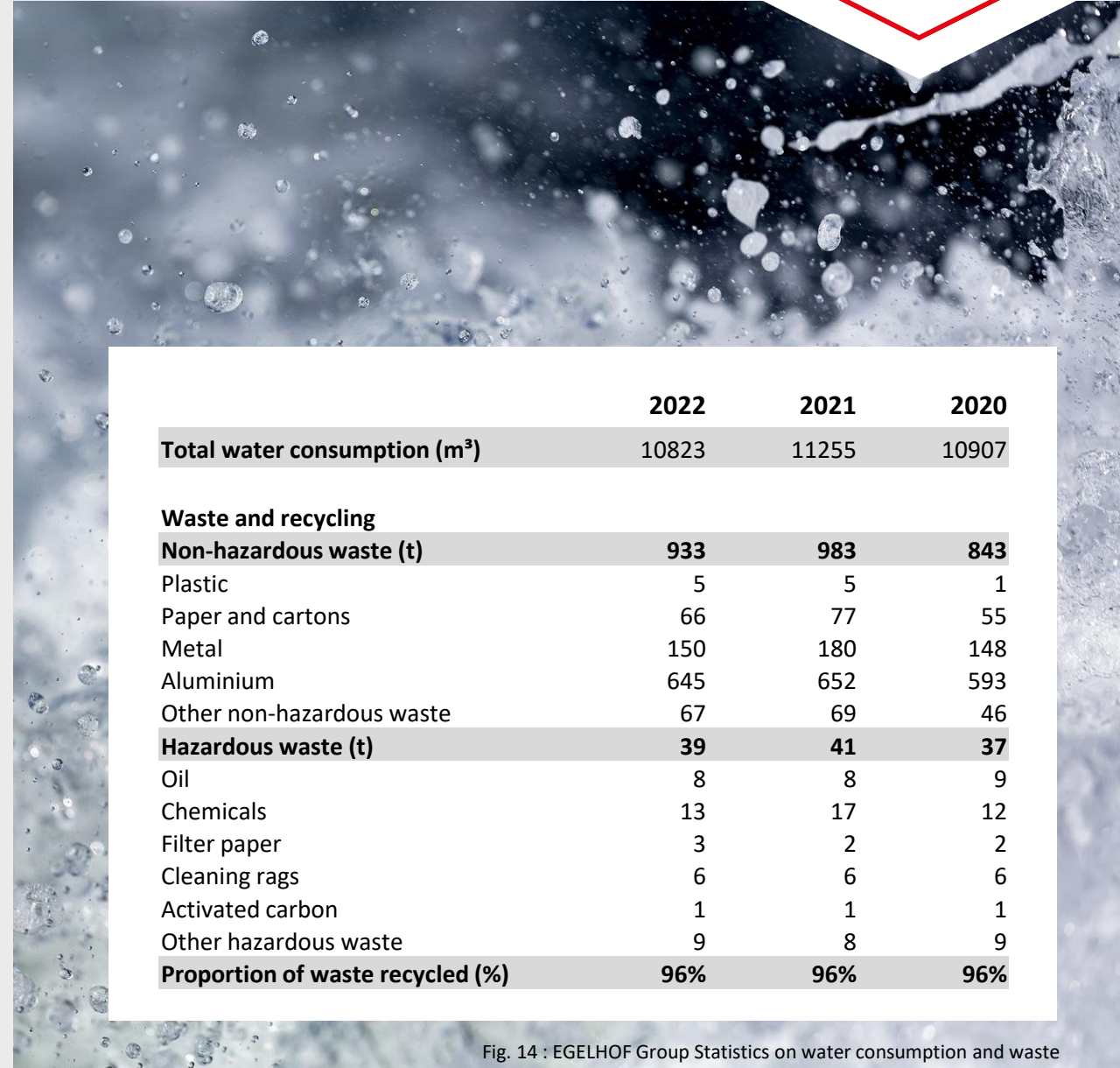


Fig. 14 : EGELHOF Group Statistics on water consumption and waste



PEOPLE

EGELHOF is a medium-sized company in the German metal and electrical industry, that generates added value for our customers through our products and services and creates jobs and a living wage for employees, suppliers and shareholders through our operations.

Our products and services help to reduce environmental and health impacts and make our customers' daily lives easier. We have a partnership with our suppliers. Managers and employees enjoy working for the company.

Our operations do not cause any harm to people's health. We are a fair and reliable business partner for our customers and suppliers. We value every person in our company and stand by our social responsibility.

For us, sustainability means in particular cultivating long-term relationships, both with customers and with employees and the region.





PEOPLE

EMPLOYEES

EGELHOF sees itself as a family-friendly company. Diversity, interculturality and internationality are of great importance for our company and corporate culture. We pay attention to performance and give employees who are willing to work hard opportunities for development.

We live in times of demographic change and increasing competition for skilled workers. Corporate responsibility is an increasingly important factor for employees.





PEOPLE

EMPLOYEES

EGELHOF offers our employees the opportunity to balance work and private life in different phases of life, which counts as an important pillar of employee support. Our goal is to increase the satisfaction of our employees, but of course also our attractiveness as an employer.

This also includes flexible working time models that are compatible with different life situations. Various working time models, including part-time, can be found at all hierarchical levels.

Our guidelines for a flexible and family-friendly work culture also include topics such as quickly returning to work after a break or part-time, and of course the possibility to work on a mobile basis.

The satisfaction of our employees is reflected in an average length of service of 10 years, especially in Germany the employees remain loyal to the company for a very long time.



Total number of employees	615
Average ages (Years)	44
Average length of services (Year)	10
Number of women in the total workforce in %	45
Number of women in management positions in %	5

Fig. 15: EGELHOF Group Employee Statistics

PEOPLE

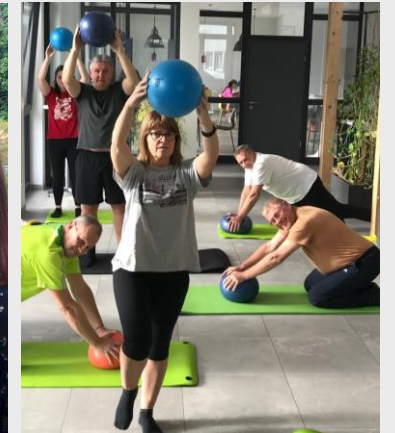
EMPLOYEES / HEALTH AND COMMUNITY

The flexibility of working hours in terms of time and location has been intensified since the beginning of the COVID-19 pandemic and laid down in the company agreement. Furthermore, specific agreements on mobile working have been made in individual plants.

In addition to the expansion of flexible working time and location models, further measures have been taken to improve the compatibility of work and private life.

We support through the possibility to take parental leave or time off to care for relatives.

In addition, EGELHOF grants special leave days or time off for special activities, such as community initiatives and volunteering.



PEOPLE

EMPLOYEES / OCCUPATIONAL SAFETY AND HEALTH PROTECTION

EGELHOF fulfils the usual requirements for occupational health and safety. Our in-house defibrillator is also publicly available as part of the defibrillator network (Definetz e.V.: Defikataster).



Fig. 16: Fire damper in the basement, Fellbach / defibrillator

PEOPLE

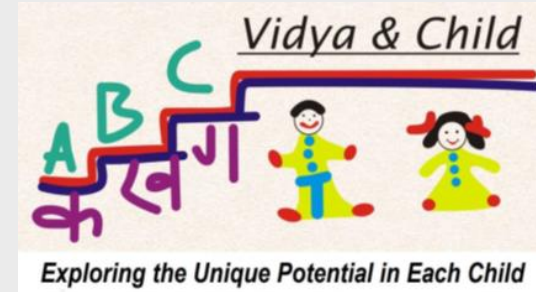
CORPORATE / DONATIONS AND SPONSORING

As a globally active company, EGELHOF is committed to its social responsibility. As part of our sustainability strategy, we support cultural and social projects at the respective locations worldwide.

In Germany, EGELHOF is a successful family company in its 4th generation based in Fellbach. Our company has a strong connection to its location and we support various local projects.

In addition, EGELHOF supports social projects with donations and sponsoring activities worldwide.

At our Noida location in India, EGELHOF supports the Vidya & Child project. It enables children from socially disadvantaged backgrounds or guest worker families to receive a complete education from elementary school to 12th grade. EGELHOF has been helping there for years with donations for the purchase of drinking water dispensers, IT equipment and the payment of teachers.





PEOPLE

CORPORATE / DONATIONS AND SPONSORING

An outstanding example is the support of the "FOOD 4 THOUGHT" project for the "Funimundo" pre-school for three- to six-year-old black children in Stanford, South Africa.

Our French plant in the Alsace region maintains a tradition by promoting local youth and sports clubs. With the financial support, a close connection is established between the company and local life.



PEOPLE

CORPORATE / WHISTLEBLOWING

EGELHOF is committed to the highest standards of business ethics and legal compliance. These can be found in our global EGELHOF Business Code, which as part of the EGELHOF Risk Management System, is intended to guarantee the long-term well-being and reputation of our company.

Therefore, it is of great importance for EGELHOF to have procedures in place to be able to report concerns about actual or suspected misconduct in EGELHOF's business activities in a responsible and effective manner, while providing protection against retaliation.

A fair whistleblower system helps to quickly uncover violations of the law and rules, to investigate them without delay and to end proven misconduct. After all, violations of laws and guidelines can cause serious damage to the company, its employees and business partners, but also to the general public.

On the EGELHOF homepage, the whistleblower system can be found in the section "About EGELHOF".

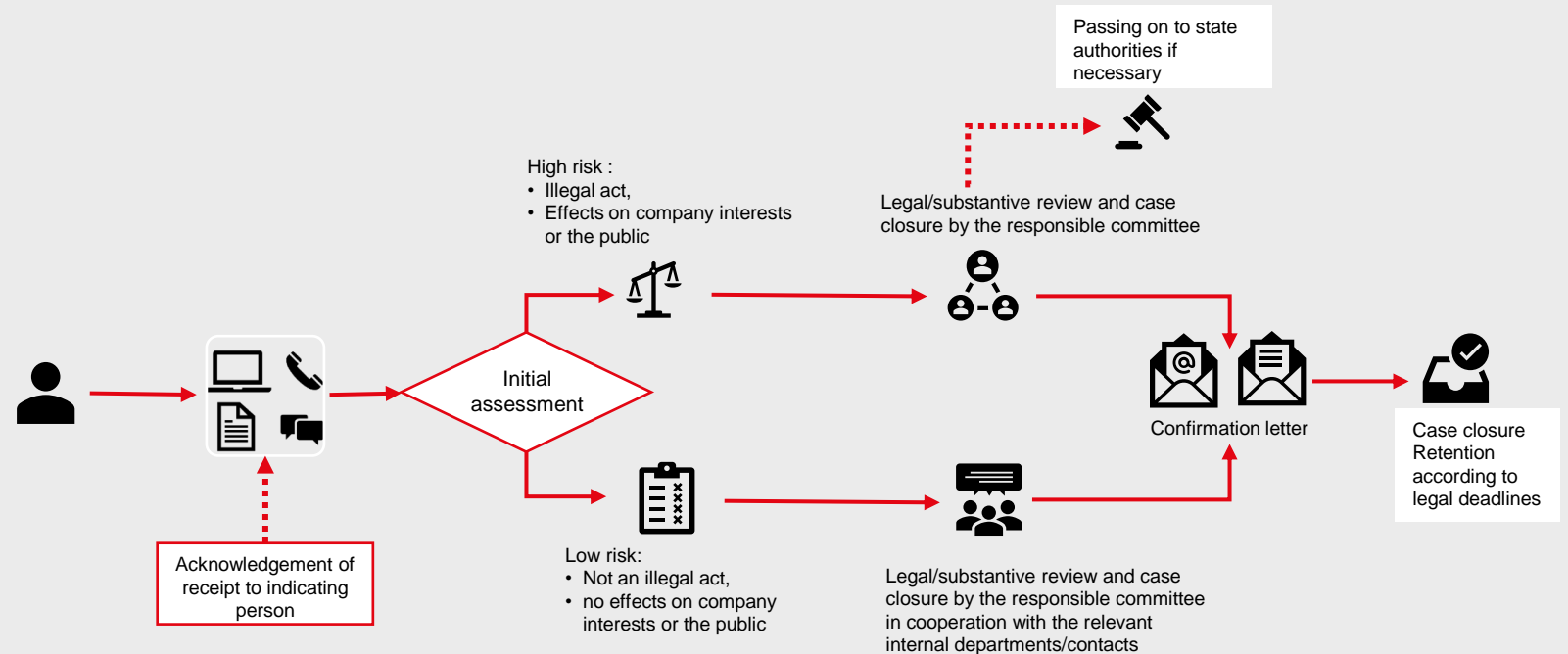


Fig. 17: EGELHOF Group Whistleblowing Process

More information on the whistleblower system can be found on the EGELHOF homepage in the section "About EGELHOF".



PEOPLE

CORPORATE / RESPONSIBILITY IN THE SUPPLY CHAIN

As a manufacturing company, EGELHOF is obligated to ensure the health, safety and protection of people and the environment.

We encourage this along the whole production and supply chain, which takes into consideration not only economic but also social and ecological factors.

We pay attention to the observance of human rights along the supply chain and support the restriction of minerals from conflict regions.

Social and ecological aspects play an important role for us in the selection of suppliers. Criteria for quality, social, environmental and occupational safety standards are also evaluated in supplier audits.

Our suppliers are aware of our requirements in terms of social responsibility and ecology. We oblige our suppliers to uphold our compliance rules and our Code of Conduct.





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REMARKS

ON THE REPORTING

This report was written in accordance with the guidelines of the Global Reporting Initiative (GRI) and has not been externally audited or validated.

The data presented were determined in cooperation with the relevant departments within the EGELHOF Group. The numerical values are commercially rounded.

THANKS TO ALL COLLABORATORS!

Imprint:

OTTO EGELHOF GMBH & CO. KG
Stuttgarter Street 60
D-70736 Fellbach
T. +49 711 57547-0
F. +49 0711 57547-241
www.egelhof.com

Editorial office:

Corporate Social Responsibility
EGELHOF Group

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