SUSTAINABILITY REPORT 2022

Future-proof solutions

FEINTOOL
Expanding Horizons.

Feintool is a worldwide-leading technology company specializing in components from fineblanking, forming, and stamped electrolamination for the automotive industry and demanding industrial applications. Our portfolio includes precision parts for rotors and stators in electric vehicles and wind turbines. Feintool also develops powerful and energy-efficient fineblanking systems.

The Group stands out through cost-effectiveness, innovative strength, high productivity with exceptional quality, a strong service mentality, and sustainable corporate management. As drivers of innovation and an organization with a culture of continuous learning, Feintool pushes the boundaries of technology in the processing of steel sheets and the development of intelligent solutions for customers' specific needs. In the transformation of the automotive industry, the company has proven itself as a strong development partner in lightweight construction/sustainability, module variations/platforms, and alternative drive concepts such as electric drives and hybrid vehicle drives. This is how Feintool is bringing about the future of mobility.

Founded in 1959 and headquartered in Lyss, Switzerland, the Group runs 19 production plants and technology centers on three continents. In line with the motto "global competence, local presence," the company's 3 500 employees are always right by the customer's side in the main economic regions.

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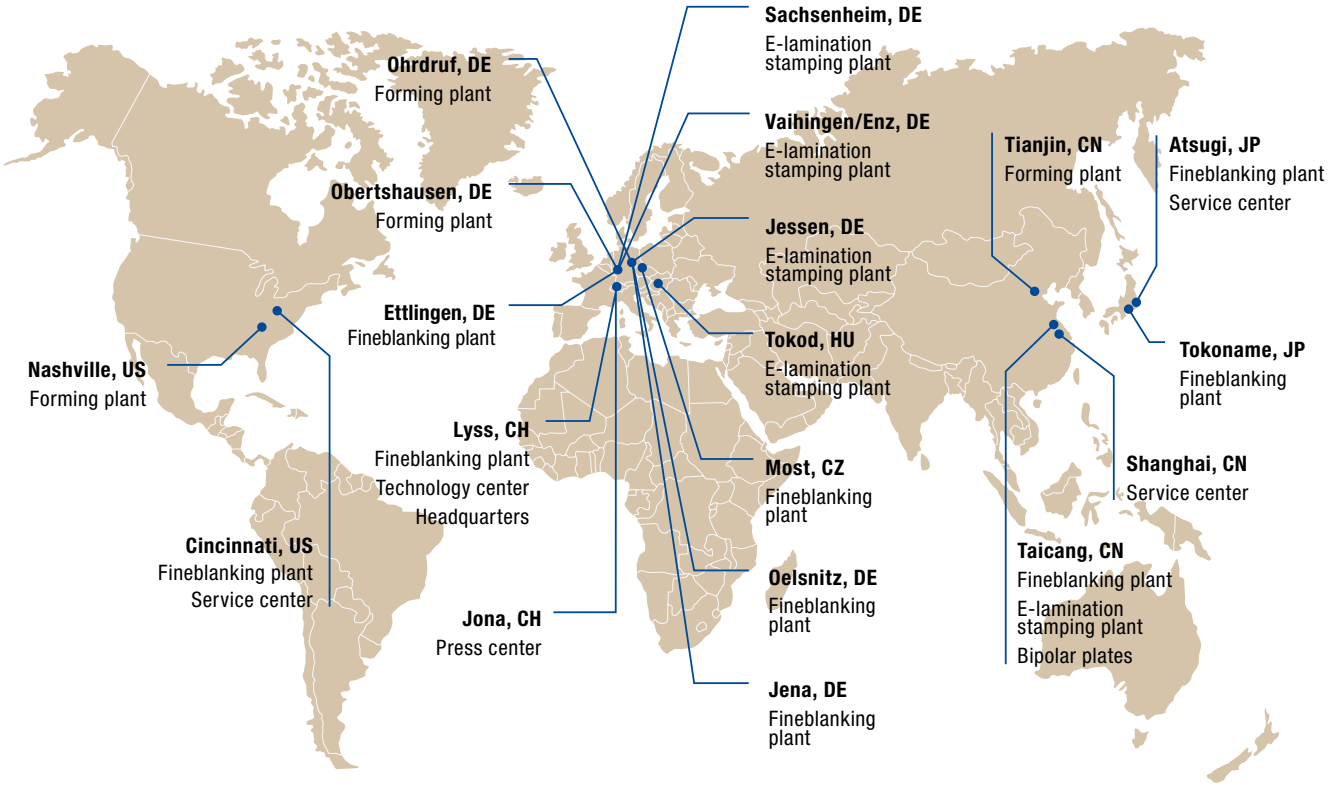


19
locations

CONTENT

PRECISION TECHNOLOGY: POWER FOR ELECTRIC DRIVES

INPUTS

Financial capital

Intellectual capital
Technological expertise, patents, and innovation to meet market needs

Employees

Production facilities

External resources
Raw materials, products, services, procured energy, other infrastructure

Partnerships
Research partnerships, customer loyalty, supplier network

Good governance

Feintool covers the fineblanking process and utilizes key processes such as cold forming and electrolamination stamping to develop and produce high-precision sheet metal technology for the mobility of tomorrow and for demanding industrial applications. To this end, the Group draws on various resources ("inputs"), and converts these into value-added outcomes for customers using its knowledge, expertise, and products.

OUTPUTS

- Products, secondary products
- Services
- Patents
- Efficiency improvements
- Technical optimization
- Knowledge, skills
- Innovation
- Emissions
- Waste

OUTCOMES

- Profits, cash flow, taxes, and social security contributions
- Job creation and positive impact on safer and fair working conditions
- Enhanced brand value and customer confidence
- Contribution to shaping the future of mobility through high-performance sheet metal technology
- Procurement and operations: conservation of resources through carbon-neutral energy sourcing, efficient technologies, and processes
- Knowledge transfer and training investments to increase employees' skills sets and their ability to innovate
- Dedicated and satisfied employees through good corporate governance

Focus on four UN Sustainable Development Goals

SELECTED KEY FIGURES

+ 46.6 %
sales growth incl. new acquisition

11 %
employee turnover

> 50 %
share of sales generated by carbon-friendly applications

39 %
share of electricity from renewable sources after integration of the Kienle + Spiess Group

- 4 200 MWh
energy consumption

99 %
recycling rate

Feintool is committed to supporting the United Nations Sustainable Development Goals (SDGs). The Group believes that there are four key areas of activity where it can make the biggest difference (see above). For example, the company has set itself specific climate targets, it creates attractive jobs and sustainable growth through innovation, and it advances resource-friendly processes and workflows.

“OUR SUSTAINABILITY MANAGEMENT PLAN IS RIGHT ON TRACK”

In 2022, Feintool continued to drive forward its progress in sustainability. In this interview, Knut Zimmer details the corporate strategy as well as the technology group’s roadmap for the ESG areas of environment, employees, innovations, and governance. He stepped down as CEO of the Feintool Group at the end of the year; Torsten Greiner took over leadership of the Group on January 1, 2023.

How did market conditions in 2022 impact Feintool’s course?
The year brought some challenges along with it. High steel prices put a particular strain on the business, as did the skilled labor shortage. The COVID-19 pandemic continued to provide a degree of uncertainty for the markets, and the war in Ukraine influenced energy prices and inflation. Despite all of this, we were able to close the financial year with a gratifying result, and we were fortified in terms of our 2030 growth strategy through exciting new orders.

What does that mean?
Feintool will be using strategic acquisitions and innovative products to focus on the megatrend of electrification, yet the traditional markets will not be neglected. In doing so, we will cover a broad product portfolio and will improve our market position as a leading manufacturer of rotors and stators in Europe. We are set up well for the future of electric and hydrogen mobility – and indeed equally so for applications in the automotive industry, in wind power, and in industry. This effectively secures our course of business. The proportion of sales going to innovative, CO_2-friendly applications now amounts to more than 50 percent.

In 2019, Feintool started setting and continuously developing a sustainability management plan and ESG objectives (see p. 8). What was achieved in the last year?
Our sustainability management plan with self-established objectives is right on track. Key phrase: climate objectives. To meet the target of cutting carbon emissions (Scope 1 and 2) in half by 2030, all Feintool Group companies now have a roadmap that will be implemented promptly. We have also started looking at emissions in the supply chain (Scope 3). Just like with most companies, these make up the lion’s share of total emissions. Steel supply is the biggest contributor for us. We are in talks with manufacturers about “green” steel, but our capacity to influence here is limited. We also require steel that meets specific qualitative specifications, which doesn't simplify the situation. Nevertheless, we see ourselves as having an active role in reaching global climate objectives and have been investigating the potential for reducing emissions in the supply chain since 2022. We’re also doing what we can where we do call the shots. All plants already have a certified environmental management system. In Germany in 2023, all plants of the newly acquired Kienle + Spiess Group will also be transitioned to green energy. We will follow suit in other regions incrementally. And last but not least, the Board of Directors has drawn up a new Code of Conduct, including a separate one for suppliers.

Successful hand-off: Torsten Greiner (right) took over leadership of the Group from his predecessor, Knut Zimmer, on January 1, 2023.

And what has been done in terms of personnel?
We are positioning ourselves as an engaging and attractive place to work. Our goals are to foster strategic employee development, help employees feel connected to the company, strengthen diversity, and attract new qualified employees. For instance, we launched a global Talent Management Program for 30 employees in 2022, which has evolved very well. Furthermore, we have started offering a continuing professional development program for managers, and specifically also for women, and have developed a digital learning and communication platform. All initiatives will be launched or continued in 2023. For occupational health and safety, group-wide ISO 45001 certification is underway as planned. One thing is certain: Only motivated, healthy, and qualified employees guarantee success over the long term.

What are the challenges and opportunities you see?
The transformation process driven by climate issues creates attractive opportunities for Feintool. Our corporate strategy is aligned with this, safeguarded by the continuity in management. In my eyes, energy supply and inflation pose the greatest risks. Even here, though, there is a light at the end of the tunnel, even if that differs from region to region.

About
CEO Torsten Greiner

He knows his way around innovate technologies: Torsten Greiner has been leading the Feintool Group and the System Parts segment since 2023. He brings with him a great deal of expertise from his many years in management positions with companies such as Robert Bosch and Brose Schliesssysteme, and most recently as CEO of the automotive supplier Edscha. The 57-year-old graduate engineer started his career with an apprenticeship as a machinist and then went on to study mechanical engineering. In his free time, the father of two enjoys spending time in nature with his family, jogging, and getting on the golf course.

SUSTAINABILITY GOALS
An overview of progress

In accordance with Environmental, Social, Governance (ESG) criteria, Feintool set specific sustainability goals for the entire Group in 2021. The technology leader is currently on track to meet its targets, with the global sustainability team coordinating all related projects.

			Progress
Environment			
	50 % reduction in carbon emissions (Scope 1 and 2)	by 2030	on track ☑
	ISO 14001 certification of all sites	by 2023	done ☑
	Calculation of Scope 3 emissions with a focus on steel	by 2023	done ☑
Employees			
	Implementation of a global talent management program and establishment of a talent pool	2022	done ☑
	ISO 45001 certification of all Feintool sites	by 2028	on track ☑
Innovation			
	Increase the share of sales generated by carbon-friendly applications to 70 percent	by 2028	on track ☑
Governance			
	Successful coordination of the implementation of all measures and further refinement of goals by the global sustainability team	annual review	done ☑
	Further governance optimization	2023	planned ☐

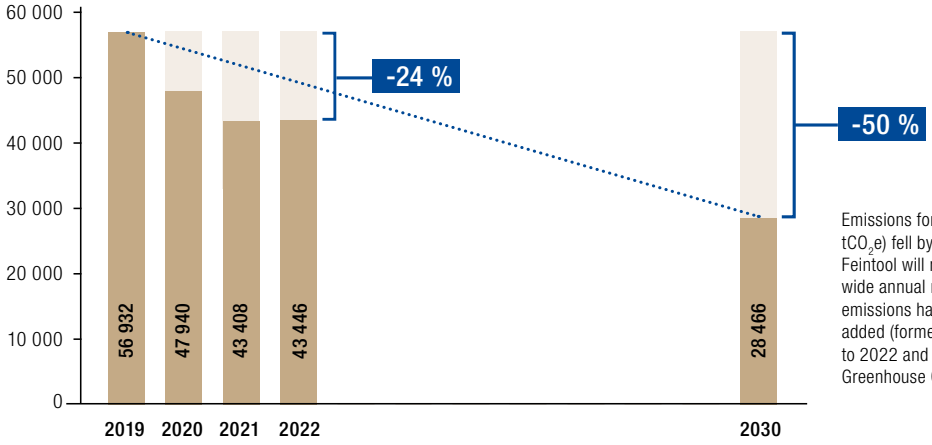
Environment: Feintool has committed to halving CO_2 emissions caused by its own operational activities (Scope 1 and 2). In the current fiscal year, 2023, the company will also assess emissions that occur within the supply chain (Scope 3, see p. 21) as part of a project delivered in collaboration with a customer.

Employees: By 2028, the existing occupational safety management at all 19 Feintool locations should be certified to the international health and safety standard ISO 45001. The Tokod site in Hungary already has this ISO certification.

Innovation: Feintool innovated its already attractive product portfolio throughout 2022 and the share of revenue generated by climate-friendly applications is now over 50 percent.

Governance: In 2023, the central management of sustainability initiatives will be strengthened across the company.

Status CO_2 reduction target (Scope 1 and 2): -50 % until 2030



Emissions for Scope 1 and 2 (measured in tons of CO_2 equivalents tCO_2e) fell by a total of 24 percent between 2019 and 2022. Feintool will now develop a detailed roadmap for further Group-wide annual reductions (up to 2030). The data for energy and CO_2 emissions has been supplemented with values from the newly added (formerly Kienle + Spiess) locations for the years 2019 to 2022 and recalculated according to guidelines set out in the Greenhouse Gas Protocol (GHG Protocol).

STEERING WITH FORESIGHT

Feintool strengthens governance and excels in IT security

Responsible handling of raw materials and other natural resources has been a big component of Feintool's operational efficiency since day one. The technology Group has also made other aspects of sustainability part of its operations over the years, and began annual reporting for its performance in this regard in 2019.

The Board of Directors bears ultimate responsibility for this aspect of the company's operations, signing off the annual Sustainability Report, which is delivered by the Executive Board. Alongside sustainability, the scope of risk management was expanded in 2022 (see pp. 10–13). In view of this, and other related activities, Feintool is being evaluated by an external agency in the current financial year to receive an ESG Risk Rating. Additionally, the role of the Board of Directors in managing sustainability activities will be fortified in 2023. Coordination of the pertinent matters will be handled by a global sustainability team, whose coordinator will report to the Executive Board. The Executive Board will keep the Board of Directors informed of the team's activities.

Data security

The protection of customer data is a high priority for Feintool. The company has always been set up very well in terms of both customer data protection and information security. The Chief Information Officer (CIO), based at the Obertshausen (DE) site, is responsible for IT at the Group level. An external Data Protection Officer also creates an annual report, and Data Protection Coordinators are responsible for their respective sites. The results of this strong security structure have been impressive, with no complaints regarding customer data breaches or loss in the current reporting year.

To ensure that Feintool complies with best practices for checking and exchanging data in the automotive industry, Feintool underwent a Trusted information Security Assessment Exchange (TISAX) audit in 2022. On the basis of this, the Group expects to achieve TISAX certification in 2023. The TISAX audit involves multi-session on-site checks and questionnaires to ascertain secure handling and exchange of information. The standard, which is associated with ISO 27001, is a mark of quality that further significant value to the Feintool brand.

Compliance

Observing legal requirements and internal guidelines is a given at Feintool. As such, the company has long-established procedures for filing complaints with independent agencies, and defined responsibilities and sanctions in the event of such a case. The Feintool Code of Conduct has also been completely reworked to fulfill our claim to be a totally 'value-driven' business.

The new Code, now considerably expanded in scope, has been launched since the end of 2022, along with training for employees. The ethical standards of this comprehensive Code are fundamental to Feintool's corporate culture. An additional Code of Conduct for suppliers, and a policy statement concerning human rights, were also being prepared in 2022.

Feintool guidelines also incorporate responsibility for the health and safety of customers, as well as mandates for the protection of natural resources. There were no reports in 2022 of violations to the Code of Conduct, corruption, or negative impacts to the customer caused by Feintool products.

Rules, guidelines, and policies at Feintool

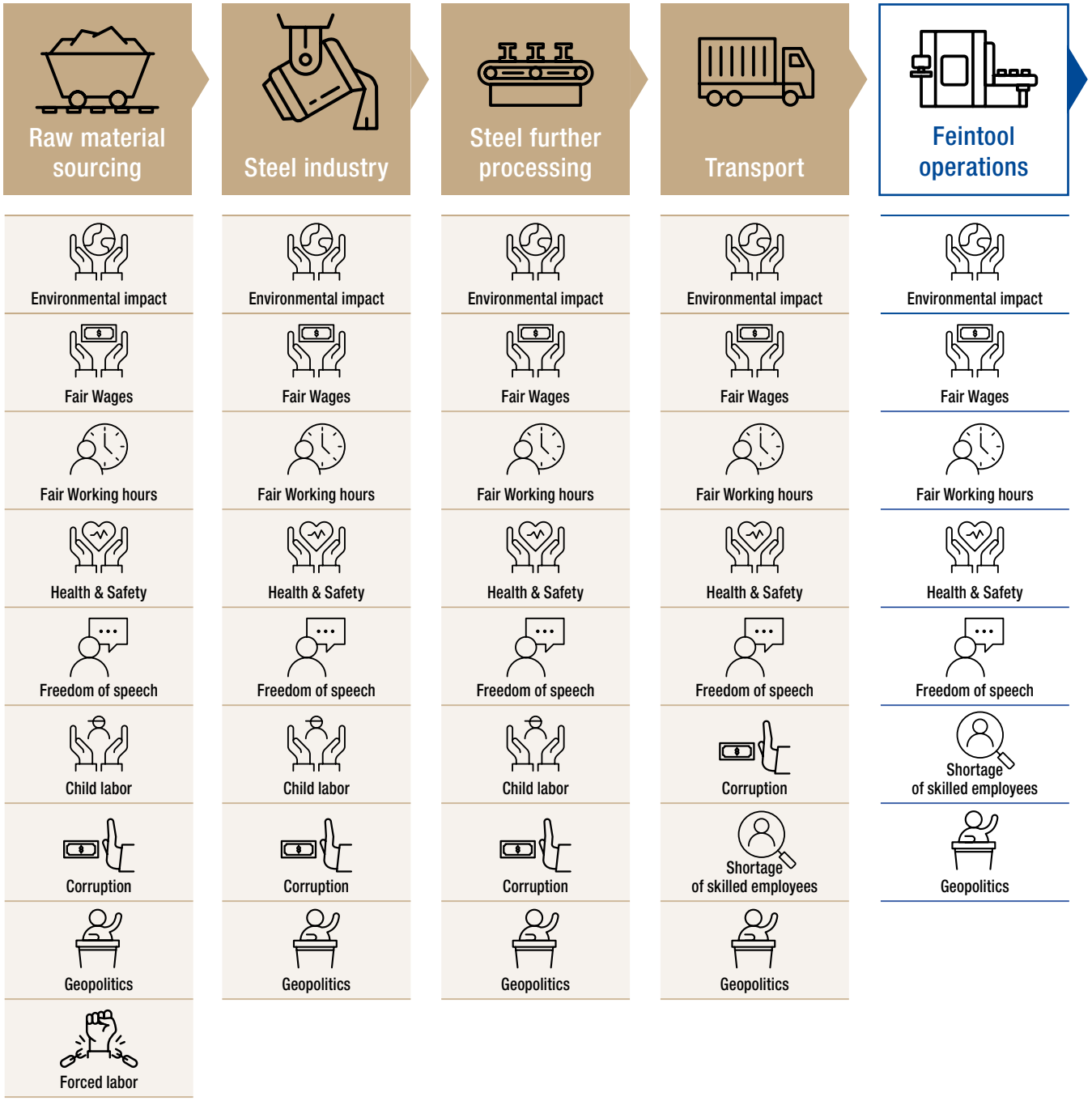
- Code of Conduct
- Employee handbook
- Occupational health and safety policies
- Human resource policy
- Environmental policy
- Social media guidelines

RISK ANALYSIS

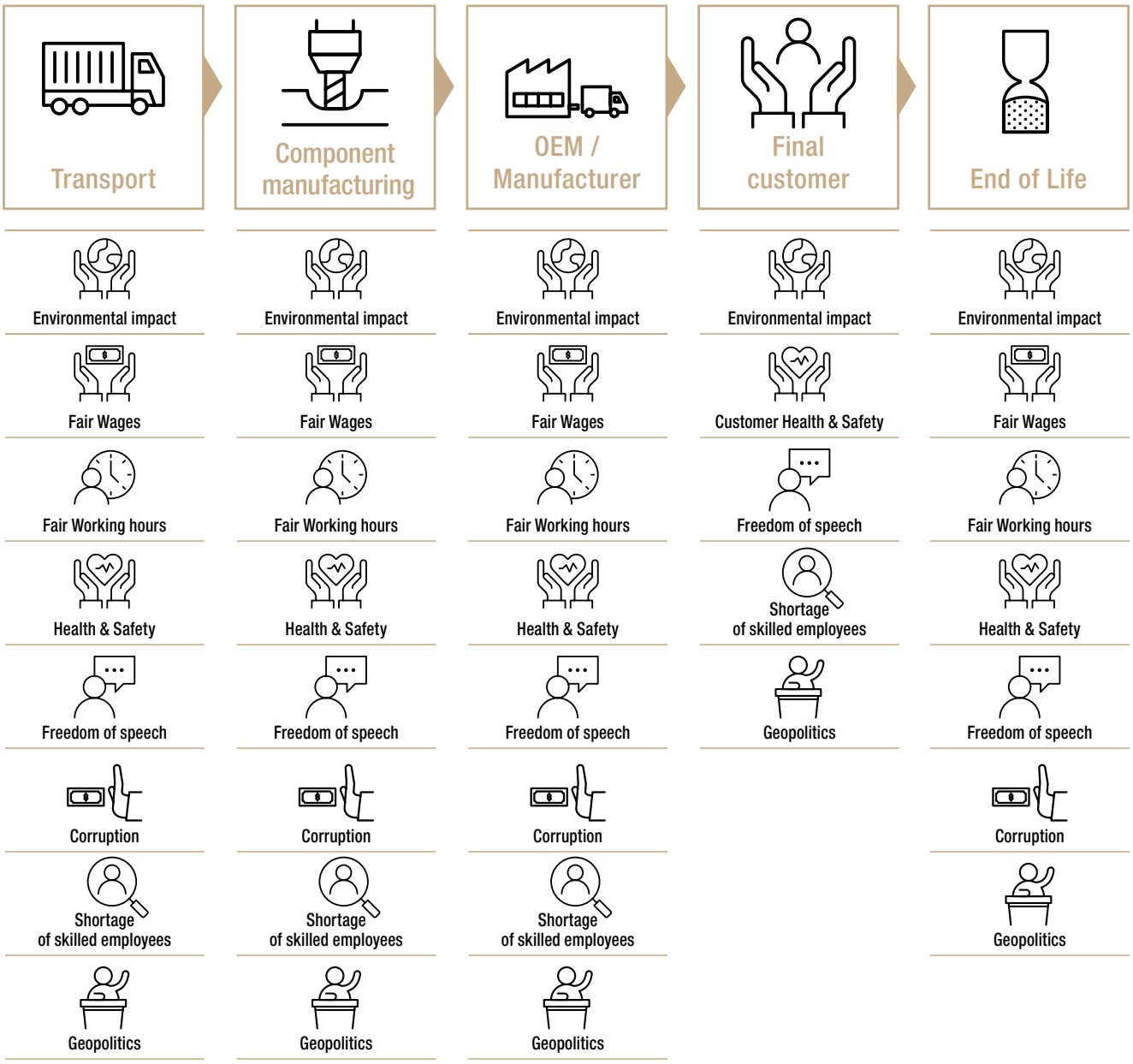
Feintool creates added value for its stakeholders in various ways (see graphic on pp. 4/5). For example, the Group is making a significant contribution to the future of mobility, energy supply, and other industries, as well as creating jobs, enhancing the skills of employees and investing CHF 4 million in research and development in 2022. With tax payments equal to CHF 3.7 million in 2022, the company also contributes to the common good.

At the same time, the Group is aware that its business activities can have negative impacts on supply chains. Since Feintool is a large consumer of steel, the company's upstream and downstream supply chains for this material have been examined for their opportunities and the risks they pose for people and the environment. The results of an initial supply chain analysis are presented schematically here and explained in detail on the following pages.

Upstream supply chain



Downstream supply chain



FROM MINING TO DISPOSAL

Feintool has traced its upstream supply chains for high-precision sheet metal components through four stages. The process starts with raw material extraction (primarily iron ore and coke), which is followed by steelmaking. Stage three involves processing the raw steel into hot-rolled, cold-rolled, and electrical strips. Finally, the processed material is distributed to Feintool Group plants.

These coils of steel make up 95 percent of Feintool's total material procurement activities. The Group's total material purchasing costs were CHF 469 million in 2022. This was considerably more than the previous year (CHF 272.1 million) due to the acquisition of the Kienle + Spiess Group. Risks and opportunities have been identified within all four stages of the upstream supply chain – and, often, they represent two sides of the same coin. This is to say that what is recognized as a risk can be converted into an opportunity for employees and environmental and climate protection, when managed properly.

All stages in the upstream supply chain involve energy consumption, emissions, the use of additional natural resources, and waste generation. Risks also present themselves in terms of working conditions, corruption, and human rights. Another important aspect is that shipping operations are currently experiencing a shortage of skilled labor. According to an IW Consult study conducted in 2022 for the German Steel Federation, political risks to the steel value chain are greatest in China and Russia. The latter is irrelevant to Feintool, as the company does not source steel from Russia. The Group also does not work with conflict minerals, which is meaningful in terms of protecting human rights.

International comparison

Feintool generally sources its materials through regional suppliers, and shipping across oceans occurs only in isolated instances. In Europe, steel coils come from suppliers in Germany, Austria, Belgium, and the Netherlands. A small percentage also comes from Italy. Plants in Europe with sheet-stamping operations generally get their steel from within Europe, although some is sourced from China and Turkey.

Plants in the US are supplied exclusively by companies with headquarters or locations within the US. The same applies to the majority of metal supply in China, with some of the region's steel coming from Germany and the Netherlands. In Japan, raw material is generally provided by the customer from local Japanese production operations.

Because a substantial proportion of Feintool's steel comes from Germany, the IW Consult study holds significance for the Group, even if the data pertains only to conditions in Germany. The study also draws on data from international organizations. Table 1 shows the performance of the top 10 countries in terms of the UN Sustainable Development Goals (SDGs) that pertain to the steel industry. Performance data from countries where Feintool suppliers are located (Germany, the US, Japan, China, and Turkey), are highlighted. Feintool has established SDGs 7, 8, 9, and 12 as the Group's priorities. Data in Table 2 focuses on child labor and the observance of labor laws.

Feintool has been respecting the full breadth of environmental and international labor standards as part of its supplier relations strategy for a considerable time now. The new Code of Conduct has been expanded and refined to reflect this commitment. In 2022, the Group also developed a specific Code for suppliers as well as a policy statement concerning the protection of human rights.

[1] Institut der deutschen Wirtschaft Köln Consult GmbH (IW Consult), Wertschöpfungskette Stahl: Nachhaltigkeit im internationalen Vergleich. Studie für die Wirtschaftsvereinigung Stahl, Köln 2022

[2] Ibid., p. 43.

Sustainability ranking by country

Rank	Country	SDG 8	SDG 12	SDG 13	SDG 16
					
1	Germany	1	1	2	1
2	Japan	2	3	1	2
3	USA	3	5	3	3
4	Korea	4	2	4	4
5	Brazil	6	4	6	7
6	China	7	6	7	6
7	Turkey	8	7	5	8
8	Russia	5	9	8	9
9	India	9	8	9	5

Rankings by individual SDG pertaining to the steel value chain

Sources: OECD (2019), UN (2020), World Bank (2021), Transparency International (2021), IEA (2021), Yale Center for Environmental Law & Policy, IW Consult statistics (2022)

Feintool is evaluated within the framework of the globally recognized SAQ (Sustainability Assessment Questionnaire) for the automotive industry. The SAQ aligns itself with the industry's international guidelines, with the goal of improving sustainability in the supply chain. Issues included in the evaluation are human rights, ecology, health and safety, business ethics, compliance, and responsible supplier management. Furthermore, Feintool has been upholding the industry's high standards in quality and process management for many years through the IATF 16949 industry standard.

Steel manufacturing and processing turn simple commodities into high-quality, specialized industrial goods for a variety of sectors. Feintool has focused on automotive applications in the analysis of the downstream supply chain of manufactured steel components (see p. 11). Five stages leading up to the end of the life cycle of a vehicle were identified as part of this. The same risks and opportunities from the upstream supply chain apply across all five stages. The Group will deepen its risk analysis in 2023.

Sustainability risk related to working conditions

Rank	Country	Child labor	Compliance with labor rights[3)]
1	Germany	1,1 %	0,74
2	Japan	3,2 %	1,43
3	USA	0,8 %	2,70
4	Korea	3,3 %	1,77
5	Russia	4,6 %	1,69
6	Brazil	3,5 %	2,91
7	China	3,1 %	4,94
8	Turkey	4,5 %	4,60
9	India	4,8 %	4,61

Country ranking based on the entire steel value chain

Sources: ICIO (2019), UN (2021), IW Consult statistics (2022)

[3] Labor Rights Index of the ILO (International Labor Organization). ICIO stands for OECD Inter-Country Input-Output (ICIO).

MITIGATING IMPACT TO PEOPLE AND THE ENVIRONMENT

The principle of sustainable corporate governance is deeply ingrained in Feintool's Strategy 2030. Feintool has been publishing an annual Sustainability Report since 2019, where the company shares the impacts of its operations on people and the environment, as well as its goals and performance in terms of ESG requirements in the capital market. Feintool again followed the guidelines set out by the most recent version of the Global Reporting Initiative (GRI 2021) in 2022. Furthermore, Feintool already considers the Corporate Sustainability Reporting Directive (CSRD) and its associated EU standards regarding non-financial reporting.

This Report is the first to depict the entire value chain, including Feintool's upstream and downstream steel supply chains (see pp. 10/14). Steel is the base material for Feintool products, making its provision the primary factor in reducing greenhouse gas emissions in the supply chain (Scope 3). Scope 3 emissions in turn constitute the Group's greatest share of greenhouse gas emissions.

The actual and potential risks and opportunities within steel supply chains have now been evaluated, although not yet conclusively. This is an important step towards a risk management approach that considers not only financial but also environmental and social aspects, with the aim of avoiding or at least mitigating negative impacts.

The list of material topics for reporting was developed in 2019 as part of a workshop conducted by Feintool's Executive Board, which took input from the stakeholders into account. Feedback from the previous report has been incorporated into the current report and the topic "Protection of customer data" was introduced in the Sustainability Report 2022. Feintool keeps an open dialog with its stakeholders, in particular, with its customers and employees, throughout the year (see p. 15).

The company's myriad ESG activities make a contribution towards achieving the UN's Sustainable Development Goals (SDGs). The focus is on the following four areas of activity: clean energy, decent work, innovation, and responsible consumption. Each topic corresponds to its respective sections.

Key reporting areas

- Business performance
- Anti-corruption
- Customer health and safety
- Energy consumption
- Emissions
- Use of materials
- Waste
- Employment conditions
- Occupational health and safety
- Vocational and advanced training
- Diversity and equal opportunity
- Nondiscrimination
- Protection of customer data

STAKEHOLDER DIALOGUE

Stakeholder	Requirements / expectations	Communication channel	Frequency	Responsibility
Shareholders	High dividends, rising market value, good image, legal compliance	- Investor relations: - General Assembly - Annual Report - Roadshow - Guided plant tours - Media relations - Public relations - E-communication	 - annual - annual - biannual - ongoing - ongoing - ongoing - ongoing	- FIH
Customers	Qualitative, innovative just-in-time products and services at a price which is in line with the market, good image in the community, legal compliance, Code of conduct Sustainability strategy/targets and evidence of implemented standards, training and key figures in the context of human rights, occupational health and safety, environmental protection, and ethics – internally as well as on supplier side.	- Key account management - Exhibitions/events/conventions - Media relations - Public relations - E-communication - Sustainability platforms such as SAQ, Ecovadis, customer-specific questionnaires	- ongoing - according to activity plan - ongoing - ongoing - ongoing - situational, sometimes annual	- Per segment and region - FIH - FIH - FIH - FIH - Usually site-related or per company
Partners/ Suppliers	Reliable partnership, continuity, prices in line with the market, good image, legal compliance	- Supplier visits and evaluations - Exhibitions	- ongoing - ongoing	- per company and - across the group
Employees	Attractive and secure workplace, good image and commitment to sustainability and future viability, market-based remuneration, opportunities for development, legal compliance	- Employee magazine - Notice board - Intranet - Management and employee events - Employee campaigns	- biannual - ongoing - ongoing - biannual - according to demand	- FIH - per company - per company - per company - per company/FIH
Legislator/ Authorities	Legal compliance, attractive tax payer, creating jobs	- Applications/Approvals - Reporting	- according to demand - according to demand	- per company/FIH - per company
Neighbors (residents, neighboring companies)	No interference (such as traffic, emissions, landscape), open culture of discussion, cooperation, legal compliance	- Media relations (local media) - E-communication - Personal contacts	- according to demand - ongoing - according to demand	- per company - FIH - per company
Society	Attractive employer and trainer in the region, good image, sustainability, legal compliance	- Media relations (local media) - Events (e.g. plant tours, open houses - Public relations (e.g. membership of local chamber of industry and commerce) - E-communication	- according to demand - according to demand - according to demand - ongoing	- per company - per company - per company/FIH - per company
Associations	Adherence to obligations	- Events - E-communication	- according to demand - ongoing	- per company - FIH

* FIH: Feintool International Holding AG

INNOVATIVE TECHNOLOGIES

Innovative ideas make all the difference. Feintool impressed its customers again in 2022 with new and optimized processes and products. The main drivers for any Feintool innovation are advancements in automation and digitalization, which holds true for both drive component manufacturing and for services related to the company's core business functions. Packaging for the shipping of Feintool goods is an example of this.

SIX CUT DOWN TO TWO

New trays save time, money, and resources

Feintool is a powerhouse when it comes to using its expertise to meet new customer demands. Take, for instance, a project by a team in Obertshausen to create new trays for packing formed parts. Although the project took some time, the result was commendable, as it checks several boxes: functionality, cost, design, and recycling.

At first, it seemed like a routine project related to parts production for a long-time customer in Belgium. However, packaging plate carrier parts for shipping turned out to be an extensive project requiring some real innovation to meet the needs of multiple stakeholders. The project demanded technical expertise, ingenuity, and, most of all, perseverance. Even with these qualities, it took several months to reach the final solution for perfectly packaging parts for shipping. The result is impressive, and the customer is thrilled. The new shipping trays are perfect for use in both manual and automatic processes, and the bottom line is that Feintool will save nearly CHF 5 million over the next ten years. The cost saving in 2022 alone was CHF 285 000. How did we get there?

The Belgian company Punch Powertrain sources various plate carrier parts from Feintool for use in dual-clutch transmissions. Six of these parts required reusable packaging for multiple rounds of shipping between Feintool and the customer, plus one layer of disposable packaging. Six separate trays resembling large dishwasher baskets were required for shipping these parts. Other wish-list items from the customer were durability to last at least 30 deliveries, specific dimensions, water resistance, and marking identification capability. And that was just for the trays – more requirements were soon to follow.

Marcello Scacciotti, Project Leader, explains, “It was clear to us from the start that there was a more practical solution than using six different trays.” After all, management of individual pieces is cumbersome and demanding. Each tray circulates through several stations, from filling to washing, and then storage. The project team of six knew that this process could be optimized, which was all the impetus they needed. In the end, they took first place in the Innovation & Technology category of the 2022 Best Achievement Awards, Feintool’s annual internal competition – and rightly so.

After all, the team powered through numerous iterations leading up to implementation, all in collaboration with the customer and external experts. This level of coordination took time, but the solution is well thought out, making it worth the effort. Today, the plate carrier parts are shipped in just two types of trays – small masterpieces, one for four types of parts, another for two further types. What is such a plus in this solution is not just the reduction to two tray styles, though. Rather, the Feintool packaging yields a whole host of advantages. For example, their durability substantially surpasses requirements, enabling more than 30 rounds of shipping. They have a water drain and a new special inlay for rust protection. They can also be manually marked on two sides or outfitted with an RFID chip for automation, identification, and parts traceability. On top of all this, the design satisfies the Japanese poka-yoke principle. This means that it is impossible to place the parts improperly in a manual process. And, last but not least, the plastic in both packaging units comes from recycled material. The aspect of environmental protection was thus also considered.

More from the Best Achievements category: Innovation & Technology

New direct cleaning (Ohrdruf, DE)

Optimized turning process (Tianjin, CN)

Vertical integration/automated cutting speeds, reaming, and processing cells (US)

“Pushing the limits”: thin-walled part-in-part retaining plates (US)

AN INTELLIGENT TECHNIQUE FOR JOINING PARTS

Feintool sets the standard for stacking in electric motors

Rotors and stators are the be-all-and-end-all of electric drives in vehicles, wind turbines and other industrial applications. Both electrolamination components are true powerhouses that demand exceptional expertise and experience to manufacture to the required standards. A unique adhesive bonding technology used for the motors' electrolamination stacks is what sets Feintool apart in this fast-growing market.

Buyers usually go straight to the motor when looking to purchase an electric car. After all, this determines efficiency and performance, both for vehicles, and for industrial applications. Customer demands and regulatory requirements are also getting steeper in terms of efficiency values and electric drive performance. These factors are influenced, to a great extent, by the properties of rotors and stators. These components, which together form the motor core, comprise stacks of individual stamped electrolamination sheets that are joined together tightly after stacking. The more stable the stack, the smaller the tolerances, the higher the temperature resistance, and the tighter the bond, the better.

This aspect of added value is indeed one of the many strengths of Feintool, as the Group welcomes new technology and is well-versed in all common stacking systems.

This means that any customer request can be met. Furthermore, Feintool exploits patented processes for glue-bonding systems to – as the name implies – bond the laminations in an optimal manner.

The results speak for themselves. The sophisticated technology, which is registered under the umbrella brand *glulock®*, offers numerous economic and technical advantages. These factors mean, that when it comes to precision and quality, Feintool is a worldwide technology leader for electric motors and generators.

Björn Böker, Head of Research and Development (R&D), Tool Making, and Environmental Management at the Sachsenheim site in Germany, says "What we accomplish with *glulock®* is unique." This is where the first prototypes got off the ground as early as 2006, at that time under the umbrella

of Kienle + Spiess, which has since been acquired by Feintool. Since then, six patents surrounding the innovative glue-bonding system have been registered.

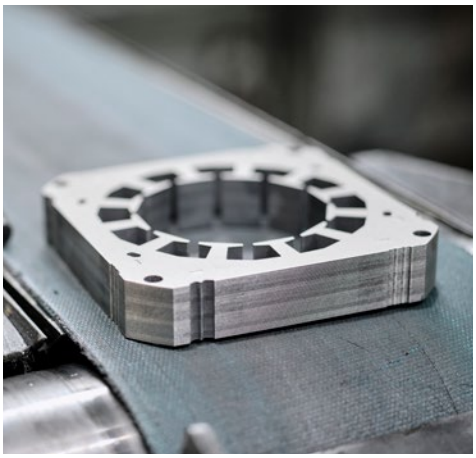
Not many companies have the deep understanding of bonding technology necessary to reach this level of quality, so what sets *glulock®* apart? "The lamination stack is created within the tool itself," explains Böker. In other words, *glulock®* bonds the rotor and stator laminations already during the punching operation using dots of adhesive – in a single pass. The result is a high-quality, efficient stack with improved electrical properties, which substantially improves the motor's performance.

The complete list of *glulock®* advantages (see box) is quite lengthy. Compared with conventional methods of glue-bonding, the process is economical, creates precise results, and improves stack tolerances (parallelism, shape accuracy, concentricity, and length tolerance) to a considerable degree. Increases in electrical capacity also enable a size reduction for the motor. However, there is yet another benefit which is highly significant.

"We can let the stacks cure at room temperature, meaning that no additional power is required for the process, which is a big plus in terms of sustainability," says Böker. With all Feintool innovations, conservation of resources is one of many metrics considered. This has been applied, for instance, in further developing the proven bonding method for *glulock® HT* (High Temperature). This development improves product durability and increases temperature resistance to 180°C.

Feintool development teams are currently working on a number of additional application processes, including chemistry in adhesives and alternative and innovative baking processes. Prototypes of the latest member of the glulock family have been almost ready for high-volume production since 2022: *glulock® MD* (Multiple Dots). This product is Feintool's answer to the trend of integrating cooling into the rotors and stators, rather than cooling motors, from the outside. Requirements here are surface bonding and an impermeable stack that is leak-tight to coolant, both of which are satisfied by *glulock® MD*.

The outlook is positive for the future. Increasing digitalization across all sectors, as well as global climate protection efforts, have markedly increased demand for electric motors of all types. Feintool produces components for the main drives of all-electric vehicles and for the accessory drives of hybrid vehicles. The Group has also cast a wide net in terms of building components for industrial applications, delivering a complete portfolio for electric motors in all dimensions with a high degree of vertical integration. "The market is growing, and on a global scale," Böker concludes.



"Our glue-bonding system is unique."

Björn Böker, Head of R&D, Tool Making, and Environmental Management at Feintool Sachsenheim in Germany

Contribution to UN Sustainable Development Goal 9

Feintool stands out through the spirit of innovation, which is ingrained in its culture. At the same time, the selective pursuit of development projects guarantees long-term competitiveness. The Group works with universities in these endeavors and has invested CHF 4.1 million into research and development in the current reporting year. Employees win "Best Achievements" each year in Sustainability, Innovation & Technology as well as Team Performance & Extra Mile.

Benefits at a glance

- Improved efficiency
- High process speed (up to 1 000 strokes per minute)
- Greater freedom of design
- Material thicknesses as low as 0.1 mm
- Improved stacking factor, over 95 %
- High stack stability
- Better shape accuracy
- Reduced stack tolerances, up to 50 %
- Noise reduction
- Improved flux density
- Increased torque
- Sustained temperature resistance up to 180°C *(glulock® HT)*
- Increased tensile strength *(glulock® HT)*
- Greater chemical resistance *(glulock® HT)*

ENVIRONMENTAL RESPONSIBILITY

The Feintool Group is on track for achieving its environmental goals. Numerous measures to cut carbon emissions in half by 2030 have been implemented, and Kienle + Spiess energy and emissions data has been incorporated into the sustainability management plan. With the exception of one site, all national companies are ISO 14001 certified as of 2022. And, as for the product side, the share of sales of low-carbon-footprint applications has grown as planned in 2022. However, reduction of emissions in the supply chain remains a challenge.

STABLE ENERGY MIX DESPITE A CRISIS
Feintool drives sustainability management forward

Awareness surrounding sustainable production has been further heightened at Feintool Group. As a result, multiple energy and efficiency measures have been implemented to save costs and resources in 2022. This has led, once again, to a reduction in Feintool's annual energy consumption and carbon emissions.

In what continues to be a challenging market environment, Feintool is implementing its sustainability management plan step by step as part of its Strategy 2030. Rising energy costs, inflation-related costs, and wage increases were, to some degree, passed on to the customer in 2022. Feintool's business activities as a whole inherently impact the environment as energy and material are consumed, and emissions and waste (including hazardous waste) are generated. To understand and minimize the impact, Feintool has systematically collected pertinent environmental performance indicator data throughout 2022 (see pp. 24/25).
Data related to energy and emissions are of greatest interest. Through the implementation of targeted measures alone, annual Group-wide energy consumption fell by around 4 200 MWh, equivalent to a saving of 550 tons of carbon emissions. The proportion of renewable energies used across the company is virtually unchanged from the previous year (see p. 24), at 29 percent of the overall energy mix and 39 percent of the electricity mix.

All companies in the Feintool Group have been working to reduce direct and indirect carbon emissions (Scope 1 and 2) by 50 percent by 2030. The Feintool Executive Board is well aware that emissions in the supply chain (Scope 3) make up the overwhelming majority of the Group's total emissions. The greatest factor here is steel supply, where the ability to effect change is limited. Despite this, the Group is taking an active role to evaluate and reduce emissions in the supply chain and, to this end, pushed ahead with a Scope 3 Project in collaboration with a long-time customer in 2022.

The new sites in Germany from the Kienle + Spiess acquisition will be transitioned to green power in 2023, despite the cost this entails. Green Power Certificates, recognized by international initiatives such as RE100, are also being purchased for both the Atsugi and Tokonome plants in Japan. Nashville and Cincinnati in the US have been preparing for an energy audit, which will begin in 2023. All over the world, Feintool has been able to conserve costs and resources by making numerous small yet effective changes over the past year. These include LED retrofits, climate control adjustments, waste heat recovery, electric forklifts, and economization of fineblanking oils and plastic intermediate plates.

Aside from one site in Germany, all national companies earned ISO 14001 certification (environmental management system) in 2022, and some plants also earned other certifications (please see separate list for details). The Feintool management system defines the key responsibilities for environmental management, including the presence of an environmental protection officer at each site to oversee certification procedures, suitable employee training, and the creation of emergency plans. The ultimate responsibility for sustainability and employee wellbeing lies with plant managers. Feintool adheres to all national and international regulatory requirements, and no violations of environmental laws or regulations were reported in 2021.

Our certifications

IATF 16949
"International Automotive Task Force":
quality assurance of suppliers in the automotive industry
ISO 9001
ISO 14001
ISO 50001
IQNet* ISO 9001
IQNet ISO 14001
IQNet ISO 50001
Environmental protection certificate (CN)

"Sicher mit System" (systematic safety) seal of approval – employers' liability insurance association for the wood and metal industry (DE)

*IQNet
Global network for certification of management systems

Contribution to UN Sustainable Development Goal 7
A secure and affordable energy supply is the foundation for achieving global climate goals. Feintool supports the development of renewable energies and fosters the use of green power.

LESS IS MORE

Creative solutions for copper parts in the e-Porsche

Experience is good, but creativity is generally better. Feintool System Parts in Ettlingen (DE) have collaborated with a customer to develop a dry machining process for copper parts for electric vehicles. The new process yields savings in lubricant, cleaning chemicals, energy and overall costs – not to mention a boost in workplace safety.

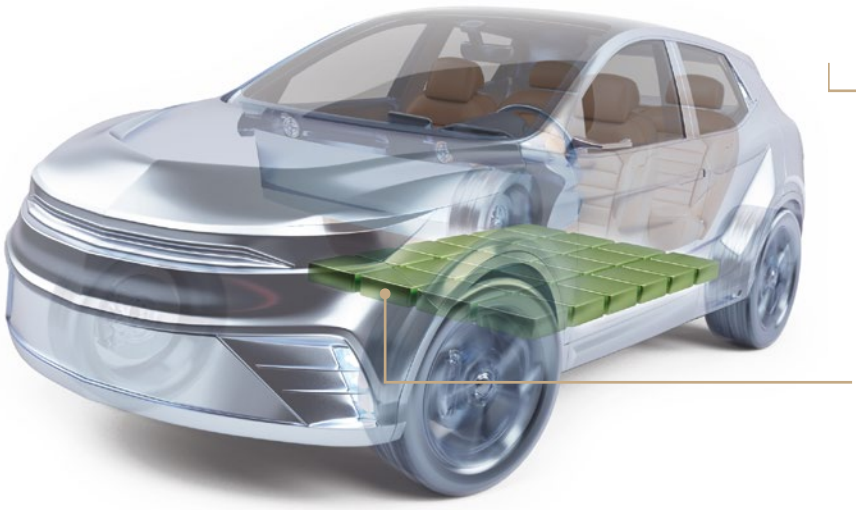
Günter Schwendemann is proud of his small yet special, 60-strong crew. The Managing Director of Feintool System Parts in Ettlingen, Germany, knows just what can be accomplished with team spirit, expertise, and drive for innovative solutions. A new project in the e-mobility sector proved to be no exception. It involved the task of producing complex copper parts for electronic components that will be installed by a Feintool customer in Porsche's Taycan electric sedan model. The project reaffirmed that the devil is always in the detail. But let's start from the beginning.

Developments in e-mobility are very dynamic, driving swift changes in customer requirements. That's why Feintool took on the brand-new task last year of producing copper busbars with a specific set of requirements for a customer. Specifically, Porsche will be using these busbars for the on-board charger in the 800 V high-voltage class of electric vehicle, but serving this performance class is no trivial feat. The production processes themselves aren't new by any means. In fact, Feintool is already highly specialized and skilled. The processes include fineblanking, machining, deburring via a mechanical grinding process, and – finally – cleaning of the parts. All of these comprise part of Feintool's proven expertise.

Fortunately, the Ettlingen site in particular is highly experienced in terms of working with copper. This metal is equal parts expensive and reactive, requiring residue from cooling lubricant and operating media from the production process to be removed regularly and thoroughly. However, despite diligent cleaning, the customer encountered problems when soldering the copper parts – problems that neither their process developer nor Feintool foresaw. In particular, the results of each solder on the production line were unstable. The cooling lubricant and the treatment agent from vibratory finishing was making the metal susceptible to chemical reactions and, in spite of using increasingly strong chemicals, the cleaning process couldn't reverse these reactions. As a result, the soldering process required more energy than ideal. This fix was only possible to a limited extent, however, due to the effects of heat on the component. Reason enough to act quickly!

"We drew on the proverbial swarm intelligence to question our old ways and find the path to new ones. In doing so, we are practicing the principle 'Creativity Before Capital.' In other words, process improvements don't have to be expensive."

Günter Schwendemann,
Managing Director of Feintool System Parts Ettlingen (DE)



Electric contacts

Günter Schwendemann, says, “it was truly a team effort,” reflecting on four months of intensive development work, with the team working “day and night” to solve the problem. Based on this work, considerable cost savings were achieved and material consumption was also reduced – all in a very short timeframe. Continuous collaboration between the team and the customer drove success throughout the project. To bring the solution to the point: Less is more.

We landed on the idea of completely eliminating cooling lubricant for machining, vibratory finishing with the treatment agent, and the cleaning processes,” says Schwendemann. “However, removing lubricant from the process was easier said than done. The initial prototype parts machined without lubricant were manually deburred. The results on the customer side were extremely positive, and energy consumption during soldering was reduced.

The next challenge was to get a part out of the machining process that was usable with no deburring. This was successful too, despite the fact that Schwendemann's small site didn’t have a large engineering department to lean on. “We ran trials using numerous program variations and parameter changes on the CNC machining center and worked with what yielded the best results,” he explains.

“In the end, we landed on the right combination of machining center tooling, cutting speeds, feed rates, and program sequences – and shavings were reduced in accordance with our requirements,” adds Schwendemann. “Process development was managed by our specialists in the tool maintenance department. The main factor was the will to solve the problem,” he concludes.

Contribution to UN Sustainable Development Goal 12

Sustainable production and sustainable consumption are part of the 2030 Feintool Strategy. Environmental management is integrated into every project that has an objective of process optimization. The purposes behind this are to reduce consumption of energy, space, and materials, to prevent negative impacts on people and the environment, and to save costs.

Best Achievements 2022 Sustainability Category

System Parts Ettlingen (DE), Project “Innovative Production of Copper Parts without Lubricant”

System Parts Lyss (CH), Project “Elimination of Chloride-Containing Oils”

Gains at a glance

Reduced use of lubricant reduces costs for machining centers	Savings: ~ 35,000 EUR
Procurement, maintenance, and disposal of cooling lubricant eliminated, eco-friendly cleaning of system	Savings: ~ 8,000 EUR
Increased efficiency with no need for vibratory finishing, cleaning or waste disposal	Savings: ~ 34,000 EUR
Potentially harmful aerosolized particles from the previous processes eliminated – improving employee satisfaction, health and safety	Invaluable
Customer savings due to low soldering temperatures, with a high degree of end-customer satisfaction	Invaluable

FACTS AND FIGURES

Integration of the newly acquired Kienle + Spiess sites in 2022 into the Feintool business has gone smoothly, which is also true for group-wide environmental management. Energy and carbon emissions data going back to 2019 has been used to incorporate the Sachsenheim and Vaihingen sites in Germany and Tokod site in Hungary into Feintool's climate goals. Despite the Group's strong growth, energy consumption is lower overall than it was in 2021, with carbon emissions unchanged. Numerous efficiency measures have contributed to this outcome and Feintool is certainly on track in terms of its climate goals. For example, 2022 revealed a 24 percent reduction in Scope 1 and 2 emissions compared with the benchmark year of 2019. Data collection has also been applied Group wide, with the exception of the Service Centers in Atsugi and Shanghai, which do not significantly impact the data.

ENERGY

Reduction in consumption despite sales increases

Feintool's total energy consumption was approximately 159 000 MWh in 2022. Despite the company's considerable growth, energy consumption has fallen 3 percent compared to the previous year. Power is still the greatest contributor to this figure at 72 percent, followed by fuel and gas and district heating.

Reduced energy consumption, alongside an increase in renewable energy in the electricity generation mix, are key factors in Feintool's sustainable development. The company also continuously implements measures that increase energy efficiency and minimize greenhouse gas emissions. Procurement of green power also makes a substantial contribution to sustainability.

Numerous environmental initiatives and energy conservation measures were implemented Group wide in 2022. These have reduced annual energy consumption by around 4 200 MWh, with more than 88 percent of this figure represented by electricity savings.

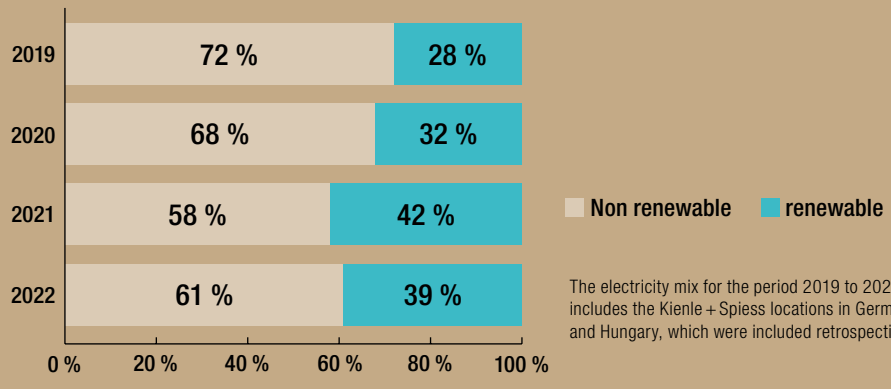
ENERGY CONSUMPTION (MWh)	**2019**	**2020**	**2021**	**2022**	**Δ Prior year**
Electricity	**120 376**	**106 916**	**116 413**	**114 898**	**-1 %**
Heating	**43 213**	**39 680**	**43 867**	**40 748**	**-7 %**
Natural gas	33 443	31 477	35 402	31 841	
Heating oil	8 795	6 692	6 668	7 237	
District heating	22	57	30	28	
Fuel	954	1 453	1 768	1 641	
Diesel	**4 339**	**3 520**	**3 395**	**3 373**	**-1 %**
Gasoline	3 496	2 717	2 509	2 317	
Liquid petroleum gas (LPG)	703	662	653	899	
Total energy consumption	140	142	233	157	
Gesamtenergieverbrauch	**167 928**	**150 116**	**163 675**	**159 019**	**-3 %**

The totals in the tables on pages 24 to 27 may not add up precisely due to numbers which have been rounded up. All data points from 2019 to 2021 were supplemented with the consumption values of the Kienle + Spiess locations in Germany and Hungary.

Focus on expansion of renewables

Following inclusion of data from the Kienle + Spiess sites, the proportion of power procured from renewable sources was more than 39 percent as of 2022. The energy crisis led to an increased use of fossil fuels for power generation in 2022, causing a slight reduction in the proportion of renewable electricity used in comparison with 2021. Feintool uses both green power and district heating as renewable sources. The goal is to continually increase the percentage of renewable energies across the group to minimize carbon emissions.

Nonrenewable vs. renewable



The electricity mix for the period 2019 to 2021 includes the Kienle + Spiess locations in Germany and Hungary, which were included retrospectively.

EMISSIONS

Steady despite increased sales

Feintool set an ambitious climate goal for itself in 2021. By 2030, emissions from internal business activities (Scope 1 and 2) should be half of what they were in 2019. The newly acquired Kienle + Spiess sites have now been incorporated into the target, and the data set has been recalculated accordingly. The first milestones have already been achieved through the use of green power and through the implementation of numerous measures to increase energy efficiency. By the end of 2022, emissions from internal operations have fallen to 24 percent below the benchmark year.

Energy savings achieved through targeted measures made a significant contribution to reductions in energy consumption in 2022. On top of this, natural gas consumption was optimized, leading to a total reduction in greenhouse gas emissions of around 550 tons of carbon dioxide equivalent (tCO_2e).

Greenhouse gas emissions held steady from 2021 to 2022 despite considerable growth in sales. Electricity procurement, at 78 percent, continued to represent the greatest source of emissions. Fuel constituted just 2 percent, and the remaining 20 percent came from heat generation. Although overall consumption decreased slightly, emissions grew marginally. This was caused, in particular, by a local deficit in the electricity mix due to an energy shortage.

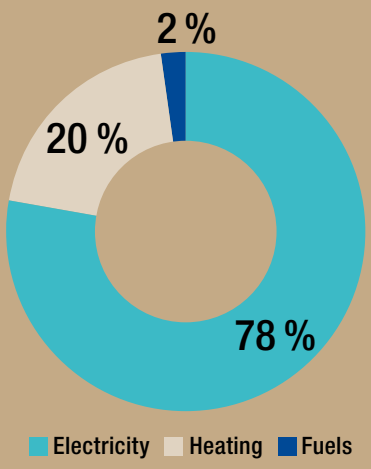
The procurement of raw materials, and steel in particular, is associated with energy consumption – resulting in a significant degree of greenhouse gas emissions in the supply chain (Scope 3). Feintool already has projects underway to address this issue by evaluating and reducing emissions across the supply chain.

GREENHOUSE GAS EMISSIONS (tCO_2e)[1]	2019	2020	2021	2022	Δ Prior year
Scope 1 (direct emissions)[2]	**10 390**	**9 203**	**9 955**	**9 376**	**-6 %**
Combustibles	9 240	8 273	9 062	8 489	
Fuels	1 150	930	893	887	
Scope 2 (indirect emissions)[3]	**46 542**	**38 737**	**33 453**	**34 070**	**2 %**
Electricity[4]	46 456	38 550	33 239	33 878	
District heating	87	187	214	192	
Total emissions (Scope 1 and 2)	**56 932**	**47 940**	**43 408**	**43 446**	**0 %**

All data points from 2019 to 2021 were supplemented with the emissions values of the Kienle + Spiess locations in Germany and Hungary.

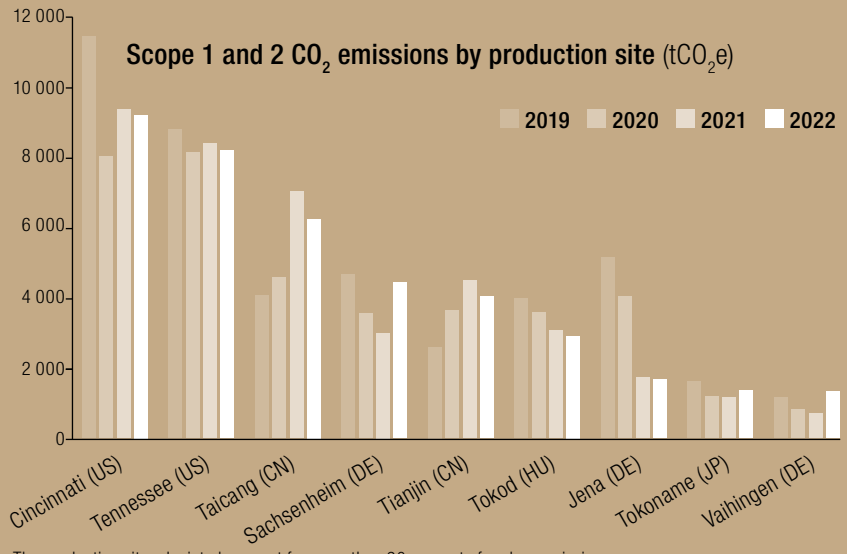
1) The company's greenhouse gas inventory was calculated pursuant to the WRI/WBCSD Greenhouse Gas Protocol standard.
2) Scope 1: Direct greenhouse gas emissions from sources owned or controlled by Feintool (fuels and combustibles used in own facilities and vehicles).
3) Scope 2: Indirect greenhouse gas emissions from sources owned or controlled by another company but occurring as a result of Feintool's activities (through the consumption of purchased electricity and district heating).
4) The greenhouse gas emissions associated with electricity consumption are reported using the 'market-based' method in accordance with the Greenhouse Gas Protocol Scope 2 standard. Using the 'location-based' method, emissions in 2022 totaled 45 110 tCO_2e (2021: 45 019 tCO_2e, 2020: 45 749 tCO_2e, 2019: 51 179 tCO_2e).

CO_2 emissions by activity (2022)



How the sites measure up

Production sites contribute over 90 percent of total Group-wide carbon emissions (Scope 1 and 2), owing to their energy-intensive processes. Jena in Germany has already achieved a significant reduction in its carbon footprint following the switch to green power. This is also the case for five other production sites in Germany, which are not depicted in the graphic due to their substantial emissions reductions. In 2023, energy audits will be conducted at the two most energy-demanding production sites in the US in order to identify suitable means for reducing carbon emissions.

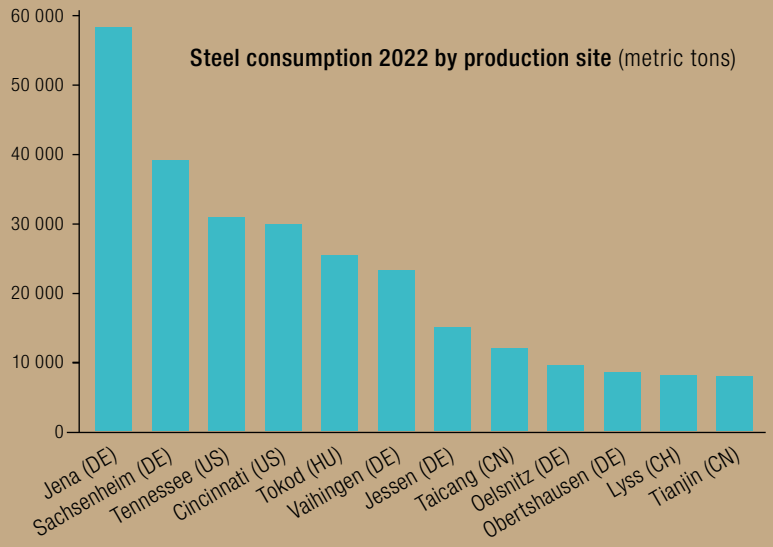


The production sites depicted account for more than 90 percent of carbon emissions.

FACTS AND FIGURES

MATERIALS

Steel makes up the lion's share
Metals are key to Feintool's production processes. Particularly when it comes to the manufacture of high-precision components, steel plays a central role, making up more than 97 percent of total material consumption. The preparation and manufacture of metals is indeed resource- and energy-intensive. To conserve both resources and energy, all metal waste from production is put back into circulation via recycling.



The production sites depicted account for 93 % of steel consumption.

The spike in total material consumption in 2022 can be explained by the incorporation of data from Kienle + Spiess (Germany and Hungary). Excluding the new sites, there was a slight decrease in the consumption of raw materials and packaging materials. The increase was disproportionately high for fineblanking and forming oils, as data has only been collected on the latter since 2022.

MATERIAL CONSUMPTION (MT)	**2019**	**2020**	**2021**	**2022**	**Δ Prior year**
Raw material	**202 413**	**176 306**	**203 971**	**291 977**	**43 %**
Steel	201 699	175 621	203 043	288 434	**42 %**
Copper (incl. brass)	161	137	177	2 569	
Aluminum	552	548	750	974	
Supplies and consumables	**757**	**1 489**	**1 795**	**2 433**	**35 %**
Fineblanking and forming oils	682	560	492	867	
Others[1]	75	929	1 304	1 565	
Packaging material	**745**	**880**	**2 463**	**2 437**	**-1 %**
Paper and cardboard	232	396	1 516	1 589	
Plastic	303	315	391	382	
Wood	211	169	557	466	
Total material consumption	**203 915**	**178 675**	**208 229**	**296 847**	**43 %**

Data related to material includes that from the sites newly acquired in 2022 (Kienle + Spiess).

1) Cooling lubricants, hydraulic oil, quenching medium, corrosion protection, solvents, inert gas, quartz sand (data collected since 2020, except quartz sand)

WASTE

Taking recycling to a new level
At Feintool, we are proud of the fact that 100 percent of metal production waste and more than 97 percent of paper and cardboard waste are sent for recycling. The high rate of special waste recycling, amounting to 89 percent in 2022, is also a success for the Group.

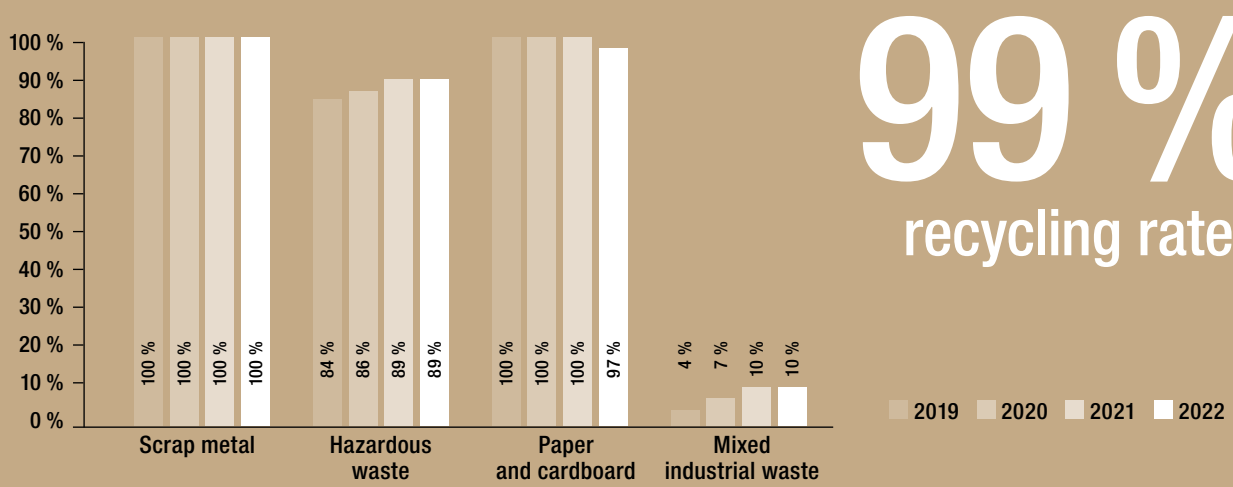
Through consistent waste management, and the use of specific recycling methods for each type of waste, Feintool has been able to achieve a Group-wide recycling rate of 99 percent. This is an excellent result bearing in mind the complexity of our waste streams, and we have ensured that the vast majority of our production waste can be reused as raw material.

The spike in total waste in 2022 is due to the incorporation of data from Kienle + Spiess (Germany, Hungary). Excluding these new sites, there were only moderate increases in metal scrap and special waste compared to 2021 and the volume of other non-hazardous waste fell slightly across the Group.

WASTE (MT)	**2019**	**2020**	**2021**	**2022**	**Δ Prior year**
Non-hazardous waste	**119 101**	**104 577**	**119 103**	**180 958**	**52 %**
Scrap metal (recycled)	117 001	102 845	117 865	179 634	**52 %**
Mixed industrial waste	1 862	1 565	1 041	1 107	
Total recycled	81	104	102	108	
Total incinerated	202	180	243	201	
Total landfilled	1 579	1 282	696	798	
Paper and cardboard	152	118	151	181	
Total recycled	152	118	151	176	
Total incinerated	0	0	0	5	
Quartz sand (landfilled)	85	48	45	36	
Hazardous waste	**5 079**	**3 905**	**4 850**	**5 612**	**16 %**
Emulsions, waste oil, and oil-contaminated waste	4 918	3 753	4 762	5 371	
Total recycled	4 164	3 224	4 273	4 804	
Total incinerated	753	529	489	450	
Total landfilled	1	0	0	118	
Sludge	161	152	88	240	
Total recycled	116	122	60	192	
Total landfilled	44	30	27	48	
Total waste	**124 180**	**108 482**	**123 952**	**186 570**	**51 %**

The data basis for the waste balance includes the data of the newly added locations (Kienle + Spiess) as of 2022.

Recycling rates by type of waste



99 %
recycling rate

The recycling rates are shown for the most important categories of waste.

AN ATTRACTIVE EMPLOYER

Talent management is a hot topic for human resources teams everywhere. The goal is to bring in employees with the right skills and competencies, and to effectively support their development. Feintool offers appealing career and training opportunities for talented applicants, thereby positioning the company as an attractive, future-oriented, global employer. The technology company has also committed to upholding fair working conditions, providing equal opportunity for all, and implementing strong occupational health and safety measures.

INCENTIVES AND DEPENDABILITY

Feintool's corporate culture is a cut above

How much freedom do employees need – and how much leadership is necessary? Answering these questions isn't always easy for employers. Feintool has clearly done a lot right: overall, employee satisfaction is high, interaction is balanced and open, advanced training is strongly supported, and all the boxes are checked in terms of workplace health and safety.

The value of a good work culture can't be overestimated. However, it cannot simply be imposed from above. Instead, it's up to the employer to establish the right working conditions. Feintool has set the stage accordingly in its new Code of Conduct. This contains numerous standards regarding occupational health and safety, interaction with business partners, handling of natural resources and environmental protection, and fair working conditions – including human rights. The Code also includes guidelines for business ethics, along with detailed instructions for implementing, overseeing and managing the standards. The Code gives all employees, including the leadership team, clear orientation for their day-to-day activities.

But the corporate culture is about more than acting with integrity – it also includes incentives, such as upward mobility, appropriate working hours and benefits. At Feintool, the focus is on reaching the best possible consensus based on national labor laws, delivering a win-win solution for all involved. For instance, part-time leadership positions are available where such an arrangement is suitable, especially for women. But what happens when something doesn't go quite right? In these cases, Feintool is committed to providing equal opportunities to all employees and has a zero-tolerance policy for all forms of discrimination. To this end, Feintool employees and external personnel can report potential violations of the Code anonymously to an independent body, at any time. Every single complaint is investigated, which strengthens trust across the Feintool organization.

Luana Kinner, Chief Human Resources Officer (CHRO) at Feintool, expounds the balanced teamwork and culture of openness that shape daily operations at the company. There is plenty of room, she explains, for employees to raise their own ideas. For instance, the global talent development program for gifted youth involves a creative project to spark participation and innovation (see pp. 30/31).

"You can really be yourself at Feintool," says Luana Kinner, echoing the tone of many employee responses to the most recent Feintool employee survey (2021). Nearly 70 percent of respondents reported being satisfied at Feintool and even more (77 percent), rated the company highly in terms of occupational safety across all plants.

This aspect of the company's operations will soon be standardized to an even greater extent internationally. Specifically, all Feintool sites will have the internationally recognized ISO 45001 certification by 2028. This entails having a safe and ergonomic work environment across production, service, and administration.

The goal is to avoid work-related accidents and illnesses to the greatest extent possible through prevention. Employees need to use their technical knowledge on-site to achieve this and receive annual training for this purpose. "All of these activities create strong ties to the company among our employees. This is also how we are countering the increasing shortage of executives and skilled workers," explains the CHRO.

Overview of measures (HR, health and safety)

- Global talent development program
- Internal recruitment of young talent
- Intensive vocational and advanced training
- Equal treatment and opportunities
- Group-wide ISO certification in occupational health and safety by 2028
- Effective waste management
- Elimination of hazardous substances

SUCCESS WITH A GLOBAL APPROACH

30 have graduated from a new development program

In spring 2022, the FEINtalent global development program was inaugurated, opening up new opportunities for 30 participants from the US, Asia, and Europe. The program fosters personal development, facilitates networking within the company, and promotes a strong connection between committed employees and Feintool. The feedback received a year later has been positive from every angle.

What makes a Feintool Talent

- Inquisitiveness
- A visionary approach
- Motivation
- Self-assurance
- High aspirations
- Agility
- Independence

The new program, FEINtalent, is structured into modules, offering workshops, training and projects based on both online and classroom lectures and events. Participants from four regions: Europe, China, Japan, and the US, all work together and gather virtually for global online events. The program has two key objectives. First, it aims to instill social and methodological competencies such as team leadership and time management. Secondly, it promotes the transfer of knowledge among the different areas of the company under the motto “How Feintool Works.”

The program works with motivated, high-performing employees who have been working at Feintool for five to ten years to improve mutual understanding across departments and continents. The goal is for each person to reach their full potential at the company. Feintool is a market leader in fineblanking, forming, and electrolamination stamping, but this new program is also helping to position the company as an attractive employer, and somewhere that actively encourages the development of sought-after specialists and managers.

Daniel Horst, toolmaking engineer and project leader at the production site for forming in Nashville (USA), has benefitted from participating in the FEINtalent program. In particular, he is now more familiar with the processes and activities of other departments in the Group – as well as having learned directly from the Group’s management team. After finishing an apprenticeship at Feintool System Parts in Ohrdruf (DE), Daniel moved to the US nine years ago. Access to senior managers and their insights via the FEINtalent program is contributing to his professional development. In his own words, “You grow by getting out of your comfort zone.”

“Excellence doesn’t happen by luck, but rather through the deliberate design of a company’s culture to place people, with their abilities and their potential, at the center.”

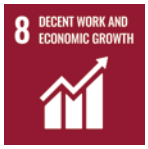
Luana Kinner, Chief Human Resources Officer

Participants in FEINtalent, 29 males and one female, were unanimously positive about their exchanges with mentors, managers, and the CEO. Feedback was similar in regard to FEINtalent workshops, special training sessions, joint trade show participation, and site tours. In terms of networking, participants were able to make new connections and take advantage of colleagues’ expertise. This was facilitated by group projects, which were brought into the curriculum by the managers in the Human Resources and Business Development teams. One project focused on e-mobility, while another was related to Feintool Group visions for 2035.

Lars Schröder, from Germany, already a FEINtalent at 24, has a clear view of what proper teamwork looks like. “When working as a group, it’s important that a consensus is reached when it comes to task management. It’s necessary to clearly determine who will do what, and by when, so meetings can proceed as planned without going over time.”

The groups presented their results, which was an exciting moment for the Feintool Group as outcomes from the program, including new ideas and innovations, will be implemented during 2023. Program participants will be working on practical implementation of new strategies, and will contribute with creativity and problem-solving techniques. Another “How Feintool Works” module is currently under development. Furthermore, Feintool offers participants optional mentorship training for those who wish to give back by guiding future generations of participants.

Luana Kinner, Chief Human Resources Officer and lead planner of the now global talent management program, shares a positive conclusion: “The participants are wholly committed and show how we – in coordination with regional management teams and HR leadership – have built an attractive program. In particular, our focus on giving participants a holistic appreciation of Feintool is working and will support everyday teamwork and collaboration.” FEINtalent is part of a comprehensive HR concept at Feintool.



Contribution to UN Sustainable Development Goal 8

The Feintool Group offers safe and fair employment around the world. Site leaders are responsible for upholding excellent working conditions, providing equal opportunities, and fostering teamwork. Foundations for this are regulatory guidelines, the new Code of Conduct, effective human resources management, and the Group’s employee handbook. Compensation commensurate with performance, a bonus system, and equity in salary are non-negotiable. Workers from temporary agencies are paid in accordance with relevant local laws and are included in all matters of occupational health and safety.

FACTS AND FIGURES

Continuing education, a safe and healthy workplace, international teamwork and, most of all, a culture of mutual respect – these are the central elements of Feintool's personnel policy. The company aspires to attract talented managers and skilled workers, with the ultimate goal of long-term employment. Key figures regarding the workforce refer to the sites covered in the section on environmental management (see p. 24). All data is inclusive of employees from the former Kienle + Spiess Group.

DIVERSITY

Teamwork and the Feintool spirit

As a company with employees on three continents, Feintool places great emphasis on respectful teamwork between people of different nationalities, ages, genders, backgrounds, and beliefs. The most important guideline for internal interactions is the Feintool Code of Conduct, which was revised in 2022.

The Feintool Group headcount has grown by around 36 percent since last year, following the new acquisition. More than three quarters of the 3 191 Feintool employees represented in the dataset work in Europe. The total proportion of female employees was 19 percent in 2022, again constituting a rise from the previous year. This is a commendable development, and one that we hope will continue. Feintool takes active measures towards achieving diversity within the workforce. For instance, the company works to inspire female students to pursue vocational training. A new development program just for women is also in the works.

Workforce composition 2022

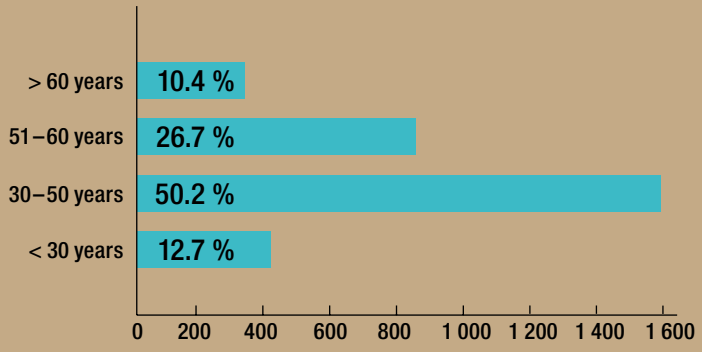
	Total	Male	Female
By region	**3 191**	**2 582**	**610**
Europe	2 409	1 952	457
USA	416	338	78
Asia	367	292	75
By employment contract	**3 191**	**2 582**	**610**
Permanent	3 126	2 534	592
Temporary	65	48	17
By type of employment	**3 191**	**2 582**	**610**
Full-time	3 056	2 536	520
Part-time	135	46	90

These figures reflect the average number of employees in 2022 (i.e., the recorded dataset), not the number of employees on the reporting date of Dec. 31, 2022. As a result, these figures may differ from the employee data published elsewhere. In addition, Feintool had an average of 100 vocational trainees and interns as well as 353 temporary workers on its payroll, none of whom are included in these figures. The totals in the table may not add up precisely due to rounding effects.

Employee retention and talent management

Feintool has taken measures to become an attractive place to work at all levels of the company. The expertise of experienced employees is highly valued, as demonstrated by the company's age distribution. We also work to recruit young talent, with the intention of retaining them as employees for the long-term. A big focus in 2022 was the development of a corresponding offering in talent management (see pp. 30/31). The potential at Feintool is exceptional. The next continuing education program will begin in the current financial year of 2023, this time for management.

Employees by age group (2022)

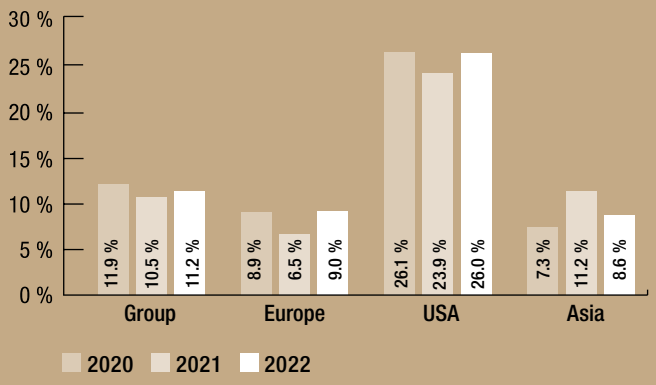


TURNOVER

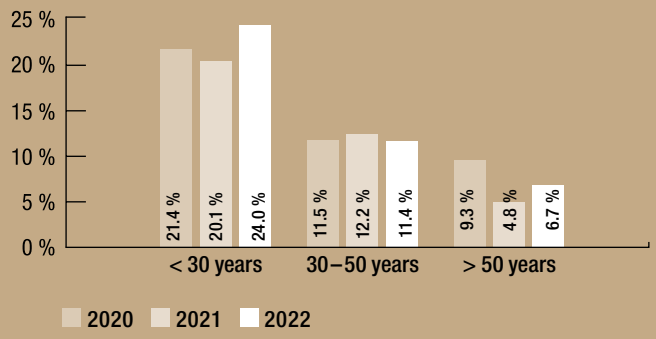
Consistent rates despite strong competition
The employee turnover rate is a key parameter monitored by Feintool, as voluntary employee departures are a reflection of employee satisfaction. Undesired departures should, of course, be prevented, as should the poaching of highly qualified employees by competitors.

The turnover increased just slightly (by 0.7 percent) in comparison with the previous year. The 2022 rate was somewhat higher than one year prior in Europe and the US, whereas Asia's rate declined. Changes in turnover were more intense among the under-30s and the over-50s, with the number of departures declining among older employees. More than 53 percent of employees are represented by a union or are subject to collective bargaining agreements.

Turnover overall and by region



Turnover by age group



Employee turnover is calculated on the basis of employees with permanent employment ontracts and does not include employees leaving due to retirement.

OCCUPATIONAL HEALTH AND SAFETY

Smooth corporate integration
Accident prevention and continuous improvement in occupational health and safety are already core components of the Group-wide Feintool management system. Even so, the company plans to expand the scope further in the coming years. All sites are to be certified in accordance with the internationally recognized ISO 45001 standard by 2028. Integration of the new sites following acquisition of the former Kienle + Spiess Group in 2022 also went smoothly in terms of occupational health and safety. The new national company in Tokod, Hungary, is already ISO 45001 certified.

The number of workplace accidents grew in 2022, particularly due to the initial incorporation of data from the new sites in Germany and Hungary. The Lost Time Injury Frequency Rate, which considers incidents resulting in at least one lost workday alongside hours worked, declined only slightly if the new sites are not considered.

The Accident Severity Rate increased slightly, both with and without data from the former Kienle + Spiess Group. The reason for this lies in the definition of the Accident Severity Rate, which calculates workdays lost due to accidents, per hours worked. So, while the number of workdays lost due to accidents was greater than in 2021, the number of hours worked in the denominator did not increase proportionately with Kienle + Spiess Group's data, or decrease proportionately without it.

Key figures related to occupational safety	2020	2021	2022
Number of workplace accidents	118	134	192
Lost Time Injury Frequency Rate (LTIFR)[1]	3.2	3.6	3.0
Number of lost workdays due to accidents	1 240	903	1 282
Accident severity rate (ASR)[2]	63.3	41.4	46.9
Number of serious workplace accidents[3]	-	1	-
Number of fatalities from workplace accidents	-	-	-

1) Lost Time Injury Frequency Rate (LTIFR): Number of accidents that resulted in an employee's inability to work the next full workday per 200 000 hours worked. This indicator has replaced the Accident Frequency Rate (AFR), which was published through 2020, due to it being less ambiguous and therefore easier to compare.
2) Accident Severity Rate (ASR): number of lost workdays due to accidents per 200 000 hours worked
3) At least 180 lost workdays per case.

CONTENT INDEX

The index contains references to the Global Reporting Initiative standards (GRI 1: Foundation 2021). The abbreviation AR stands for Feintool Annual Report 2022, SR 21 for the Sustainability Report of the prior year. Page references without any additional information refer to the present Feintool Sustainability Report 2022.

GRI Reference and Disclosure		Page no./Information
GRI 2:	General Disclosures 2021	
2-1	Organizational details	pp. 2/3; AR p. 26
2-2	Entities included in the organization's sustainability reporting	p. 3; AR p. 29
2-3	Reporting period: 01.01.2022 to 31.12.2022; reporting frequency: annual; contact: Karin Labhart, Head of Corporate Communications, Feintool	
2-4	Restatements of information	Inclusion of Kienle+Spiess Group; pp. 24/25
2-5	External assurance	none
2-6	Activities, value chain and other business relationships	pp. 2, 4/5, 10-13
2-7	Employees	pp. 32/33; AR p. 19
2-8	Workers who are not employees	pp. 32/33
2-9	Governance structure and composition	AR pp. 90, 94-96, 100-102
2-10	Nomination and selection of the highest governance body	AR p. 96
2-11	Chair of the highest governance body	AR p. 94
2-12	Role of the highest governance body in overseeing the management of impacts	p. 9; AR pp. 98/99, 106/107
2-13	Delegation of responsibility for managing impacts	p. 9; AR pp. 98/99, 106/107
2-14	Role of the highest governance body in sustainability reporting	p. 9
2-15	Conflicts of interest	AR pp. 94-97, 100/101
2-16	Communication of critical concerns	p. 9; AR pp. 97, 99
2-17	Collective knowledge of the highest governance body	AR pp. 94-96
2-18	Evaluation of the performance of the highest governance body	-
2-19	Remuneration policies	AR pp. 98, 108-110
2-20	Process to determine remuneration	AR pp. 102, 108-110
2-21	Annual total compensation ratio	-
2-22	Statement on sustainable development strategy	p. 9; SR 21 p. 10
2-23	Policy commitments	p. 9; Code of Conduct (feintool.com)
2-24	Embedding policy commitments	p. 9; Code of Conduct (feintool.com) SR 21 p. 9
2-25	Processes to remediate negative impacts	pp. 9, 12-13; AR pp. 106/107; SR 21 p. 9
2-26	Mechanisms for seeking advice and raising concerns	Code of Conduct (feintool.com); SR 21 p. 9
2-27	Compliance with laws and regulations	p. 9; Code of Conduct (feintool.com); AR p. 26
2-28	Membership associations	feintool.com
2-29	Approach to stakeholder engagement	p. 15
2-30	Collective bargaining agreements	p. 33

GRI Reference and Disclosure		Page no./Information
GRI 3:	**Material Topics 2021**	
3-1	Process to determine material topics	p. 14
3-2	List of material topics	p. 14
GRI 201:	**Economic Performance 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	AR pp. 28, 90-93, 106/107
201-1	Direct economic value generated and distributed	AR pp. 13-18, 20/21
GRI 205:	**Anti-corruption 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	Code of Conduct (feintool.com)
205-1; -2; -3	Assessments, training, confirmed incidents and measures taken	p. 9; Code of Conduct (feintool.com)
GRI 301:	**Materials 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 21; SR 21 p. 22
301-1	Materials used by weight or volume	p. 26
GRI 302:	**Energy 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 21; SR 21 p. 22
302-1	Energy consumption within the organization	p. 24
GRI 305:	**Emissions 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 21; SR 21 p. 22
305-1	Direct (Scope 1) GHG emissions	p. 25
305-2	Energy indirect (Scope 2) GHG emissions	p. 25
GRI 306:	**Waste 2020**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 21; SR 21 p. 22
306-1; -2	Topic management disclosures	p. 21; SR 21 p. 22
306-3	Waste generated	p. 27
306-4	Waste diverted from disposal	p. 27
306-5	Waste directed to disposal	p. 27
GRI 401:	**Employment 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 29; SR 21 pp. 29/30
401-1	New employee hires and employee turnover	pp. 32/33
GRI 403:	**Occupational Health and Safety 2018**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 8; SR 21 p. 30
403-1 to 403-7	Topic management disclosures	pp. 8, 33; SR 21 p. 30
403-8	Workers covered by an occupational health and safety management system	pp. 8, 33
403-9	Work-related injuries	p. 33
GRI 404:	**Training and Education 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 29; SR 21 pp. 29/30
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GRI 405:	**Diversity and Equal Opportunity 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 32
405-1	Diversity of governance bodies and employees	p. 32
GRI 406:	**Non-discrimination 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 9; Code of Conduct (feintool.com)
406-1	Incidents of discrimination and corrective actions taken	no incidents
GRI 416:	**Customer Health and Safety 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 9; Code of Conduct (feintool.com)
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	no incidents
GRI 418:	**Customer Privacy 2016**	
GRI 3:	Material Topics 2021, 3-3 Management of material topics	p. 9; Code of Conduct (feintool.com)
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	p. 9

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