



2022
Sustainability
Report



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Foreword by the CEO

Fiscal year 2022 was another growth year for Giesecke+Devrient, which saw the company successfully strengthening and consolidating its market position. We reached groundbreaking new milestones in several areas that will enable us to expand our portfolio and meet future demands. This progress is particularly noteworthy given the huge changes that characterized the past fiscal year. It represents an outstanding performance by the entire G+D team worldwide. At the same time, however, we experienced significant geopolitical and economic turmoil across nearly all sectors and institutions last year, due in particular to Russia's invasion of Ukraine. All of us around the world have become used to dealing with crises. We are facing geopolitical and economic challenges for the third year in a row. These will continue to impact our daily life as individuals and also affect G+D as a global enterprise.

While tackling these crises, we must never lose our focus on ongoing climate change – one of the greatest threats to the environment and humanity. As a company, we are very aware of our responsibility to society and the environment. We are therefore stepping up our efforts to introduce sustainable business practices, which we regard as key to a successful future, and continuing to drive forward our transformation into a more sustainable company. It is our firm belief that ecologically, socially, and economically sustainable business strategies and processes are the right way to successfully meet these challenges.

In 2021, G+D established a Corporate Sustainability team, which ensures that our sustainability strategy is applied Group-wide and also continually refines it in close collaboration with the individual business units. In addition, we have established an ESG Committee at Group level, chaired by me, which has an oversight function. Comprising senior representatives from all of G+D's business sectors, it monitors the ongoing development and implementation of our sustainability strategy.

Together, we have set ourselves a challenging target vision: We want to lead the way on ecological and social issues within our markets and help to create a healthy environment and a livable society by doing business responsibly. This goal is underpinned by transparent and clearly formulated targets for each of the three sustainability aspects: environmental, social, and governance (ESG). Our intention is to make a real impact in this area, and we are committed to achieving tangible results. Through our strategy and actions, we also support the principles and goals of the United Nations Global Compact.



We regard innovation and technology as key levers for ensuring the sustainability and transformation of our entire Group. Sustainability and economic efficiency go hand in hand – it is not an either/or situation. The aim must be to make progress in a sustainable manner. We want to achieve more (sustainability and added value) with less (use of raw materials, energy, other materials). We can have an impact in our day-to-day operations through the way we design our production processes, organize our work, and develop our portfolio to include more sustainable products and solutions. Sustainability is a shared endeavor. The necessary improvements can only be achieved through cooperation across the entire ecosystem of the business world, beyond borders and industries. We are therefore continually optimizing our relationships with value-adding partners with regard to sustainability.

For me personally, this report shows in a very special way that we, as a company, are actively taking on social responsibility. It is designed to transparently report on our strategies, progress, and goals, while also documenting our specific activities. Achieving greater sustainability must always be seen as a process or journey. We have made good headway in some areas but are falling short of our expectations in others. One thing is certain: the entire management team of the G+D Group and our workforce of over 12,500 people worldwide stand united and determined behind our defined goals and are working tirelessly and with huge commitment to achieve them.

We can achieve our shared objectives only as a team, and only if we all think and act in a sustainable manner.

Dr. Ralf Wintergerst

About G+D

Giesecke+Devrient (G+D) is a global security technology group headquartered in Munich, Germany.

G+D specializes in security technology that creates confidence. As a trusted partner to customers with extremely demanding requirements, G+D safeguards essential assets around the world. We develop customized technology in four core areas: payment, connectivity, identities, and digital infrastructures. Parent company G+D GmbH manages the overall direction of the G+D Group and actively supports strategic development of the individual business sectors. It handles tasks that are of strategic importance for the whole Group. Sustainability is a central objective at G+D, with the Corporate Sustainability function playing a key role. Together with HR and Compliance, it has responsibility for ESG issues managed at the Group level.



Giesecke+Devrient Group

EUR millions	2022	2021	Change in %
Sales	2,527.1	2,376.6	6.3
Capital expenditure	175.8	118.2	48.7
Research and development	132.7	118.4	12.1
EBITDA	296.9	305.4	-2.8
EBIT	168.2	165.9	1.4
Net income	80.6	85.2	-5.4
Employees as of Dec. 31	12,594	11,768	7.0

Through our capabilities in our four core business segments of payment, connectivity, identities, and digital infrastructures, we make an important contribution towards creating a well-functioning society.

The four core areas encapsulate the G+D business portfolio across the Group. G+D GmbH operates as a holding company comprising the legally independent business sectors G+D Currency Technology, G+D Mobile Security, Veridos, and secunet. G+D employs 12,594 people across 33 countries.

Payment

G+D is a global market leader in products and solutions for secure payment. With its holistic portfolio for official currencies and electronic and digital payment solutions, G+D occupies a unique position in the payment ecosystem.

- Within this core area, the **G+D Currency Technology** business sector provides solutions for end-to-end secure cash management. This includes the Banknote Solutions division, which produces and distributes banknote paper, banknotes, and high-tech security features. The portfolio of the Currency Management Solutions division includes banknote processing systems of different sizes and complete cash center solutions.
- Complementing this portfolio for physical currencies, subsidiary **G+D advance52** provides comprehensive solutions for developing and operating central bank digital currencies (CBDCs).
- As part of the **G+D Mobile Security** business sector, the Secure Transactions + Services division covers all business relating to smartcards and secure electronic and digital payment in the banking sector. It also provides solutions for secure access and identity management in the healthcare sector and for smart mobility as well as for companies, including associated services, such as production, personalization, and product development.

More than
500m
consumers receive their payment cards by G+D each year

To date, we have designed and printed
160bn
banknotes for countries around the world

Globally we have delivered more than
67k
cash processing machines

We are working on CBDC projects on
4
different continents, including pilot projects in Thailand and Ghana

1bn
transactions per year enabled by G+D's tokenization solutions

700+
commercial banks trust our payment solutions globally

CBDC: central bank digital currency

Connectivity

Billions of devices are already connected to the Internet of Things (IoT) – with more being added every second. As a technology leader with extensive expertise in secure connectivity, G+D is both partner and pioneer when it comes to tackling all the challenges around the IoT.

The Trusted Connected Devices division is part of **G+D Mobile Security** and enables secure connections to mobile networks and the IoT. It covers SIM cards, embedded SIMs, SIM management services, eSIM management including secure operating systems, and solutions for enterprise IoT.

More than
500m

eSIM-enabled devices supported and managed by G+D

8 of 10

leading car manufacturers rely on our eSIM technologies

Active management of

3bn

SIM cards using G+D systems

SIM: Subscriber Identity Module

Identities

Secure personal identities enable access to government services, education, financial products, and mobility. They are fundamental access points for modern life in an interconnected world. We provide governments worldwide with technologies that enable secure and efficient identity management while at the same time creating seamless and convenient identification and authentication processes for citizens.

Through **Veridos**, a joint venture with state-owned Bundesdruckerei, G+D provides innovative solutions for authentication and verification of people and objects. These include highly secure physical and digital documents, border control and identification systems.

Veridos provides Bangladesh, the eighth largest country in the world by population, with a production site to annually produce

5m

electronic passports

Since 2013, more than

100m

state-of-the-art ID cards produced by G+D and Veridos have been made available for Mexico's citizens

More than

100

countries worldwide are clients of Veridos

Digital infrastructures

Digitalization and connectivity are growing exponentially – and with them the number and complexity of cyberattacks. G+D enables digital sovereignty for governments, businesses, and the wider society.

Listed subsidiary **secunet Security Networks AG** is an IT security partner to the Federal Republic of Germany and Europe's leading provider of high-quality cyber security solutions. It offers public authorities and industrial enterprises an extensive portfolio of products and consulting services for the protection of data and infrastructures as well as for the transmission, storage, and processing of information. This includes encryption technology up to the highest security level.

More than

180k

SINA® installations
in 25 countries

secunet is the market leader in
the telematics infrastructure
with

85k

doctor' offices connected via
the secunet "konnektor"

Annual sales at secunet tripled
between 2015 and 2022 to

345m €

SINA®: Secure Inter-Network Architecture

Sustainable business practices create value for the company and for society. We are continuously strengthening our commitment and working hard on the sustainability transformation of our products and solutions.

Examples of the transformation of our product portfolio

Green banknote



G+D's green product solution for banknotes. Reduction of the ecological footprint through the use of certified natural fibers, minimal plastic used, and optimized manufacturing processes.

Convego® Beyond payment cards



Payment cards made from 100 % sustainable materials combined with eco-innovative services and partnerships. All virgin plastic to be replaced with sustainable materials by 2030 latest (Pledge 2030).

eSIM



G+D's environmentally friendly connectivity solution with 46 % less CO₂ than a conventional SIM.



Our Sustainability Management

We are living in a period of major societal and ecological challenges. The climate crisis, the after-effects of the Covid-19 pandemic, and the Russia–Ukraine war are just some of the issues we faced in 2022 and will continue to face going forward. We are tackling these growing challenges with the aid of systematic sustainability management.

Climate change has long been a reality; its effects on the environment and society are being felt all over the world. In addition to catastrophic flooding, soaring temperatures, and the loss of biodiversity, we are also witnessing increasing social inequity and continuing refugee flows into the Global North. In addition, Russia's war of aggression in Ukraine is having an impact on the global economy and energy supplies, thus boosting demand for fossil fuels and accelerating climate change. Companies are facing huge challenges and uncertainty about their future due to gas and oil shortages, the associated higher costs, and rising electricity prices.



At the same time, there are various initiatives under way at the global, European, and national level aimed at improving sustainability and driving forward the fight against climate change.

In November 2022, the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change took place in Egypt. COP27 concluded with a decision to establish a fund to compensate vulnerable nations for loss and damage, but the participating countries made little headway on the urgent issue of boosting ambitions to mitigate climate change.

The new EU taxonomy and sustainability reporting rules will have a particular impact on businesses in the European Union. The taxonomy provides companies, investors, and policy makers with a list of economic activities that are considered environmentally sustainable. It thus contributes towards boosting sustainable investment and implementation of the EU's Green Deal. In the same vein, the Corporate Sustainability Reporting Directive (CSRD) will standardize and expand the reporting obligations of European companies. Standardization will enable better comparability, while the importance of sustainability reporting will be enhanced by giving it the same weight as financial reporting.

In Germany, the Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) is helping to ensure that companies create socially and environmentally responsible supply chains, which is a significant challenge for many businesses, given the ongoing fragility of global supply chains.

The various initiatives and increased regulation underline the fact that companies are key actors when it comes to creating a sustainable future. G+D is keenly aware of its responsibility and acts accordingly. On an organizational level, our commitment is demonstrated through our governance structures in the G+D sustainability organization and by our strategic plan for sustainability transformation of the entire Group.

Sustainability at G+D

As a forward-looking technology company that is committed to creating confidence worldwide, G+D believes that sustainable conduct creates value for society and for the company. We are therefore continuously strengthening our commitment and transforming our business. Importantly, we view the changes facing us as an opportunity to address problems and offer solutions. We are pursuing this goal in part through our support for the UN Global Compact, the world's largest initiative for sustainable and responsible governance.

As a global security technology provider, we are a trusted partner to international customers with extremely demanding requirements. Our solutions safeguard essential assets around the world. We develop customized solutions in our four core areas of payment, connectivity, identities, and digital infrastructures that help to ensure key systems and infrastructures around the world remain stable, fully operational, and accessible to people, even in times of crisis.

By making our product and solutions portfolio more sustainable, we are enabling our customers to achieve their sustainability goals and offer their own customers sustainable products in the field of payment, connectivity, identities, and digital infrastructures.

Clear structures and responsibilities for more sustainability

Sustainability is a central objective at G+D. Our strategy is based on the following three pillars:

- Environmental
- Social
- Governance

These pillars are referred to collectively as ESG criteria.

The **ESG Committee** set up in 2021 is the overarching steering group for sustainability management throughout the entire organization. Under the leadership of Group CEO Dr. Ralf Wintergerst, the committee defines the cornerstones of the ESG strategy. It has the right to veto business decisions whenever they conflict with our sustainable development goals. The ESG Committee is a cross-functional panel comprising management representatives from all G+D business sectors. As such, it is a crucial driver of the operational implementation of the sustainability strategy and fundamental to achieving the defined goals of all G+D Group business units. The results of the various measures defined in the strategy are aggregated at the Group level, continuously assessed, and analyzed by the committee.

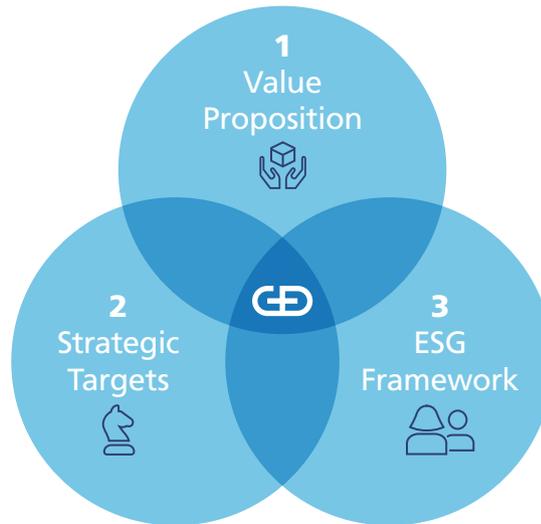
Next to the committee G+D in 2021 established the **Corporate Sustainability** function, which reports directly to the CEO. This function plays a key role, since together with representatives from HR and Compliance it has responsibility for ESG issues managed at the Group level. Its core tasks are developing and refining the binding Group-wide sustainability strategy, implementing the defined measures, and reporting via quarterly performance reviews. Working closely with the sustainability managers who represent the individual business sectors, measures are defined based on the binding sustainability strategy. These are then implemented in the relevant parts of the organization. The sustainability managers in the business sectors serve as the interface to the associated subsidiaries and their designated local representatives. Together, they form the **Sustainability Manager Team**, a global network of sustainability experts, who support implementation at locations around the world as they work to achieve the defined sustainability targets.

G+D's sustainability organization



Sustainability strategy

Alongside our value proposition and strategic enterprise targets, sustainability is an integral and equally weighted component of G+D's Group-wide corporate strategy.



As part of developing our strategy, we set a far-reaching goal for ourselves with respect to sustainability: **We want to lead the way on ecological and social issues within our markets and help to create a healthy environment and livable society by doing business responsibly.** We have underpinned this with transparent and clearly formulated targets for each of the three sustainability aspects, in line with the principles and Sustainable Development Goals embedded in the UN Global Compact.

- The **environmental** aspect brings together our climate and environmental protection activities and our measures to save resources, which are aimed at reducing our ecological footprint. We are also working to make our product portfolio even more sustainable and greener in the future. Developing and deploying sustainable technologies is a key action area in this respect. We aim to reduce our scope 1, 2, and 3 GHG emissions to net zero by 2040 and ensure green products account for 75% of our revenue by 2040.
- The **social** aspect covers health and safety at work, diversity, equity, inclusion, training and development, and working in a modern work environment. Increasing the proportion of women in executive management positions to 20% by 2030 is one of our defined targets in this area.
- **Governance** is about responsible and forward-looking corporate management. In addition to sustainable investment and business models, governance includes digital responsibility, data protection, ecologically and socially sustainable supply chains, and the integrity of our day-to-day business. Due the requirements for European companies which result out of to EU legislation, we have set a special focus on complying with the requirements of the Act on Corporate Due Diligence Obligations in Supply Chains.

Specific goals for sustainable development

As part of our sustainability strategy, specific targets have been defined for G+D's ESG criteria:

ESG dashboard



¹ Production and operational sites with 50+ employees
² Act on Corporate Due Diligence Obligations in Supply Chains

We measure our achievements using selected, centralized KPIs. A centralized database has been created at Group level to hold all sustainability data. The data is recorded locally every year at each company location. An in-year survey and external verification are scheduled for 2023.

Alongside ESG criteria, the **Sustainable Development Goals (SDGs)** set out by the United Nations form another important point of reference for our sustainability commitment. G+D particularly impacts nine of the seventeen SDGs.



– **SDGs in the environmental field: 9, 12, 13 (industry/innovation/infrastructure; responsible consumption/production; climate action)**

Actively managing the environmental impact of our economic activities is a key element of our ESG strategy. We aim to reduce our carbon footprint. We will do this by focusing on developing our portfolio in an innovative as well as sustainable way by optimizing our own value-adding activities and those of our suppliers.

– **SDGs in the social field: 3, 4, 5, 10 (health and well-being; quality education; gender equality; reduced inequalities)**

Our employees are our most important asset. They are crucial to our success. Their health and safety, a modern work environment, and extensive, needs-based training opportunities are at the heart of our global staff development program. We have also made diversity, equity, and inclusion a central aspect of our strategic orientation.

– **SDGs in the governance field: 8, 16 (decent work and economic growth; peace, justice, strong institutions)**

Our corporate values are of central importance for our conduct towards customers, partners, and society as a whole. Our business success is based on acting in a trustworthy and responsible manner and maintaining our integrity. Our compliance and data protection management system and the G+D Code of Conduct serve to embed integrity and adherence to the law within our organization and also in our business relationships.

Supported initiatives for more sustainability

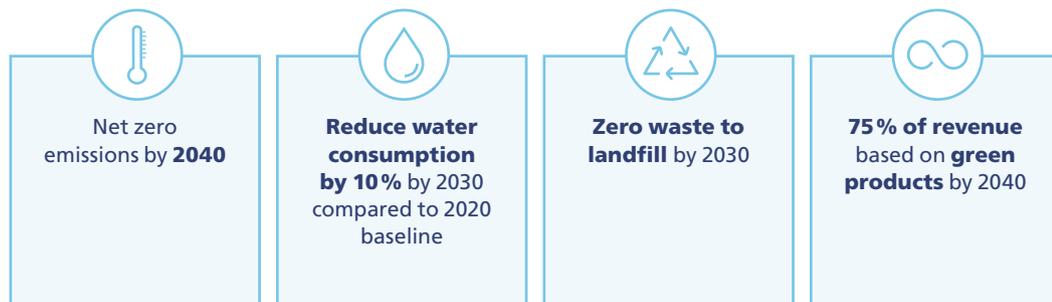
Sustainability is a collaborative effort. We therefore support various global and local initiatives, networks, and peer groups. Open and transparent dialog with actors outside the company is an important element in the ongoing development of our sustainability strategy as well as of G+D's commitment to sustainability.





Environmental: Reducing Our Ecological Footprint

Protecting the environment is one of society's greatest challenges and requires us as a company to reduce the impact of our economic activities on the planet. Under the environmental heading, we have grouped our climate and environmental protection activities and our resource conservation measures. We also believe that the design of our business activities and processes has significant potential to positively impact the environment. This applies to our own production facilities and also to collaboration with our upstream and downstream business partners in the supply chain. All the various measures and activities are aimed at optimizing our ecological footprint. This also includes our customers, as we continue to make our product portfolio even more sustainable going forward.



Our contribution to the UN's Sustainable Development Goals



Clear structures for uniform Group-wide standards

As a global company, G+D takes responsibility for protecting the environment. Across our diversified product portfolio, environmental requirements vary significantly depending on the characteristics of the site, local legal requirements, and the type of operating activity. We take all these aspects into account in our management concept.

Group-wide framework requirements and objectives for environmental factors are set by the ESG Committee under the direction of the Corporate Sustainability function. The framework requirements and location-specific processes are implemented locally by the business sectors and the management team responsible for the respective site.

G+D's sustainability organization manages and monitors compliance with the framework requirements and implementation of the Group's environmental objectives. Effective long-term corrective measures are introduced if any deviations are identified.

Our approach

We monitor our activities around the environment and climate protection in a fact-based way using central metrics. We report our greenhouse gas emissions in line with the internationally recognized Greenhouse Gas Protocol standard (GHG). In addition to greenhouse gas emissions, we also measure our water and energy consumption as well as waste volumes. Our metrics, which are based on the standards set by the Global Reporting Initiative (GRI), are calculated globally for all consolidated companies. The figures are fed into our Group-wide sustainability database.

We use certifications and international guidelines to consolidate and standardize our activities around the environment. Our 20 largest production sites have environmental management systems in place that are certified to ISO 14001. In addition, the G+D production facilities for banknote paper in Louisenthal and Königstein also have energy management systems that comply with ISO 50001. We are planning to introduce such a system at our Athens site in 2023. All our European locations comply with the EU Energy Efficiency Directive. In the Carbon Disclosure Project (CDP), the world's most extensive climate protection ranking, we achieved the sectoral benchmark level in 2022.

Our targets

To meet our ecological responsibility, we have set ourselves clear, measurable targets for the key areas of climate, water, waste, and our product portfolio.

- With regard to the **climate**, we aim to achieve net zero Greenhouse Gas emissions by 2040 (covering scope 1, 2, and 3 emissions).
- We intend to reduce our **water** consumption by 10 % by 2030 compared to our 2020 baseline.
- From 2030 onwards, we will send zero commercial **waste** to landfill and at the same time make a significant contribution to the circular economy.
- We want to generate at least 75 % of our revenue from **green products** by 2040.

In order to achieve these and other qualitative targets, we have initiated a number of measures and are preparing further activities. We know that our transformation into an ecologically sustainable company calls for long-term commitment, innovative verve, and ongoing adaptation to changing social, legal, and economic conditions. Accordingly, we intend to continuously develop and expand our environmental targets over the coming years. In this chapter, we provide an overview of the current situation with regard to climate, water, waste and recycling, and green products.

Cooperation and communication for more climate and environmental protection

We work closely with our stakeholders both as a Group and via the individual business sectors. In 2022, our focus was on various workshops, quantitative surveys on customer and market requirements, and direct exchange with selected customers regarding ESG topics. We aim to maintain this ongoing exchange and increase our collaboration with customers on sustainability issues. This will allow us to ensure that our products and services meet the requirements of our stakeholders. It also enables us to effectively assist our customers in achieving their sustainability goals.

By participating in a range of networks, programs, and projects relating to climate and environmental protection, we gain important input for the further development of our own sustainability strategy. In return, we contribute our many years of practical experience to these networks and help other actors to grow their knowledge. G+D is a long-time member of the Peer Learning Group Climate of the German Global Compact Network (DGCN). We also share information with other companies as part of the Carbon Disclosure Project (CDP), are a founding member of the Munich Business Climate Pact and have been participating in the econsense sustainability skills program initiative since 2021.



Climate protection

Climate change is one of the greatest challenges of our time and calls for urgent global action across all areas of society. We strongly believe that companies must make a significant contribution to this process, and we want to help drive it forward. We therefore set ourselves a new climate goal in 2021. Taking a science-based approach, we want to reduce our CO₂ emissions to net zero by 2040 – covering all scope 1, 2, and 3 emissions. Our interim goal for 2030 is to reduce emissions by 42 %, with 2022 as the baseline. In pursuing our climate goal, we are making a concrete contribution towards limiting global warming to 1.5 degrees. We drew on the criteria set down in the Science Based Targets Initiative (SBTi) when developing the goal and submitted our commitment letter in March 2022. We plan to have our goals approved by the SBTi in 2023.

To achieve our ambitious climate target, specific action is required in a number of areas. We will continually modernize our infrastructure, lower our energy consumption, expand the use of renewables at our various locations, and obtain 85 % of our energy from renewable sources by 2030. At the end of 2022, we launched a Group-wide project to enable us to comprehensively define and implement the relevant measures across the organization. Over the coming years, we will also provide dedicated funding for the necessary investment in sustainability.

Emissions (corporate carbon footprint) 2022

Scope 1: Direct GHG emissions	tCO ₂ e	30,089
Scope 2: Indirect energy-related GHG emissions	tCO ₂ e	53,729
Scope 3: Other indirect GHG emissions	tCO ₂ e	223,813
Total emissions	tCO₂e	307,630



Saving energy

To reduce our direct GHG emissions, we are increasingly focusing on energy-saving measures. This involves identifying major energy drivers through hotspot analysis, so we can introduce specific efficiency and CO₂ measures at the relevant locations that deliver significant savings.

Examples include insulating tanks and pipes, switching to more efficient machines, and taking action to make heating and air conditioning in our buildings more effective. We are turning down the thermostats, insulating buildings, and deploying technical solutions such as linking our production machines to the central cooling system. At G+D's Louisenthal subsidiary, we use river water as a source of cooling for our banknote paper production facilities. This enables us to save substantial amounts of energy for running our compression refrigeration machines without endangering the river's ecosystem. We are also investing in further modernization of our infrastructure while taking ecological and economic criteria into account. At our production facility in Spain, we optimized the heating control system by installing new hardware and software and by replacing conventional boilers with new, more efficient condensing boilers. We are also looking closely at our production processes. For example, we were able to identify specific reduction measures around the production of our ePassport after calculating the product carbon footprint (PCF).

Use of renewables

While our commitment to saving energy enables us to reduce consumption, we will always need a certain amount of energy for our production processes. We are therefore working systematically to increase our use of sustainable and renewable energy. One way we are doing this is by regularly reviewing our various locations to identify where we can generate renewable electricity from solar energy, wind power, and hydroelectric power. This means we are not only acting in an ecologically sustainable way but also making ourselves less dependent on energy supplies from third parties and boosting our resilience.

At our Louisenthal subsidiary, we have been generating hydroelectric power for the production of bank-note paper and security foils for many years. In 2020, we launched a major solar power project at our production facility in Malaysia, which enabled us to generate more than 1,600 megawatt hours of electricity from renewables in 2022. At other locations, including Spain and Louisenthal, solar power is already being generated and the installation of new systems is under active consideration.

In addition, we purchase the energy we require from renewable sources wherever possible. This includes operating substantial data centers with electricity from renewable energy sources. At locations such as Greece and India, we already utilize 100% green energy from wind power plants.

We have set a specific Group-wide goal for purchasing electricity: 85% of our needs will be met by renewables by 2030. A project designed to enable us to reach this target was launched in 2022.

Mobility

As part of our commitment to tackling climate change, we are also making our mobility sustainable. We only take business trips if they can be justified from an economic and ecological standpoint – and our corporate travel policy gives preference to rail travel over flights for domestic trips. Routine meetings are usually held virtually.

The existing situation regarding commuting and fleet vehicles varies significantly from location to location worldwide. Instead of an enterprise-wide concept, we are therefore implementing individual solutions at the local level. These range from supporting car sharing programs in Spain and allowing free use of charging stations in Germany to converting fleets to hybrid vehicles in France.

Water

Water is a vital resource for all living beings on Earth. We are aware of our responsibility in this area and are taking an efficient and environmentally friendly approach to our use of water. A water usage strategy has been implemented across the Group, and we have set ourselves the goal of reducing water consumption by 10% by 2030. We specifically chose water consumption as an indicator because it measures how much water is removed from the natural water cycle in the longer term; this indicator has the biggest impact on the environment. Our data monitoring is based on GRI requirements. We intend to expand our reporting on water in the coming months and years, and we are currently looking at introducing more water-related targets.

Since the potential effects of water use vary significantly from country to country and thus also from location to location, we favor specific local analysis and action planning. At all locations, we meet at least local legal requirements. Based on the Aqueduct Water Risk Atlas published by the World Resources Institute, we have analyzed local water risks for all our locations and facilities. In doing so, we took particular account of factors such as water scarcity and water pollution. On the basis of this analysis, we will develop location-specific measures in 2023 with the aim of preventing or minimizing any potential negative impacts caused by our consumption of water.

Water consumption 2022

Water withdrawal	m ³	3,229,614
Water discharge	m ³	2,794,917
Water consumption	m ³	434,517
Re-used water as a proportion of total water consumption	%	63.6



Waste management and circular economy

Conscientious use of resources is a crucial challenge for sustainable development. In this context, doing business responsibly means considering the entire value chain. We therefore make every effort not to generate waste in the first place, to use as few resources as possible, to deal responsibly with unavoidable waste, and to recycle many raw materials. As a result of these measures, we were able to reduce total waste by 4.7% in the reporting year. We are currently developing a comprehensive system to cover the circular economy and waste management. Our defined goal is to send zero industrial waste to landfill by 2030. We manage and monitor our targets relating to waste management and the circular economy based on GRI standards.

Waste

Total waste	Metric tons	16,131
Landfill	Metric tons	1,502
Proportion of waste sent to landfill	%	9.3

Factors influencing resource use and circular economy

Product design: When designing our products, we have a direct influence on the resources used and the environmental impact. Consideration of sustainability requirements is an integral part of our product development process. We operate in compliance with RoHS Guidelines and the REACH Directive, which restrict the use of hazardous materials and chemicals. Monitoring occurs using the BOM Check database. Our partners and customers along the entire value chain are closely involved in our product design process. We are pursuing three approaches:

- Complement analog products with digital solutions
- Use recycled materials as a substitute for primary materials
- Use renewable materials

Production: We continually strive to optimize our production processes in order to minimize our use of resources and avoid waste. Our strategy involves combining lean management with sustainability management; interdisciplinary teams are key to success here. For example, we have reduced the amount of material used in one component by 50 % in recent years as a result of cooperation between lean management experts, production managers, and the waste management officer at Louisenthal.

Designing sustainable process models: We are working on establishing circular process models for our customers. In our cash management processes, for example, we have switched from single-use plastics to our own cartridge system for packaging banknotes. The NotaTracc® system applies the basic principles behind freight containers to the banknote cycle. The core of this system is a green plastic cartridge, the NotaTracc® tray, in which banknotes can be transported and stored loose, without any additional packaging. These banknote containers also support automation and quality assurance of workflows in cash centers and boost efficiency. In other business areas, we are working with partners to develop and implement sustainable concepts and solutions for business processes associated with our products.

Recycling: Recycling is another key focus area. Along with sustainable payment cards like our Convego® Recycled Card, this is also evidenced by our production of PVC cards. Here, rejects are broken down into their main components – plastic and chip. Our chip cards bear the WEEE logo. This allows them to be returned and recycled at the end of their service life, as can wearables and smartcards. We work with a recycling service provider to make this process as efficient as possible. G+D is also developing new solutions for improved recycling of raw materials, particularly in the area of payment cards. In 2021, we worked with Mastercard to create a system for returning used cards and launched a pilot project with a major German bank. In addition to product-specific recycling processes, we continually review the recovery of waste at our locations. For example, we send discarded paper to paper mills for recycling and help our customers recycle shredded banknotes. At our Athens site, we utilize a waste management and recycling system to recycle almost 100 % of all waste. Where this is not possible, we make sure that waste is incinerated to create energy.

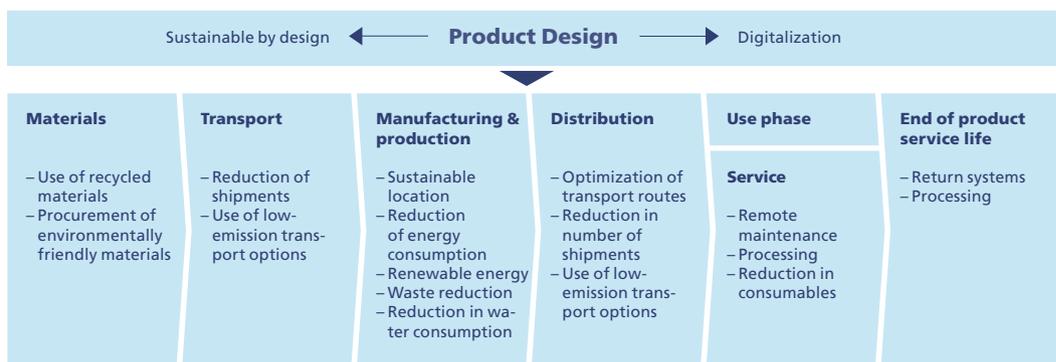


Green products

We aim to make our products sustainable throughout their entire lifecycle. Our products and services should have the maximum positive impact on the economy, environment, and society for us and our customers. As a B2B company, we also enable our customers worldwide to achieve their own sustainability objectives through our green products. This allows them to offer sustainable solutions to end consumers. We are initially focusing on areas that have the greatest impact; a structured, transparent, and data-based approach is important to us. Our aim is to generate 75% of our revenue from green products by 2040, achieving this through product innovation and targeted promotion of environmentally friendly technologies. This will enable us to cut GHG emissions in our production processes and in the supply chain.

But what exactly is a green product? At the end of 2022, we launched a project to help everyone at G+D fully understand this term and to create a framework for external assessment. The aim: to develop a clear and plausible definition of criteria for green products and establish a process for promoting them.

Sustainable value chain



The development of green products and sustainability improvements to existing products are already having a positive impact. Below are some examples:

- Convego® Recycled is the first-ever payment card on the market with a body made out of 100 % recycled PVC. In 2021, the card was added to the Mastercard Sustainable Materials Directory, a register of sustainable card materials. Analysis of our card showed that energy savings were 54 % greater and the reduction in emissions 75 % above than that required by the criteria. Several large European banks are already using this card. Other sustainable payment cards from G+D are set to be certified in the Mastercard Directory as well: Convego® Natural has a card body made entirely from plant-based materials that are industrially compostable and can be safely incinerated. The Convego® Parley Ocean card was developed in conjunction with environmental organization Parley for the Oceans and is produced using plastic waste collected from the world's oceans and beaches. With its Pledge 2030, G+D has committed to no longer use any virgin plastic in its payment card products by 2030 at the latest. Recycled, industrially compostable, or biodegradable materials will be used instead.

We provide transparency around our payment cards by disclosing the emissions we produce. By calculating the product carbon footprint of our cards throughout their entire life cycle, we can make targeted product improvements.

We work with eco-innovative partners including Doconomy and Patch to provide sustainability insights into payment methods through the use of digital tools. The aim is to increase transparency around CO₂ emissions in the product lifecycle and then take action to reduce them. We are continually expanding our network of partnerships. This enables us to support banks and fintechs implement their sustainability strategies effectively, and we allow consumers to adopt a more sustainable lifestyle by providing innovative solutions.

- We also calculate the product carbon footprint of our SIM cards and eSIMs (embedded SIMs). A study conducted by the Fraunhofer Institute confirmed the eSIM as a more environmentally friendly alternative to existing SIM solutions, with the eSIM's GHG emissions being 46 % lower over its lifecycle. For conventional SIM cards, 59 % of emissions occur during production (upstream), while transport and use (downstream) account for 41 %. In the case of the eSIM, on the other hand, only 2 % of emissions occur during production. The remaining 98 % occur downstream, as the eSIM chip is installed in the mobile device by the manufacturer. The findings of the study demonstrate the eSIM's potential as a more sustainable connectivity solution. By 2030, the eSIM is forecasted to account for 76 % of all smartphone connections, which would enable a significant reduction in CO₂ emissions.
- In 2022 we launched our green banknote. It demonstrates how banknotes can be made from environmentally friendly materials using low-resource production processes. With its long service life and advanced security features, it makes a crucial contribution to a more environmentally friendly and efficient cash cycle. The product carbon footprint calculated for the new banknote shows that its emissions are 29 % lower than those of a conventional banknote. We also established the water footprint and implemented corresponding optimization measures. The first customer order for our green banknote is currently in production and the banknotes will enter circulation at the beginning of 2023.
- Alongside banknotes, we also want to make the wider cash cycle more sustainable, which led to the launch of the Green Cash Cycle Initiative in 2022. Through various measures covering aspects such as transportation of banknotes, packaging, and waste reduction, we are extending our positive influence around the use of banknotes worldwide.



Social: Employees Are the Key to Success

The social component of ESG focuses on our workforce of more than 12,000 people worldwide. In a fast-moving environment, they shape our future with a high level of commitment, innovation, and expertise. They are essential for our success and thus central to our corporate strategy. Our goal is to align the needs of our employees with the requirements of the company to the maximum possible extent.

Based on our corporate values, we seek to foster a culture of equal opportunity in which everyone feels valued, fairly treated, and included. Our key priority is to create a work environment that enables everyone to flourish and achieve their full potential. G+D is committed to respecting human rights across the organization and to upholding global occupational health and safety standards. Diversity, equity, inclusion, lifelong learning, health, and safety are therefore central elements of our strategy in terms of social factors. Similarly, we aim to provide an attractive and modern work environment.



Our contribution to the UN's Sustainable Development Goals



Diversity, equity, and inclusion

Collaborative, reliable, and innovative: those are the values that motivate us at G+D. Lived diversity, equity, and inclusion are key elements. At G+D, we understand diversity as cooperation between individuals who are very different and unique as a result of their (professional and personal) experiences, values, background, and education. This variety of opinions and perspectives enriches us and contributes to our success. To us, diversity means in particular diversity of thinking. We encourage collaboration that is shaped by trust, mutual exchange, and constructive discussion. Our aim is to create a culture of equal opportunity in which everyone feels valued, fairly treated, and included. Because we are all different, we learn from and with each other. In doing so, we reinforce our sense of community as G+D employees. Trust and security help to create a feeling of belonging. This is only possible in a work environment that is free of harassment and discrimination. Impeccable behavior and the ability to treat each other with respect are essential prerequisites.

As a global enterprise, we believe tolerance and openness are crucial. We are actively committed to the German Diversity Charter, an employer-led initiative, and also support the Sustainable Development Goals of the UN Global Compact. Our global diversity, equity, and inclusion (DE&I) mission statement and associated Group-wide DE&I policy set out our understanding, ambitions, position, commitment, and actions in this area.

Our approach

G+D explicitly opposes discrimination and/or harassment of individuals on the basis of particular characteristics, personal traits, and life circumstances. We encourage diversity in all its forms and provide an equal and inclusive work environment that is free of prejudice, discrimination, and harassment.

No one may be discriminated against when working for us. This applies at every stage of the employment relationship, starting from the point at which an individual applies for a job or a training position. We work hard to ensure that promotions, transfers, training and development, granting of annual vacation time, and terminations are free of discrimination.

¹ Production and operational sites with 50+ employees

Our goals

The fundamental aim of DE&I management at G+D is to leverage the diversity of our workforce in order to achieve our corporate objectives and enable employees to reach their full potential. Diversity plays a central role in our Group-wide sustainability strategy.

In our specific targets, we have focused initially on gender-related aspects. We intend to significantly increase the proportion of women in leadership positions by 2025. If there are more than three senior management positions in a company or unit, at least one of these positions will be staffed with a woman. For global executive management, we have set ourselves the goal of gradually increasing the proportion of women to at least 15 percent by 2025 and to at least 20 percent by 2030. Worldwide, the gender balance in line management should, at the local level, at least correspond to the structure of the workforce locally by 2030. In our Group-wide talent program, we are aiming for a female quota of at least 40 percent. When making appointments to our Supervisory Board, we make sure that we comply with legal requirements at the very least. The proportion of women on the Supervisory Board is currently 42 %.

Women in leadership positions in 2022

Women as a proportion of the total workforce	%	30.5
Executive management	%	9.7
Line management	%	21.7

Clear structures and responsibilities for diversity, equity, and inclusion (DE&I)

DE&I management is part of the global HR organization at G+D and managed globally combined with local solutions. We have established a regular sounding board meeting for this purpose, comprising all diversity officers from G+D's locations worldwide. This meeting is led by the central function responsible for diversity, equity, and inclusion. The aim is to jointly implement strategic guidelines, discuss necessary measures, support one another, and initiate joint actions and initiatives. At individual locations, there are local DE&I teams consisting of employees from business or technical departments acting in a voluntary capacity. These teams are led by diversity officers from HR.

Our strategy

To us, fairness and equal opportunities at work mean that employees are supported based on their abilities, qualifications, experience, and achievements. All employees are treated impartially and fairly. Recognition and appreciation of all employees is an absolute priority. Each employee is able to use their skills, knowledge, and experience in such a way that they enable us as a company to perform our core tasks as effectively as possible. All employees have equal opportunities for development within the operational constraints in accordance with their abilities, qualifications, experience, and achievements.

G+D employees act responsibly in line with the DE&I mission statement and associated DE&I policy. This enables us to jointly create a fair, equal, and discrimination-free work environment.

G+D is committed to:

- providing a work environment free of discrimination and harassment
- taking action to prevent or end discrimination and harassment
- taking all information and reports about discriminatory behavior seriously and responding promptly and appropriately
- ensuring that staff is informed about this policy and can view it at any time

Executives and managers play a key role in preventing discrimination and harassment. G+D therefore requires managers at all levels to make a special commitment to ensuring this.

Our managers:

- ensure that they themselves do not behave in a discriminatory way towards other people
- make decisions about developing individuals solely on the basis of their abilities, qualifications, experience, and achievements
- apply the principles of equal opportunity
- are vigilant with regard to discriminatory behavior and harassment within the company and towards negative behavior
- regularly attend trainings on diversity, equity, and inclusion and educate themselves further in this area
- take seriously all information and reports about discriminatory behavior and respond promptly and appropriately

Overview of selected measures

A central element of our global DE&I strategy is to jointly create a diverse, equal, and inclusive culture at G+D. We have developed a framework to help achieve this. Alongside HR measures, G+D raises awareness among staff and managers through regular global and local campaigns and initiatives.

DE&I mission statement and DE&I policy

In our global DE&I mission statement and associated Group-wide DE&I policy, we clearly set out our understanding, ambitions, position, commitment, and actions in this area.

Red flag behavior guideline

G+D has published a guideline on unacceptable behavior that will not be tolerated (red flag behavior). This guideline explains the various forms that discrimination and harassment may take. It is designed to raise awareness among staff.

DE&I portal

G+D provides a central information portal containing comprehensive information and links relating to diversity. Our employees can access this portal at any time to learn more about diversity, equity, and inclusion.

Training

We regularly organize both voluntary and mandatory training courses for staff and managers. This ensures that all our employees know what the expected standards of behavior are. They can educate themselves further on diversity, equity, and inclusion and reflect on their own behavior. These training courses are organized and delivered globally or locally, as required. Our existing general training courses for managers and staff have been reviewed and modified to take account of our focus on DE&I. The diversity training category has been expanded to include topics such as unconscious bias, allyship, and dealing with discrimination.

Continuous awareness raising through internal communication, events, and initiatives

We want to further raise awareness of DE&I issues among employees – and particularly managers – and to provide appropriate opportunities for doing so. All Group employees are regularly informed about various DE&I topics. They are encouraged to participate in events, initiatives, and campaigns and contribute their experiences, opinions, and perceptions, ask questions, and educate themselves further on this topic. This helps to continuously raise awareness and also to establish the desired inclusive corporate culture, which offers equal opportunities to all.

We regularly publish articles on the intranet on different topics around diversity and its impact on the work environment and those around us. These articles are accompanied by interviews and videos to raise awareness. We have already tackled a range of subjects, including cultural differences, language barriers, obstacles in everyday life, clichés and perception of the sexes, experiencing discrimination, witnessing discrimination, sexual orientation, intergenerational cooperation, and much more.

In the reporting year, we also organized a series of diversity lunch talks, a new format that sees employees discussing various aspects of diversity. To mark the German and European Diversity Days and celebrate our commitment to the Diversity Charter, a range of activities and initiatives were held. Colleagues were invited to visit information stands to discuss issues and obtain information from members of the G+D diversity team, HR representatives, and AGG (General Equal Treatment Act) officers. G+D has regularly participated in Girls' Day since 2009. Held once a year, this special day is designed to encourage girls and women to explore technical and scientific careers. It is the biggest career guidance project for female high school students worldwide. They gain insights into jobs that girls are less likely to consider as career options. Since G+D began to participate in the campaign, we have presented our technology company to 320 girls and introduced them to the world of technical professions.

Interaction between generations is also important at G+D. For example, in 2022 we advertised the opportunity to participate in an affinity group on the topic of: "Successfully including and integrating younger colleagues into a team of mostly older employees." The results of this affinity group will be published internally in the first quarter of 2023. Affinity groups on other topics are being planned.

Lifelong learning

Increasing digitalization, rapidly changing customer requirements, technological advances, and the ongoing need for skilled workers mean that lifelong learning is crucial for the growth and economic sustainability of our company. Our global learning management system allows us to provide and document training and continuing education on relevant topics across all our locations worldwide. The system also offers our locations the opportunity to integrate specific local e-learning training sessions on desired topics and make them available to employees locally. We continually analyze skills and working methods our staff requires and modify our high-quality training courses, professional development offerings, coaching programs, and mentorings accordingly.

Specifically, our goals are:

- To ensure 80 % of our employees worldwide participate in at least 3 training activities per year until 2025; these can be training courses, e-learning sessions, conference attendance, coaching, or mentoring.
- To leverage our global talent programs for targeted development of staff and for succession planning and to link this with local talent development programs.
- To make staff development and advancement transparent. We pay particular attention to diversity, and especially to supporting women and international candidates.
- To introduce people reviews for all G+D employees worldwide, beginning in 2023.



Clear structures and responsibilities for lifelong learning

Lifelong learning is part of our OneHR global HR organization. The Talent and Leadership Development team is responsible for the whole subject of lifelong learning, including defining and monitoring measures and goals. In this area, the team oversees continuous development of employees and dual training for apprentices. G+D also helps its employees undertake and pay for private, career-related training.

Long-term development as a top priority

Employee education and training is a key success factor for G+D. We compiled our 2022 training catalog in close consultation with our various departments to ensure that offerings are tailored to employee needs. In addition to established successful tools like coaching and mentoring, we trialed new formats in 2022, such as job shadowing. In this program, employees accompany executive managers for a day, thereby gaining an insight into their responsibilities and activities.

Since the Group-wide introduction in 2021, our learning management system has been appreciated and intensively used by our employees. We have expanded it to include e-learning sessions, which are accessible to employees worldwide. These training sessions are available in several languages, with more content being added regularly. We have also conducted trainings for our global HR community so that the learning management system can increasingly be used for local needs at our locations. We intend to expand these training sessions in 2023. We want to enable our HR units all over the world to organize and use their own training content within the shared system. At the initiative of several global locations, we have piloted the use of a major training provider who supplements our existing offerings with technical content in particular. We plan to give more G+D locations access to these offerings in 2023.

Trainings

Number of training hours per year and employee	Hours	10.8

In Germany, we were able to add in-person events to our range of training courses again, which mainly consisted of digital courses in 2021 due to the Covid-19 pandemic. Building on our positive experience with digital formats, we can now offer an even more balanced mix of in-person and online events to meet the needs and wishes of our employees. Digital formats help us reduce travel time and costs, while topics such as personal development are covered in in-person events. We plan to leverage the flexibility of digital learning formats even more effectively in 2023, so that we can also offer trainings internationally.

New management culture: trust-based leadership

Effective management and collaboration are essential aspects of our everyday work. At G+D, we aim to establish a leadership style and way of working that is based on trust, mutual feedback, and empathy. Going forward, management will be expected to function more as coaches and change managers. As such, they will engage in ongoing exchange to drive forward new developments in the company. Teams should always be clear about what specific contribution they are making to corporate goals. We intend to adopt this approach in 2023 so that all our employees are involved in helping us operate even more successfully in the market (further information about this can be found in the Working @ G+D section).

The learning journey introduced in 2020 for our global executive managers continued in the reporting year. In our regular "Learning Fridays," we address various current leadership issues with our executive managers. Interactive training formats also enable our managers to share information and network with each other across national and organizational boundaries.

In 2023, we intend to introduce further resources for managers at all levels in order to support them even more effectively in their challenging role.

New feedback culture at G+D: Performing.Together

In the future world of work, our employees will need to develop new skills, adapt themselves to ever-changing requirements, and participate in continuing education. This calls for feedback mechanisms combined with an active learning culture in the company, plus a high willingness to learn on the part of employees. The topic of performance management was therefore redefined and redesigned in 2022 by an international HR project group. With Performing.Together, we are launching a new, globally standardized feedback dialog in 2023. The aim of Performing.Together is to establish a continuous feedback loop between employees and managers. The feedback dialog is not only an HR tool – it also lays the foundation for further developing our way of collaboration and creating a sustainable work culture. The feedback dialog is supported by deployment of the SAP SuccessFactors Performance & Goals module. Implementation began in January 2023 with a series of information events for staff worldwide.

The feedback dialog consists of regular mutual feedback on specific issues. It also creates a connection between day-to-day work and the G+D strategy. As well as being an important tool for performance management, regular mutual feedback provides a good basis for employees' personal development and motivation. Mutual trust is a prerequisite for ongoing learning, both on a personal level and for the organization as a whole. It is also crucial for employees to be able to make a connection between their daily work and G+D's strategy. This allows them to see that their individual contributions are useful and valuable.



The new feedback dialog is based on scientific findings, which show that employees need the following to feel included and motivated:

- Professional skills and development (competence)
- Freedom to act without feeling controlled (autonomy)
- Being seen, a sense of community, and an understanding of the bigger picture and one's contribution to it (purpose)

Establishing communities of practice

Further expansion of communities of practice (CoPs) is a key element in lifelong learning. CoPs are self-organized groups in which G+D employees from different departments and specializations come together to work on a shared area of interest and drive progress for G+D in that area. CoPs are usually separated from the business organization. They are self-organized and make an important contribution to collaborative working. All employees have the opportunity to create a CoP and invite interested co-workers to participate. At G+D, there are CoPs that cover a number of areas, including Agile, Project Management, Leadership, and Procurement 4.0.

Promoting talent and development

G+D believes it is important to promote and develop talents from within the organization. We provide individual support for development via our Succession and Development HR IT platform. Our employees can use it to share their knowledge and skills and raise their profile within the company.

In our global G+D talent programs with participants from across the organization, we develop staff according to their strengths and individual needs. Under the motto "Growing together – developing talents together" we promote networking and knowledge sharing within G+D, both between the individual subgroups and internationally. Participants are selected via assessment centers. All participants receive extensive feedback and specific recommendations for their professional development.



In 2022, 36 participants completed the Group-wide program. Another group of 29 employees started the 18-month development program in the reporting year. The talent groups consist of employees with 16 nationalities from 12 different countries; 44% of the members are female. The program gives participants the opportunity to develop relevant skills for (self) management and prepare themselves to successfully deal with greater complexity, speed, and diversity in the new world of work. The talent program is aimed at employees at all career levels from all areas. To qualify, they must show potential for a more complex technical or management role.

Another development program is the 18-month Personal Growth Program. This program is aimed at experienced executives and senior managers and has three objectives: personal development of participants, creation of a cross-functional multinational network, and helping to embed a uniform, Group-wide management culture. Twelve participants completed the Personal Growth Program in 2022. The program will be continued in 2023.

In addition to the global Group-wide talent programs, there are also local talent programs aimed at employees who want to grow within their own business sectors and take on additional responsibilities. These local programs were continued in 2022 and many new, talented employees were able to start programs at their locations.

Recruiting talent

We want to recruit talented new employees at an early stage and support their development, thereby enhancing our reputation as an attractive employer.

Having been unable to attend events in person last year due to the pandemic, we resumed this activity in 2022 and spoke with potential employees face-to-face at numerous career events and university fairs. Among the events we attended were Cyberwomen, Unternehmensforum, ITCS (IT & Career Summit), Stuzubi, Traumberuf IT & Technik, and Hochschulkontaktmesse. We intend to maintain this commitment in 2023 and further raise our profile in the labor market. At the same time, we are increasing our collaborative relationships with educational institutions. We work with colleges and universities in Munich, Barcelona, Stockholm, and Mexico City, connecting us directly with new talents. Further collaboration is on the agenda for 2023. Additionally, we offer young people a variety of options for joining G+D. We are currently training 86 young people and young adults at our various locations in 18 different apprenticeships and 10 dual study programs.

Health and safety at work

The health and safety of our employees is an absolute priority for G+D. We take responsibility for our people every day and are committed to preventing workplace accidents and work-related illness. Our aim is to preserve the health and fitness of all employees over the long term. We demonstrated this particularly clearly in the measures we adopted to tackle the pandemic. Health is a non-negotiable element in all business decisions.

G+D has achieved a high level of success in occupational health and safety, with a consistently low number of accidents in recent years. We are nonetheless continuously working to further improve occupational health and safety conditions.

Our goals

Our long-term ambition is to reduce work-related injuries and illness to zero and to help our employees lead a healthy life. We prioritize action that is designed to prevent hazards arising in the first place. This includes systematically introducing long-term measures to address identified risks. Our goal is for all our production and operational sites with more than 50 employees to be certified under ISO 45001 or brought to a certifiable standard by 2030.

As a global company with 103 subsidiaries and joint ventures across 33 countries, we are faced with very different location profiles and a wide range of legal requirements at the local level with regard to occupational health and safety. We take this situation into account in our management concept.

Group-wide framework requirements and objectives for occupational health and safety are laid down by our ESG Committee under the direction of Corporate Sustainability Management and Corporate HR. These framework requirements and location-specific processes are implemented locally by the business sectors and the management teams responsible for the respective locations. Local health and safety managers take responsibility for projects, activities, and programs locally.

Occupational health and safety through systematic prevention

G+D takes preventive action by systematically identifying potential health and safety risks and introducing new measures to reduce them. Transparent monitoring of incidents, systematic introduction of preventive measures, and effectiveness checks are the focus of our activities.

Implementing processes that meet the requirements of international standard ISO 45001 is a key element of our approach. These processes are carried out by managers and include conducting risk assessments and introducing measures to minimize risk. Managers are supported by the relevant safety officer/health and safety manager and staff.

Our goal for all our production and operational sites with more than 50 employees is the ISO 45001 certification or the achievement of a certifiable standard by 2030. Our current coverage for the locations concerned is 77 % of employees.

Selected KPIs for workplace accidents/health

Number of workplace accidents per 100 employees (work-related injuries)	0.7
Working time lost due to work-related injuries (Lost Time Injury Rate, LTIR)	0.8
Lost Workday Rate (LWR)	15.0

To identify potential areas for optimization across the Group, we record all health and safety incidents in our central sustainability database. These incidents are then reviewed by Corporate Sustainability Management.

Key areas of activity in the 2022 reporting year:

- Implementation of health protection measures to prevent and contain Covid-19 infections
- Expansion of first-aider capacity at selected locations, combined with relevant training
- Training and awareness-raising events for managers
- Ergonomic improvements to workplaces

The world of work has become more flexible in recent years; we offer our employees a flexible office option and mobile working from abroad, for example. The new flexible office work models make it necessary to review and modify risk assessments in order to reevaluate potential hazards for our staff and protect them accordingly.

Promoting employee health

For occupational health and safety management to be effective, all employees need to be aware of potential problems and behave appropriately. We therefore take measures to raise our employees' awareness. We encourage our staff to live a healthy lifestyle by providing healthy and ecologically sustainable food in our company restaurants and by offering opportunities for sport and exercise at our various locations. Our training program also has a special focus on preserving physical and mental health. We provide dedicated training and presentations on topics such as workplace ergonomics, relaxation techniques, improving work-life balance, work techniques, burnout, and addiction.

Employees at the Munich site are offered counseling, if required. Counseling is an important pillar of our HR policy, alongside the company physician, addiction and disability representatives, the workers council, and the HR department. When employees return to work after extended illness, we put a range of individually tailored measures in place to ease their reintegration into work life.

Special measures to tackle the Covid-19 pandemic

As part of managing the Covid-19 crisis, we continuously adapted our global hygiene and social distancing protocols to changing needs and requirements. During the reporting year, we again asked G+D employees around the world to work from home whenever possible and where their duties allowed. We also provided masks, gloves, self-administered tests, and disinfection stations, and reduced business travel to a minimum. Our sites in 33 countries conformed to the evolving rules and regulations in effect at their respective locations. Where in-person work was necessary – for example, at production sites – work was carried out on staggered schedules and under strict hygiene protocols in order to ensure the safety of our employees.

Working @ G+D

To support the performance and motivation of our employees, it is important that we facilitate a healthy work-life balance. Our aim is to create a culture in which our employees feel a strong sense of belonging. Therefore, one of our key priorities is to deliver a work environment that enables all employees to achieve their full potential.

In order to be an attractive employer, we provide our employees with good working conditions and a modern work environment. In a Group-wide program, we designed the workplace of the future. The program included mobile working and flexible working hours, flexible models, and a choice of locations. It also covered new working models with the important aspects of management, employee engagement, and collaborative working. Combined with modern IT tools and platforms for convenient collaborative working, we have developed a productive, people-centered, modern working environment. This also includes expansion of our needs-based training programs.



Clear structures and responsibilities

Working @ G+D is being driven forward by the global HR organization. Employees from the various functions and levels and their employee representatives are also included in order to ensure that new developments are always aligned with employee needs.

Remote and flexible working

G+D believes that a mix of working in the office and remote working is the formula for success. Whether highly focused work, communication, creative co-working in the office, or mobile working from home where work-life balance is important, we let people do their work wherever it makes sense and suits their personal circumstances. G+D has deliberately avoided specifying quotas or a fixed number of remote or office working days in order to allow all employees maximum flexibility. This sets us apart from many other employers. With transparency, mutual trust, flexibility, and a sense of responsibility for selecting the right workplace, we are jointly shaping the future of work at G+D.

We offer flexible working time models with no core working hours, no mandatory minimum attendance hours, and no maximum limit on monthly leave. In some work areas, employees can choose to work on a Saturday instead of a weekday.

New management culture: trust-based leadership

Effective management and collaboration are essential in our everyday work. At G+D, we aim to establish a leadership style and way of working that is based on trust, mutual feedback, and empathy. The target vision of trust-based leadership encompasses multiple components: goal-oriented collaboration rather than hierarchical structures, the transfer of decision-making capacity from management to employees, and changes to the role of the manager, who should function less as a technical expert and more as a coach. We see managers at G+D as change managers, as people eager to promote and facilitate new developments within the organization and take their teams with them. We intend to leverage this philosophy in 2023 to further boost our shared success.

To gain a clearer picture of what is already working well in the relationship between managers and staff and where we need to improve, we collected feedback at the global level in one of our business sectors. We plan to use this feedback system in other sectors in 2023. The focus here is not solely on employees in management positions; we believe that everyone can take on management tasks with regard to themselves, the topics they are responsible for, and also in terms of cooperation. We intend to further develop this understanding and the necessary skills in 2023.

New feedback culture at G+D: Performing Together

The world of work requires our employees to keep developing new skills, maintain flexibility, and adapt to new circumstances. G+D therefore supports proactive feedback dialog between employees and line managers. This format was completely redesigned in 2022 and provides an important framework for our corporate culture and the way we work together (further information is available in the Lifelong Learning section).

Mobile Office Abroad

The workation trend (a combination of “work” and “vacation” that means working from a holiday location) has become established in many companies. We also want our own employees to be able to benefit from this flexibility. Representative surveys indicate that workations make employees happier, more productive, and more relaxed. Our Mobile Office Abroad program is a forward-looking work model. However, certain regulations need to be put in place because working in another country may have implications under employment, tax, and social insurance law. For this reason, we have created a model that ensures we meet legal requirements while at the same time offering flexibility and added value for our employees. The pilot phase began in 2023 at our Munich site. The program is suitable for all of our employees who already work remotely. Through the program, G+D employees can work in 18 selected countries across Europe.

Work-life balance

Combining work with looking after children often presents huge challenges for families. As an attractive and modern employer, G+D offers comprehensive support in this area. In 2022, G+D was again able to help families take care of their children during the long summer vacation, thus enabling a better work-life balance. We were particularly pleased to be able to offer numerous excursions and activities, following the relaxation of pandemic restrictions. For example, employees’ children aged 5–12 took part in the 15th G+D holiday activity program in Munich during the first two weeks of August.

In conjunction with our external partner, pme Familienservice, we again provided free child care in 2022 on all four Saturdays leading up to Christmas for employees’ children aged 0–12. Child care was available in various locations, including Munich and Leipzig, and the appropriate hygiene measures were put in place.

We also launched the Parents & Kids pilot project in 2022, which involves allowing employees to bring their children into the office. Emergency situations such as the daycare center closing unexpectedly, the child care provider suddenly falling sick, or school being canceled can be very stressful for parents. At G+D in Munich, it is possible to bring children into the office in such situations. The pilot phase was very well received and ran smoothly. Parents & Kids was used 23 times between May and November. Feedback from employees was entirely positive. Following the successful pilot phase, Parents & Kids will be continued in 2023.

We also offer support and assistance when an employee’s personal circumstances change. This can occur at the employee’s request in order to enable a better work-life balance, for example, or, more specifically, when providing care for a family member or in the event of employee illness or disability. Since 2004, our stage-of-life HR policy in Germany has undergone external assessment by the “berufundfamilie” audit; we hold the highest level of certification. A re-audit is scheduled for 2023.



Introduction of Silent Wednesday mornings

In our everyday working lives, we often do not have enough time to focus fully on a piece of work. To give all G+D employees the opportunity to concentrate on work without interruptions, we have been testing "Silent Wednesday" mornings at G+D in Germany. The aim is to create a healthy balance between the many different forms of daily teamwork and communication on the one hand and focused or creative activities on the other. Every Wednesday between 9:00 am and 12:00 pm, we stop all regular meetings, telephone calls, and chat communication. The exception is contact with customers and business partners and other important stakeholders. We tested "Silent Wednesday" mornings for a total of three months and conducted two surveys during the test phase. A clear majority (70 %) of the employees surveyed were in favor of continuing them. Several international locations have now joined the initiative. Further roll-outs and models are currently being discussed within the international G+D HR community.

Support association for employees in need

G+D's commitment to providing assistance to employees in difficult situations dates back many decades. A support association was established by G+D in 1927 as a registered non-profit entity. Then as now, the association had the sole purpose of granting financial assistance upon application in cases of social hardship to employees, their surviving dependents, and former employees in Munich and Leipzig. A four-person committee decides whether assistance should be granted. It consists of G+D's Director of Labor Relations as chair, the Head of HR, and two members of the works council.



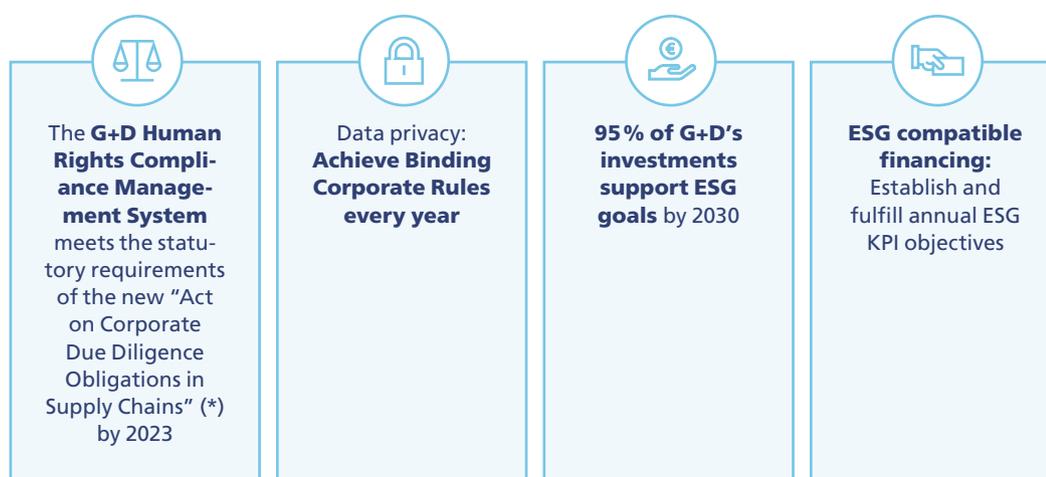
Governance: Responsible Corporate Management

Responsibility has been at the heart of our corporate philosophy for more than 170 years. Collaborative, reliable, and innovative: those are the values that drive G+D. Group strategy provides the foundation for responsible corporate governance. This strategy is based on our mission statement, developed in an integrated process with input from all business sectors, approved by the members of the Management Board, and implemented and managed by them in their respective areas of responsibility.

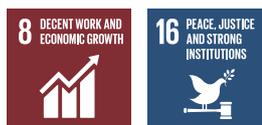
Our corporate values are of central importance for our conduct towards customers, business partners, and our employees. G+D creates confidence – by doing business responsibly and by providing solutions that safeguard essential values of the world with security technology in the fields of payment, connectivity, identities, and digital infrastructures. We create the foundation for this through intelligent integration of compliance and data protection management systems with sustainable ESG criteria.

» **The G+D Code of Conduct lays down our basic rules and principles that everyone must observe. They are not negotiable.** We do not accept any violations. The many examples and the guidance included are designed to help us do the right thing in our work. Especially in difficult situations, it helps if we remember the G+D values and principles. «

Ralf Wintergerst
Group CEO, Giesecke+Devrient



Our contribution to the UN's Sustainable Development Goals

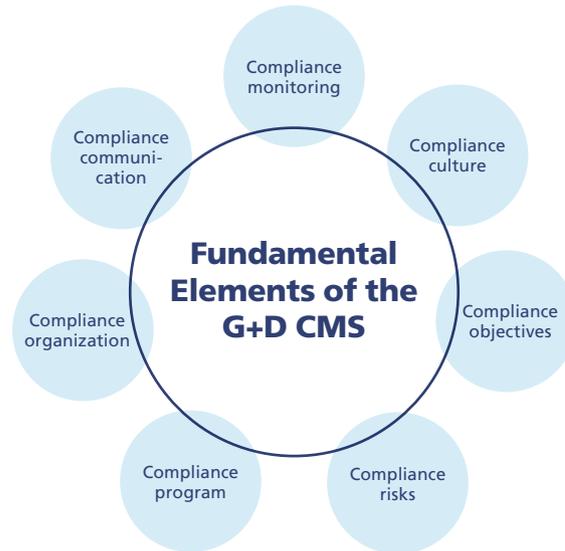


Our commitment in the area of governance:

- We establish global state-of-the-art governance processes and continually refine them
- Our business practices are always based on integrity, compliance with legislation, and the highest ethical standards
- We ensure that human rights are respected along our supply chain

Compliance

As a global company, our business is based on responsible corporate governance, obeying the law, and integrity. Our compliance organization helps us live up to our values, standards, and legal requirements at all times. Its role and aim is to maintain an appropriate and effective compliance management system (CMS) and adapt it to take account of changing legal and business requirements. This allows us to retain the trust of our customers and meet our social responsibility as a company.



Clear structures for uniform standards across the Group

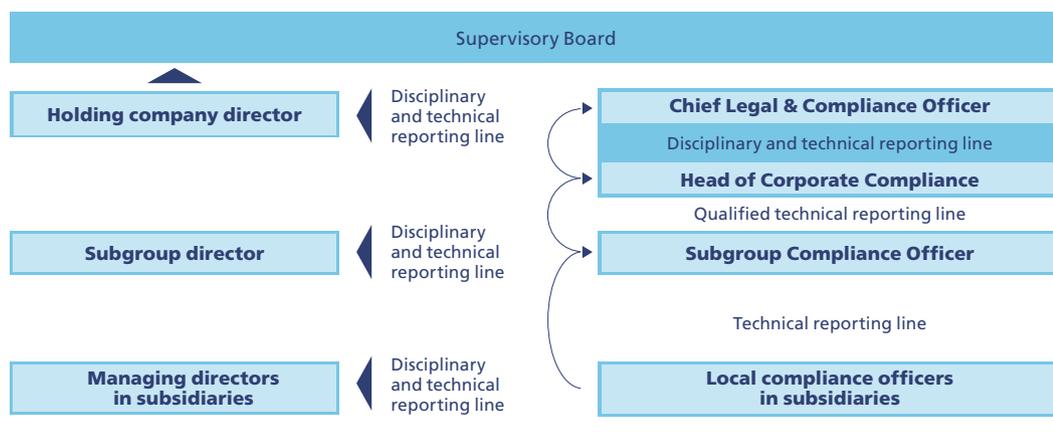
Active management commitment is a key element of the compliance management system. At the Group level, the Group Risk & Compliance Committee (GRCC) chaired by the Group CEO monitors the current status and developments. During the reporting year, the GRCC met regularly every quarter.

The Group-wide compliance organization reports to the G+D Group's Chief Compliance Officer and is managed centrally by the Corporate Compliance department, led by the Head of Corporate Compliance. It works with the Compliance Offices of the decentralized business units in G+D's subgroups and subsidiaries. A compliance officer is appointed as the head of each such office. The compliance officers report directly to a member of the Management Board of the relevant company and also to the Corporate Compliance Office. All compliance officers are supported by local compliance officers (LCOs) at each G+D business location. The local compliance officers are responsible for implementing the G+D compliance management system's requirements and processes at each of the Group's subsidiaries and for monitoring execution and effectiveness.

The new human rights management system is an integral part of corporate governance at G+D. Our human rights officers ensure that we meet legal standards, e.g. the requirements of the "Act on Corporate Due Diligence Obligations in Supply Chains". There is also a Compliance Committee at the subgroup level. The compliance officers and representatives from a wide range of departments attend meetings chaired by the relevant subgroup director to share information on current compliance cases and issues. The objective is to analyze identified risks and new legal requirements with input from all departments. This allows us to modify processes in a timely fashion, if required.

Specialist functions are independently responsible for dealing with other relevant corporate governance issues, such as data privacy, anti-money laundering, and export control.

Compliance management reporting lines



Open internal communication and regular training programs are crucial for raising awareness of compliance issues and thus preventing compliance incidents. We therefore provide regular mandatory e-learning content and training on a range of aspects, including topics such as the basic principles of compliance, anti-corruption measures, antitrust law, and data privacy.

Our approach

Compliance is a topic that concerns all of the G+D Group's business sectors and processes; for us, this goes far beyond simply complying with laws and regulations. Compliance is firmly embedded in our company values. In our compliance strategy, we set out all the measures we take to ensure that our global operations comply with relevant laws, regulations, standards, corporate policies, and values. Our compliance organization is responsible for operating an appropriate and effective compliance management system (CMS) and continually adapting it to take account of changing legal and business requirements. The aim is to add value to strategic management of the entire organization and minimize risks to G+D's commercial success and reputation.

Our goals

Our goal is to maintain and strengthen trust in G+D. Responsible management and the integrity of all employees play a crucial role.

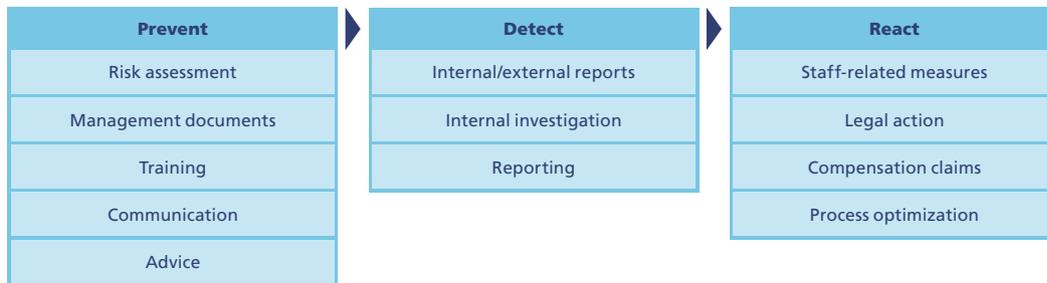
The measures set out in our compliance strategy help us raise awareness within the organization around preventing risks or detecting them early on and taking timely countermeasures in order to avert damage to G+D. Our compliance organization therefore also contributes in particular to Sustainable Development Goal 16 "Peace, justice and strong institutions," which enjoins companies to actively counter corruption and bribery in a business context.

Overview of our compliance elements and measures:

Central compliance management system (CMS)

To ensure sustained commercial success, we constantly weigh opportunities and risks. Our CMS enables us to comply with legislation, detect risks and issues, and address compliance violations. It is also designed to prevent possible breaches of current anti-corruption and anti-trust regulations, uncover any breaches that have occurred, and – where applicable – take action to punish offenses and to prevent such breaches in the future. It thus works on the principle of prevent, detect, react.

The three pillars of an effective CMS



We aim for a high standard of compliance management and have our procedures assessed by external bodies. All G+D Group companies are certified in accordance with the German Institute of Auditors' IDW PS 980 standard. The German Institute of Auditors issues IDW pronouncements, which include assurance standards (PS). IDW PS 980 sets out the principles for proper auditing of compliance management systems.

Prevent ... Our risk assessment system allows us to identify both gross and net risks, with external risks also being considered. We proactively and systematically identify and assess compliance risk relating to corruption and antitrust law in order to take preventive measures. During the reporting year, we developed and implemented additional measures on the basis of the net risk assessment undertaken in 2021. These include updating our business partner audit process, firming up criteria for initiating business contacts, providing training on risks involved in initiating business contacts, and organizing campaigns on all relevant compliance topics.

Detect ... Various tools including our G+D whistleblowing system, monitoring, reporting, internal analysis of compliance-related data, and internal audits help us detect possible misconduct at an early stage.

React ... If misconduct is detected, our approach allows us to react early on and take corrective action, thereby averting or minimizing any potential damage to G+D. Under no circumstances will we tolerate anyone committing criminal offenses or misdemeanors in the erroneous belief that they are serving the interests of the company. A zero tolerance principle applies. If there are any violations of the law, we take firm and decisive action.

G+D's Code of Conduct

Our Group-wide code of conduct is an overarching set of rules and guidance for ensuring proper conduct in our everyday work. It sets out boundaries that apply to each and every employee – at every site, in every business sector, and in all our dealings with business partners and each other. G+D's corporate values – innovative, reliable, and collaborative – provide the basis. The code of conduct defines G+D's responsibility to society and includes guidance on respecting human rights and obeying the law. In addition, it addresses the issue of data privacy and the right to protect personal information, covers protection of the environment, and rules out the use of child labor and forced labor. The ten principles of the UN Global Compact, the core labor standards of the International Labor Organization, and the UN's Universal Declaration of Human Rights are all incorporated into the code.

In 2022, we designed and issued a completely new code of conduct in a Group-wide project involving more than 100 contributors from across our global organization. The new code of conduct reflects the latest requirements. We added guidance on a number of new topics, including anti-money laundering, tax regulations, and external communication. In addition to specialist input and regulations, the new code of conduct contains information on the fundamentals of leadership, making decisions, and voicing concerns. It also includes explanations of the core principles of our business as well as additional information, work aids, declarations, and practical examples.

Code of conduct – content and key principles

WE CREATE TRUST	
We take responsibility	
The G+D Code of Conduct	We act responsibly and lawfully.
Lead	We act as role models and inspire others to live the G+D values.
Decide	We take decisions responsibly and carefully.
Concerns	We address concerns promptly and fully.
Humanity is our focus	
Basic working conditions	We respect and care for each other.
Human rights and labor standards	We respect human rights.
We act reliably and with integrity	
Antitrust and competition law	We succeed as fair competitors.
Anti-corruption	We act with the highest integrity and reject any form of bribery.
Conflicts of interest	We make business decisions only in the best interests of G+D.
Tax and customs regulations	We comply with applicable tax and customs law, and reject aggressive tax structuring models.
Accounting and business documentation	We create transparency through correct accounting and proper documentation of business transactions.
Protection and security of essential values shape our actions and our success	
Product portfolio	We engineer security technology that creates trust.
Data protection and digital responsibility	We protect personal data and shape trust in a digital world.
Information security	We protect confidential information, trade secrets, and intellectual property.
External communication	We communicate in a consistent and coordinated manner with external parties.
Company property	We handle work equipment with care.
We take the responsibility for our international actions seriously	
International business relations	We do business across country borders, but always within the legal boundaries.
Money-laundering prevention	We give money-laundering no chance.
We contribute to a sustainable future	
Environment and society	We actively contribute to the preservation of a world worth living in.

Global whistleblowing system for G+D employees

G+D actively encourages people to raise concerns. Information from employees is the most effective way of uncovering compliance violations. We have therefore implemented a whistleblowing system that is available 24/7 worldwide. The tool, called "Tell G+D," acts as an early warning system for G+D and is a central point of contact for employees, business partners, customers, and other stakeholders to report potential misconduct and violations. It therefore provides the basis for successful risk management and makes it possible for us to respond quickly to abuses, avert reputational damage, and improve internal processes.

Steps involved in pursuing a potential case at G+D

At G+D, employees can report issues to their managers, inform the relevant compliance officer, or use the "Tell G+D" whistleblower system. "Tell G+D" fulfills all requirements of the relevant EU directive and provides whistleblowers the opportunity to protect themselves by remaining anonymous. We are currently drafting a new whistleblowing guideline in order to better provide information about the different options for whistleblowers. Various national legislative processes are also being taken into account in this regard.

Responsibility in our supply chain

Based on a shared understanding of sustainable business practice, we want to work with our suppliers and business partners to proactively tackle ecological, social, and legal challenges. Stable and sustainable supply chains are essential for G+D as a global enterprise. Responsible and lawful behavior beyond company boundaries is therefore a key priority. We have set high standards for ourselves, and we also expect our suppliers and business partners to adhere to extensive environmental, social, and governance standards, particularly when selecting, extracting, and processing raw materials.

When purchasing products and solutions, customer requirements are becoming increasingly complex, and companies need to respond flexibly to them. At the same time, the highest quality requirements must be met, and increasingly diverse sustainability aspects have to be taken into account. We therefore expect our suppliers to support us in achieving our sustainability goals by at least respecting and complying with core standards, such as the fundamental principles of the "International Labor Organization" (ILO) and the "Modern Slavery Act".

We have installed a range of instruments to embed and further promote sustainability throughout the supply chain. In 2022, we focused on maintaining global supply chains and on preparing for the introduction of Germany's "Act on Corporate Due Diligence Obligations in Supply Chains".

Group-wide procurement standards and sustainability criteria as a framework

The main element for managing the procurement of goods and services is our Group-wide directive on purchasing, which is binding for all G+D business units. We use it to define and specify the framework requirements for a sustainable supply chain, taking into account ecological and social criteria. The associated rules are also the basis for selecting, reviewing, classifying, and developing our suppliers. We aim to steadily increase transparency throughout our entire supply chain and to achieve sustainable selection and evaluation of all our suppliers. We do this by conducting supplier audits on a regular basis.

We regularly carry out corporate social responsibility audits among our A and B suppliers, including for smartcard manufacturing. Our focus is on our supply chains in Asia. Auditing is conducted in accordance with the internationally recognized SMETA (Sedex Members Ethical Trade Audit) 4-pillar standard, which covers topics such as labor standards, environmental management, workplace safety standards, and business ethics. Our Supplier Code of Conduct continues to be applied throughout the supply chain – 99% of our suppliers have either accepted it or operate under their own codes of conduct that are consistent with the G+D code.

Supplier Code of Conduct

Supplier qualification is another important building block for ensuring a sustainable supply chain. When selecting potential suppliers, we take sustainability aspects into consideration in accordance with our organization-wide standards. We check all new suppliers before commencing a business relationship with them. G+D's Supplier Code of Conduct has been completely revised for 2023, with particular attention being paid to requirements arising from the "Act on Corporate Due Diligence Obligations in Supply Chains" (LkSG). The code sets out G+D's specific expectations of its suppliers in terms of compliance with recognized national and international environmental, human rights, and legislative standards as well as requirements around conflict minerals. G+D's suppliers also pledge to take appropriate measures in relation to their subcontractors in order to ensure that they likewise comply with G+D's requirements. The code includes inspection and audit rights for the purpose of checking compliance with specifications, with appropriate remedial and improvement action required in the event of non-compliance. The updated Supplier Code of Conduct will be gradually rolled out globally in 2023 via the Supplier Management Portal for all suppliers across G+D's business sectors.

Meeting the requirements of the Act on Corporate Due Diligence Obligations in Supply Chains

The Supplier Management Portal (SMP) launched in 2020 assists our purchasing staff in selecting and assessing suppliers. The portal was expanded to include e-sourcing and contract management in 2021. This enables us to apply standardized procedures for contracts and invitations to tender, particularly in relation to sustainability requirements. In 2022, we conducted a detailed analysis of the "Act on Corporate Due Diligence Obligations in Supply Chains" in preparation for the introduction of the Act on January 1, 2023. Our findings were utilized in a global Group-wide project to develop and integrate a comprehensive management system. This system now enables us to meet the additional requirements in a global, transparent, and consolidated manner. We intend to continuously develop this system and adapt it as necessary, taking into account any new developments and our standards and guidelines. To do this, we have implemented further tools and linked them with existing elements from the Supplier Management Portal. Creating this integrated system and the operational organization led by the Group Human Rights Officer ensures that we comply with due diligence obligations in the supply chain.

This is carried out in close cooperation with Purchasing and with other internal stakeholders involved in the Group-wide project, i.e. from Sustainability, IT, Quality and Contract Management, HR, Communications, Legal, and Sales.

Human rights and labor standards

Respecting and protecting human rights and abiding by global social standards are part of our core values. At G+D, we are committed to complying with nationally and internationally applicable labor and social standards. These include the United Nations' Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, the fundamental principles of the International Labor Organization (ILO), and the UK Modern Slavery Act. We adhere to these ourselves and also expect our business partners to do so. We therefore make sure that human rights principles and social standards are observed both in our day-to-day business operations and when selecting business partners. We comply with the UK Modern Slavery Act and publish an annual statement on our website, in which we commit to transparency around respecting human rights. The statement also explains how we are developing our policies and processes to prevent modern slavery and human trafficking.

When meeting these requirements and complying with standards, we work closely with our suppliers to ensure that this commitment applies throughout our supply chain. Going forward, we will be intensifying our efforts in this area. In addition to requirements arising from the Act on Corporate Due Diligence Obligations in Supply Chains, we are focusing more closely on the influencing factors outside our core business. Two areas of particular importance are conflict materials and the use of chemicals and hazardous materials. We question potential suppliers on both of these as part of our supplier qualification procedure.

Conflict materials when purchasing chip cards

The purchase of chip cards, in particular, calls for careful investigation of conflict materials and how cobalt is procured. We record the materials used in chip card production and ensure that the metals used do not come from conflict zones and are DRC conflict free. In addition, we ensure that smelting works that are directly or indirectly part of our supply chain meet the requirements of the Responsible Minerals Assurance Process or a similar audit program. Our 2022 reporting on conflict materials complies with the requirements of the Dodd-Frank Act.

Data privacy and data responsibility

We have a special commitment to data protection, not least as part of our corporate digital responsibility. This is emphasized in our code of conduct: We protect personal data and shape trust in a digital world.

Clear structures for uniform standards across the Group

Our Group Data Privacy Officer has responsibility for strategically aligning and managing data privacy. To enable us to comply with legal requirements worldwide and meet our high data privacy standards, we have embedded efficient structures and processes in our day-to-day business operations. This includes implementing a global data protection management system to ensure Group-wide data protection and data security standards for the collection, processing, and use of personal data. The data protection management system is supported by our network of local data privacy officers and data protection coordinators, who are available at our subsidiaries to serve as multipliers and points of contact. This internal data privacy network is managed and supported centrally by the Group data privacy team. Regular sharing of knowledge took place again in 2022.

The G+D data protection management system covers the following areas:

- Guidelines for clear rules and processes
- Documentation of all data privacy-related processing activities in the Group
- Creation and management of data processing agreements and the associated documentation
- Detection and processing of data privacy risks
- Assistance with customer inquiries
- Processing of inquiries from data subjects
- Steps to ensure compliance with legally required measures for deletion of personal data
- Internal training and awareness campaigns

Raising employee awareness of data privacy is a particular priority for us. We do this regularly via a range of media formats. In the reporting year, we ran campaigns to make our employees aware of important data protection issues. These included the responsible handling of sensitive data when working from home; data privacy aspects in digital communication, e.g. recording online meetings; and the use of messenger services.



Our approach

For G+D's business activities, data privacy and protecting confidentiality are highly relevant on several levels. We handle the personal data of our employees, our business partners, and in particular our customers with the utmost care and comply with all the relevant laws and regulations.

Handling data securely and responsibly is part of our core business. Our customers entrust us with large quantities of valuable data that must be protected. The highest level of care and compliance with the law are crucial for retaining the trust of our customers and essential for the success of the company. A high standard of data privacy is also an important element of risk prevention for G+D. It enables us to prevent reputational damage and financial loss (e.g. caused by fines).

Our goal

Our goal is to maintain our existing high level of data protection and comply with the Binding Corporate Rules in order to meet the expectations of our employees, customers, and business partners.

Binding Corporate Rules for comprehensive data privacy

G+D is both an autonomous data processor (controller) and a contracted processor (processor). It is therefore essential that we are able to provide our customers with a high level of data protection and prove that we are doing so. The Binding Corporate Rules deliver consistent and comprehensive data protection throughout the entire Group.

Binding Corporate Rules (BCRs) are a regulatory framework developed by the European Commission for legally binding internal company rules on transferring personal data within a corporate group to countries outside the EU/EEA. BCRs must contain all general data protection principles and enforceable rights in accordance with the General Data Protection Regulation (GDPR). They ensure adequate guarantees for data transfers and are officially approved by the relevant European regulatory authorities in a special procedure. They allow multinational corporations to transfer personal data to third countries outside the EU/EEA and help to make intra-group data transfers much easier.

In 2016, the Bavarian State Office for Data Protection Supervision (BayLDA), supported by Italian and French regulators, completed the approval procedure for G+D's BCRs for the role of controller. The approval procedure for the processor BCRs followed in 2018. This made G+D the first company in Germany to have undergone the approval procedure with European regulatory authorities for both controller BCRs and processor BCRs.

All G+D subsidiaries were successfully audited for compliance with the Binding Corporate Rules in the 2022 reporting year.

In addition to the Binding Corporate Rules, which represent the highest data privacy standard within the company, we have also done more work on international data transfers. We are thus able to give our customers additional information that they need to meet their own accountability obligations. As well as information on our BCRs, this includes product and service-specific documentation and data transfer impact assessments, which provide details of relevant data transfers.

Privacy by design and privacy by default

In 2022, there was an increased focus on the concepts of privacy by design and privacy by default. As part of our corporate digital responsibility, we ensure that protection of personal data is firmly embedded in the development of products, solutions, and processes (privacy by design) and also taken into account in configuration options (privacy by default). We have developed a new policy covering these concepts and made our employees aware of the relevant issues in articles published on internal communication platforms. To anchor this knowledge permanently among staff, we have created corresponding information materials and introduced training courses. The concepts have also been incorporated into our internal development processes.

Sustainable financing and investments

Sustainability is firmly embedded in G+D's corporate culture. We incorporate sustainability aspects into all relevant business processes and decision-making procedures. Responsible, value-based, and lawful conduct in our business relationships therefore also extends to our financing and investments. When improving a company's sustainability credentials, it is crucial to consider ESG targets and make an active contribution towards them. This applies to financing by our banking partners and also to future investments by G+D. We believe that sustainable management of future financing and investments strengthens our sustainability and viability as a company. We therefore set ambitious targets in this area in 2022.

Our approach

For future sustainable financing, we include target figures in contracts with our financing partners which – if the target figure is successfully achieved – have a direct impact on the terms. We thus commit ourselves to operating more sustainably and agree to measurement of our performance using verifiable criteria. This also has an economic impact: if we achieve or exceed our targets, we benefit from improved terms. If we fall short, we will suffer accordingly.

G+D understands sustainable investing to mean pursuing a forward-looking investment strategy aimed at achieving long-term, sustainable success. Our investment activities are no longer focused solely on traditional criteria such as security, returns, and liquidity – we now actively include verifiable E (environmental), S (social), and G (governance) criteria in our decision-making processes.

Our goals

Financing

Sustainability aspects are becoming more and more important in financing decisions. Nowadays, actors in financial markets go beyond looking at a company's commercial situation and KPIs; sustainability aspects are also increasingly taken into account. G+D supports this approach and is aligning its financing activities with ESG principles. We therefore aim to work primarily with partners who place as much emphasis on achieving sustainability targets as we do, and whose financing terms are aligned with such targets.

In 2022, we added an ESG component to our existing financing agreement with a bank consortium for the first time. Annual targets were defined for three KPIs. These will be reviewed at the end of each year and the terms adjusted depending on the degree of target achievement. The focus of these KPIs is on targets relating to GHG emissions, diversity, and water consumption.

Investments

By 2030, 95 % of our investments will support G+D's sustainability goals. Since there is currently no universal definition of sustainable investment or any existing best practices, G+D has developed a classification model covering all of the company's investment categories. This includes investments in production facilities and infrastructure, the Group-wide introduction of new IT tools for digitalization, and the purchase of shares in or the acquisition of companies or start-ups.

In 2023, this model will be applied, tested, and refined for all investment categories for the first time. We will check whether and to what extent our investments make a contribution to our sustainability targets and whether any conflicts arise.

As we continue to develop our portfolio, we will pay particular attention to technologies and equity investments that contribute to greater sustainability. Where objectives clash, the ESG Committee has the right to exercise a veto. This approach enables us to prioritize sustainable investment and drive forward change in the economy and society through our commitment.

Classification model for sustainable investments

Category	Focal topic	Criteria
Machines, technical facilities/IT hardware	Climate Water Waste & circular economy	Energy used Energy efficiency Process efficiency Resource efficiency Material used Material source Recyclability Renewable material Compliant suppliers
IT software	Sustainable products and technologies	Energy requirement Efficiency increase
Land and buildings	Diversity, equity, and inclusion Lifelong learning and development	Construction and building standards Location Resources Optimization Certification
Capitalized development costs for hardware/software	Health & safety Compliance & integrity ESG-compatible financing	Sustainable product certification Circular economy Optimized energy consumption Substitute for physical product
Investment in other companies	Digital responsibility	Sustainability rating Sustainability KPIs Potential to support G+D's positioning



Activities of the Giesecke+Devrient Foundation: Celebrating Our Roots – Shaping the Future

The Giesecke+Devrient Foundation was established in 2010 as the main driver for the company's corporate social responsibility commitment. For G+D, doing business always entails social responsibility. This commitment is part of our corporate philosophy and values. The family-owned company's social responsibility activities are brought together under the umbrella of the Foundation, which initiates and runs projects and also collaborates with partners on selected projects. To ensure its activities have an effective and long-lasting impact, the Foundation supports most of its projects over many years.



Funding generally supports culture, the arts, and education as well as international exchange and initiatives that instill intercultural competence in young people. The activities promote intercultural understanding and a vibrant cultural heritage. The Foundation aims to boost mutual understanding, open up new horizons, and support projects that give participants a new perspective.

The G+D Foundation is a member of the Association of German Foundations, which has more than 4,500 members and is the largest and oldest such body in Europe.

Organizational structure of the Foundation

A Board of Trustees decides on all key aspects of the Foundation's affairs and advises and oversees the Executive Committee, in accordance with the Articles of Incorporation. The Board of Trustees also monitors compliance with the founder's intention. The Foundation's Executive Committee has been comprised of two people since 2021. The Executive Committee represents the Foundation in legal matters. It manages the Foundation's day-to-day operations, implements the Board of Trustees' decisions, ensures that the Foundation's purpose is met and manages its assets.

Main focus areas

The majority of the Foundation's funding is devoted to culture and the arts, particularly the printing arts; child and youth education and training, the promotion of international exchange and intercultural skills among young people.

Ever since the company was established, G+D has had strong relations to the arts and in particular to artistic printing techniques. The Giesecke+Devrient Foundation began supporting the Museum of the Printing Arts in Leipzig in 2011. The museum offers an extensive collection of exhibits as well as courses, informational events, and seminars for students and school classes. In the cultural sector, the Foundation has focused in recent years on international exchange programs. These programs are aimed at contributing to understanding and tolerance, peaceful coexistence, and successful collaboration in a globalized world. The Foundation's third priority is education. We facilitate access to education for young people from immigrant backgrounds and those from underprivileged families and promote their personal development.

The Foundation supports various institutions and works with partners to develop projects. In the future, the Foundation intends to concentrate on long-term partnerships in this regard. Through cooperation with an educational charity in Munich, the Foundation seeks to focus the volunteering activities of G+D employees at the Munich site on this cause. G+D covers the cost of half of the time its employees spend on these corporate volunteering activities.

The public visibility of the Foundation is raised through a wide range of activities, including regular communication via social media, arranging press events, and high-profile fundraising activities to increase donations.

Cooperation partners



Goethe-Institut

Since 2011, young people from all over the world have been invited to Germany as part of an intercultural development program. Alongside German classes at the Goethe-Institut, they participate in a wide range of activities designed to broaden their knowledge of German culture and society. Three years ago, an alumni program was established for young people who have already visited Germany as part of the development program, thus expanding its reach.

www.goethe.de



Foundation for the Leipzig Workshop Museum of Printing Arts

One of the main objectives of the G+D Foundation is to preserve the historical heritage of the printing arts. G+D's roots lie in Leipzig, where the company was established in 1852. Since 2010, one of the Foundation's principal funding projects has thus been the Museum of the Printing Arts in Leipzig, which serves as a living venue for printing culture and engages with a broad audience. The Foundation and the museum jointly launched the artist-in-residence support program for artists in 2020. The program gives four contemporary artists the opportunity to undertake a four-week residency at the museum, where they create graphic artworks using historic machines.

www.druckkunst-museum.de



Tatendrang

Collaboration with TATENDRANG began in 2012. The agency coordinates corporate volunteering activities for Giesecke+Devrient.

www.tatendrang.de



Startstark

STARTSTARK works with socially disadvantaged children and young people to facilitate their graduation from a secondary school and transition into the labor market, to take full advantage of opportunities, and to deal with challenges. Together with existing organizations from the deprived neighborhood and working with municipal bodies such as the local citizens' center and other partners, STARTSTARK identifies needs and develops solutions collaboratively with them.

www.startstark.de



Impro macht Schule

The "I'll be..." project was jointly created to help high school students in their penultimate year at a Mittelschule prepare for the world of work. It gives students the opportunity to practice situations that they will encounter in their working lives, such as job interviews and presentations. The participants get to know themselves and learn about body language so they can project more confidence in job interviews and develop greater self-esteem. The project is designed to be a first step towards preparing for a career. The required skills are taught in close collaboration with the school's career guidance team.

www.impro-macht-schule.de



An overview of selected projects

After many projects suffered from restrictions in 2021 due to the pandemic, the work of the Foundation returned to normal in 2022. Below, we present a selection of projects in the fields of art, education, and culture:

Development program for young people in conjunction with the Goethe-Institut

The Foundation has been working with the Goethe-Institut since 2011 to deliver an international development program for young people. Each year, 15- to 18-year-olds from around the world travel to Germany to complete a language course and learn about Germany and its culture. The program sponsors young people from different parts of the globe, thereby contributing to the intercultural competence of the participants. Starting in 2016, the Foundation expanded the program to include an annual alumni program, during which four former development program participants complete an internship at G+D, along with an intensive German language course. A highlight of 2022 was the visit of 19 young people from Ghana, Colombia, and Romania, who came to Germany in July for a three-week cultural and language stay as part of the development program. The participants were extremely positive about the experience. On one of the weekends, the young people were hosted by G+D employees and their families.

Museum of the Printing Arts Leipzig

In 2020, the Museum of the Printing Arts and the Foundation launched an artist-in-residence program that brings four artists to the museum for a four-week residency. During their time at the museum, they deepen and develop their knowledge of printmaking techniques. The works created by the grant recipients are displayed as part of a final exhibition. We ran this program for the third time in a row in 2022. The fourth round of the artist-in-residence program will be announced in the course of 2023.



Impro macht Schule

In the field of education, we further expanded our collaboration with the “Impro macht Schule” initiative. Using improvisational theatre techniques, the initiative supports the academic and social development of children and young people at high schools in Munich. This helps children and young people develop greater confidence, self-respect, and respect for others. Its aim is to help them transition to working life. In 2023, the G+D Foundation will become a permanent cooperation partner of “Impro macht Schule” and help to shape strategic development of the initiative going forward.

Tutor's Academy (Lernpaten-Akademie)

At the beginning of 2015, the Lernpaten-Akademie in Munich was launched by the Pädagogisches Institut München and Tatendrang volunteer agency, supported by the Foundation. The Lernpaten-Akademie offers free training for volunteers who provide learning support. From educational theory, German, and math to intercultural studies, anyone who is an unpaid learning mentor, reading assistant, or language volunteer can use the Lernpaten-Akademie's courses, training, and workshops to gain valuable insights and tips. The activities are fully funded by the Foundation.

Support for the Kolibri Foundation's “Music Integrates” project

The intercultural Kolibri Foundation works to promote understanding between people of different nationalities and cultures. It supports foreign citizens and refugees in Munich through a variety of projects and initiatives. The Foundation thus contributes towards successful integration and increases the chances of individuals having a secure future in Germany. On March 7, 2022, the Kolibri Foundation invited around 500 vocational school students from various countries of origin to a concert by the “Neue Philharmonie” Munich at the Herkulesaal concert hall. The project was aimed at supporting integration, creating a shared experience, and promoting the students' understanding of music. The Foundation provided a financial contribution. In 2023, 500 school students will once again have the opportunity to take part in an event of this kind with support from the Foundation.

Ukraine fundraising campaign

2022 was marked above all by the start of Russia's war of aggression against Ukraine, a war that is causing immeasurable suffering for the people of Ukraine and having a profound impact worldwide. G+D and the Foundation have jointly launched a fundraising campaign to raise money for the UN Refugee Agency's Ukraine appeal. In all fundraising projects supported by G+D, the focus is on humanitarian aspects. Our main objective has always been to help the suffering population to the best of our ability.

The Foundation set up a special donation account for this purpose. We called upon the company's employees in Germany to voluntarily donate an amount of their choice to the account. G+D matched each euro received and also donated an additional sum of EUR 100,000. As a result of the campaign, the Foundation was able to give a total of EUR 435,000 to the UN Refugee Agency for humanitarian aid in Ukraine. The UN Refugee Agency protects and supports people who have fled violence, persecution, or war. In crisis situations, like the current Russia-Ukraine war, it works locally to provide essential supplies, including drinking water, emergency accommodation, blankets, and medical assistance.

Activities in Erziehungshilfezentrum Adelgundenheim

G+D supports the social commitment of its employees by "donating" half the time they spend on community-focused activities. Staff members are entitled to take up to two days a year, known as Social Days, to participate in voluntary social projects. Since 2021, a Munich-based educational charity – Erziehungshilfezentrum Adelgundenheim – has been the nominated good cause for G+D's corporate volunteering program. The charity was selected as the result of an employee survey in 2021. All Social Day activities are carried out together with this organization. In May 2022, G+D staff members made it possible for the old sand in the courtyard of the children's center to be replaced with new sand. This project was financially supported by the Foundation. In conjunction with the BayWa Foundation, a nutrition workshop was also held, in which children attending the special education day care center used all their senses to learn about a balanced diet. Vegetable and herb beds were also planted. Other Social Days in 2022 had to be canceled due to the pandemic.

Giving Tuesday

Giving Tuesday is a global day of giving that celebrates and encourages generosity, commitment, and solidarity. It is no coincidence that Giving Tuesday is held in November each year. The timing is deliberate as it comes after the high levels of consumer spending associated with Thanksgiving, Black Friday, and Cyber Monday. Giving Tuesday was held on November 29 in 2022.

On this day, G+D and the Foundation once again decided to hold a fundraising campaign at our Munich site. By saying "Round it up, please!" employees were able to round up their checks in the company restaurant and coffee bar to a total of their choosing, with the extra money going to support the Foundation's projects. The directors of the Foundation were present in the restaurant during the lunch break to provide support and answer questions about the Foundation's activities. The Foundation raised more than EUR 700 in donations in three hours.

Appendix

About this report

Only through transparency we will succeed in earning the trust of customers, partners, employees, and society. In line with the different interests and requirements of our stakeholders, we report on the many aspects of our business in various formats. We document G+D's financial KPIs and developments in our annual report. Our commitment to responsible and sustainable conduct is set out in this sustainability report and also in our progress report for the United Nations Global Compact. We also report on many other business activities through our press and publicity work.

This sustainability report is divided into the categories environmental, social, and governance for the first time; however, it builds on the activities and reports of previous years. It covers all parts of the Group. In the sustainability report, we provide information on our sustainability strategy and our management model as well as on our goals and the measures by which we aim to achieve them. We document our progress transparently using fact-based, specific KPIs.

The data collected for 2022 gives us a new dataset within the Group, which provides the baseline for our future performance.

The following special effects must be taken into consideration due to our new sustainability strategy and the associated changes to the dataset:

- The strategic sustainability targets were completely revised in 2022, and new targets were defined (see section on the ESG dashboard in the "Our Sustainability Management System" chapter).
- We have included more locations in our reporting.
- To improve data quality and comparability, the collected data and its analysis is more closely aligned with the requirements of the Global Reporting Initiative (GRI). This has resulted in some changes with regard to collection and calculation methods. We will continue this process, particularly in relation to scope 3 emissions.

Due to these special effects, there is limited data comparability with the previous year. In some cases, no historic data is available for the targets and KPIs that were added in the reporting year.

The following effects arose as a result of special situations in our corporate environment:

- Due to the energy crisis and associated severe shortage of gas supplies in the markets, both we and our key energy suppliers had to adjust the energy mix. Emissions values (particularly for scope 2) deteriorated due to the shift from gas to oil or coal. Given the quantities required and the need for operational reliability, it was not possible to cover the resulting deterioration in the short term by generating electricity from renewable energy sources.
- Materials for implementing some infrastructure projects were not available due to supply chain disruption caused by the Russia–Ukraine war, resulting in delays to these projects.

The reporting period covers the 2022 fiscal year (January 1 to December 31). The editorial deadline was February 28, 2023.

The sustainability report is available in German and English. In the event of discrepancies, the German version takes precedence.

If you have any questions or comments, please contact sustainability@gi-de.com.

Overview of G+D sustainability KPIs

KPI	Unit	2022	Change over previous year (%)	2021	2020
Environmental – Climate (*)					
Energy consumption (total)	kWh	352,279,356	2	345,215,730	324,610,829
Scope 1: Direct GHG emissions	tCO ₂ e	30,089	0.9	29,833	26,893
Scope 2: Indirect energy-related GHG emissions	tCO ₂ e	53,729	2.5	52,408	56,796
Scope 3: Other indirect GHG emissions	tCO ₂ e	223,813	2.5	218,272	215,268
Total emissions	tCO ₂ e	307,630	2.4	300,513	298,957
Scope 1 + 2 emissions in relation to sales	tCO ₂ e/ million sales	33.2	-4	34.6	39.5
Environmental – Water					
Water withdrawal	m ³	3,229,614	11.4	2,900,354	2,082,866
Water discharge	m ³	2,794,917	—	(1)	(1)
Water consumption	m ³	434,517	—	(1)	(1)
Amount of re-used water	m ³	5,639,447	—	(1)	(1)
Amount of re-used water as a proportion of total water consumption	%	63.6	—	(1)	(1)
Environmental – Waste					
Non-hazardous waste	Metric tons	12,234	-7	13,154	13,712
Hazardous waste	Metric tons	3,897	3.3	3,773	3,704
Waste (total)	Metric tons	16,131	-4.7	16,928	17,417
Hazardous waste as a proportion of total waste	%	24.2	1.9	22.3	21.3
Waste sent to landfill	Metric tons	1,502	—	(2)	(2)
Waste sent to landfill as a proportion of total volume of waste	%	9.3	—	(2)	(2)
Social – DE&I					
Number of employees with disabilities	#	287	34.7	213	193
Employees with disabilities as a proportion of total workforce	%	2.6	0.1	2.5	2.4
Proportion of female employees in executive management (EM)	%	9.7	-3.2	12.9	14.7
Proportion of female employees in line management (LM)	%	21.7	—	(3)	(3)
Proportion of female employees in leadership positions (EM + LM)	%	20.7	4.1	16.6	16.1
Female employees as a proportion of total workforce	%	30.5	—	(3)	(3)

KPI	Unit	2022	Change over previous year (%)	2021	2020
Social – Training & learning					
Number of training topics offered	#	28,510	-9.7	31,575	25,805
Number of training hours per year and employee	Hours	10.8	27.1	8.5	10.3
Social – Health & safety at work					
Work-related injuries	# per 100 employees	0.7	-36.4	1.1	0.9
Working time lost due to work-related injuries (Lost Time Injury Rate, LTIR)	#	0.8	-50	1.6	1.2
Lost Workday Rate (LWR)	#	15	-17.6	18.2	14.9
Total Recordable Cases Rate (TRCR)		1.5			
Total Recordable Injury Rate (TRIR)	#	1.4	—	(4)	(4)
Proportion of employees working at a site certified under ISO 45001 or a site regarded as certifiable (G+D Group overall)	% of employees	76	—	(5)	(5)
Proportion of employees working at production and operational sites with 50+ employees where site is certified under ISO 45001 or regarded as certifiable	% of employees	77	—	(5)	(5)

- (1) The relevant annual values are not comparable with the reporting year due to expansion of the organizational scope and improved data acquisition methods.
- (2) The relevant annual values are not available because the KPI was not introduced across the Group until 2022.
- (3) The relevant annual values are not comparable with the 2022 reporting year due to expansion of the organizational scope.
- (4) The relevant annual values are not available because the KPI was not introduced across the Group until 2022, and the data is not available retrospectively across the Group.
- (5) The relevant annual values are not comparable with the reporting year due to expansion of the organizational scope and improved data acquisition methods.
- (*) Supplementary information on the fundamentals for calculating energy consumption and GHG emissions:
 - Emissions are calculated and analyzed based on the GHG Protocol Corporate Accounting and Reporting Standard
 - For GHG accounting, the operational control approach applies
 - Scope 1 and 2 emissions are considered
 - Scope 2 emissions are calculated based on market and location. Data sources for emission factors include the International Energy Agency (IEA), US EPA4, and GaBi
 - For scope 3 emissions, the categories considered are goods and services purchased, fuel and energy-related activities, business travel, and waste
 - Data was collected by local G+D employees
 - Data and supporting documentation are managed using web-based SpheraCloud corporate sustainability software. In addition to data collection and management, this is also used for plausibility checks and data analysis.



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