



02 SUSTAINABILITY

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You can find the full Sustainability section of the Annual Report 2023 and more information on our website.

2023: SUSTAINABILITY AT A GLANCE

Addressing the environmental impact of our own operations

19%

reduction in **Scope 1 emissions** and **Scope 2 emissions** (market-based) compared to 2019 baseline.

692

employees received food safety training

92%

of suppliers signed Bühler's Supplier Code of Conduct



370

employees received sustainability training

33%

less water consumption at our manufacturing sites and offices compared to 2019 baseline

12%

reduction of waste generated in our operations and offices compared with 2019 baseline



Our solutions and services for impact – Bühler's biggest lever

459,643 m³

of water per year saved in installed base in malting process

30% less fresh water in processing per tonne of malt



8,070

tonnes – newly built annual production capacity for processing plant-based meat analogues

With potential of 90% lower emissions by shifting from beef to plant-based

12,900

tonnes of CO₂e/year – saved due to coated architectural glass

46% less energy use in buildings



12

number of solutions that contribute to land use reduction, side stream utilization, and circularity

77

Bühler solutions quantified for CO₂e impact in operations

470,740

tonnes of CO₂e/year – saved in installed base in wheat milling process

10% energy reduction in milling

1,333

tonnes of CO₂e/year – emissions saved due to material circularity in re-manufacturing of die-casting machines

67% lower emissions and 33% less waste per machine

OUR SUSTAINABILITY STRATEGY

Our goals

We have made the following commitments:

- We committed to developing a pathway to achieve a 60% reduction of greenhouse gas emissions in our own operations by 2030 (Greenhouse Gas Protocol Scopes 1 & 2, 2019 baseline).
- We committed to having solutions ready to multiply by 2025 that reduce energy, waste, and water by 50% in the value chains of our customers (our 50/50/50 goal).
- We proactively collaborate with suppliers to reduce climate impacts throughout the value chain.

We continue to improve the robustness of our company CO₂e footprint and have updated the baseline figures. Our Scope 3 use of sold goods is orders of magnitude higher than the remainder of our footprint and this is where, through our products and services, we can bring the greatest absolute reduction.

Reducing the CO₂e footprint of our use of sold goods is the focus of our product and service development and underpins our business strategy. This addresses not only new products, but also the global installed base of our customers. With our investments in new application centers, partnerships, and companies in the sus-

tainable protein and side stream utilization space, we aim to enable waste elimination and dietary change thereby accelerating the development of a more sustainable food industry.

Transition plans to meet our goals

Reducing the impact of our own operations

Our transition plan towards a low-carbon economy includes our 2030 target of a 60% reduction in Greenhouse Gas Protocol Scopes 1 & 2 emissions in our own operations using the market-based method.¹ This target is measured against our baseline set in 2019. To achieve this target, we have not only set an interim target of reducing Scopes 1 & 2 emissions by 25% by 2025, but also defined a pathway. Our pathway is based on reduction of energy consumption and the adoption of renewable energy sources. Additionally, we have developed an energy policy that sets the framework for renewable energy procurement. Key actions on our pathway are the following:

- Reducing the energy consumption in heating and manufacturing processes in our manufacturing sites and sales offices.
- Taking up opportunities to switch energy sources to greener alternatives (e.g., on-site electricity generation, alternative fuels, etc.).

¹ Market-based emissions are emissions calculated using the emission factor given by the energy provider or taking into account any purchased green electricity certificates. They are therefore not identical with the actual grid mix of renewable electricity in the physical location.

- Reducing our manufacturing and sales offices grid electricity by sourcing more emission free electricity.

With our 60% reduction target we are notably more ambitious than the best practice required by the Science Based Targets initiative (SBTi), which requires a 46.5% reduction. Nevertheless, we believe that with our pathway, which we revise continuously and implement, we will be able to achieve our goal.

Our 50/50/50 goal

As a company, we strongly believe that we can achieve a greater impact by enabling our customers across the value chain in transitioning to a low-carbon economy. Our 50/50/50 goal encapsulates this ambition. We have set up a clear governance structure and lines of responsibility for achieving these targets.

Collaborating with suppliers

We have set priorities on engaging with suppliers who have already established targets and those with heavy emitting processes.

MATERIALITY ASSESSMENT: A STAKEHOLDER PERSPECTIVE

To see the detailed results of this analysis, please refer to the full materiality assessment.

Providing the overall guidance of Bühler's sustainability strategy, the materiality assessment was conducted in 2020 by bringing together key stakeholders of the company. For the 2020 materiality assessment, Bühler sustainability team asked internal and external stakeholders to share their perspective on the company's biggest impact areas. Balancing the needs of economy, humanity, and nature, 48 topics were predefined, using the materiality assessment topics based on the GRI standard and as well strongly individualizing them to fit Bühler's business. The goal was to lower the risks of blind spots and increase global reach, therefore customers, various business areas and functions, partners from NGOs, and academia were all considered.

These three questions guided through each topic:

1. How significant is the impact of Bühler in these topics?
2. How significant is the impact of these topics on Bühler?
3. How important is it for you that Bühler targets these topics?

The highest ranked topics in the areas of economy, humanity, and nature.

The top four for economy:

1. Assessment of corruption risks and incidents in operations
2. Designing sustainable solutions
3. Ethical non-compliance reporting
4. Addressing customers' concerns related to sustainability

The top three for humanity:

1. Zero tolerance towards discrimination
2. Zero tolerance towards human rights violations
3. Ensuring equal and fair payment

The top four for nature:

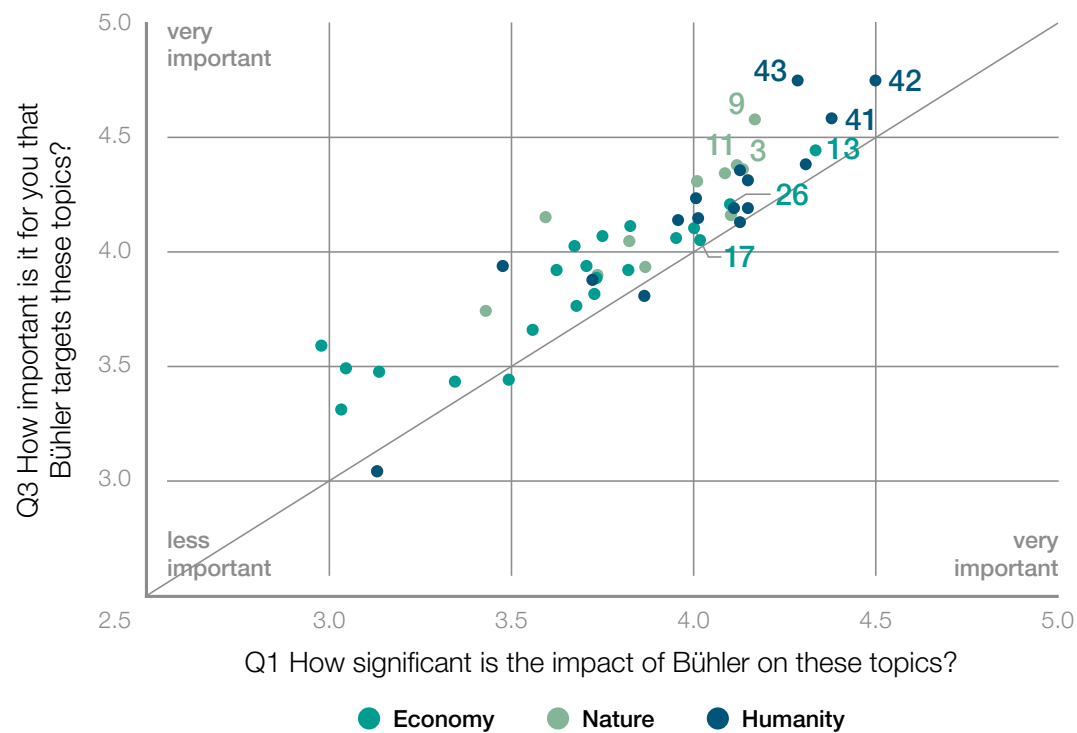
1. Energy consumption reduction within the value chain
2. Reducing greenhouse gas emissions in the value chain
3. Waste reduction within the value chain
4. Water usage reduction within the value chain

Based on these priorities, we are readjusting our KPIs and are steering our actions for the next five years.



Find more information about the materiality assessment on our website.

Impacts of Bühler and perception of all stakeholders



REPORTING OF TRACKED INDICATORS

2023 was the third year of our 5-year reporting cycle for the period 2021-2025. In total, 56 KPIs have been disclosed this year, with the intention to increase this over the course of the coming reporting cycles.

In 2023 we continued improving our reporting methodology across all categories relevant to our company footprint, in particular all 30 manufacturing sites.

The following reporting is based on full calendar year data, providing a basis for more reliable absolute figures.

Bühler's focus on employee occupational health and safety

In 2023, the success curve we have established in recent years in reducing occupational accidents remained at the same level. The establishment of the 10 Lifesaving Rules and the Factory Safety Standards have clearly contributed to our journey to "Zero harm". However, the fact that our progress in reducing occupational accidents has stagnated in 2023 demonstrates to us that we need to put renewed emphasis on safety awareness and safety culture. Bühler's entire management team is committed to this goal and has taken up this challenge.

Furthermore, a maturity assessment was carried out with Environment, Health, and Safety (EHS) leaders across the Group in 2023 and revealed, among other issues, the need for a global harmonization of health and safety including standards, processes, rules, and management systems. The results were analyzed and, on this basis, the future [EHS strategy](#) of the Group will be defined.

Bühler's commitment to compliance

Bühler's commitment to remain compliant and address issues which could compromise its business practices and those of its stakeholders has always been a top priority. Moving into the new reporting period, this continues to be the case, with further steps taken to build strong governance and awareness of the conduct of actions. This is reflected in the tracked indicators.

The drive for stronger social responsibility is reflected in the high percentage (> 98%) of our global employees who have completed the required compliance training. This was achieved through a coordinated program across all functions and businesses in the regions. Further actions to stabilize and increase the completion rate have been implemented such as an automated de-activation process of the Windows account for employees who do not complete the mandatory e-learning within the given timeframe. A similar process is in preparation for external users.

More information about Bühler's commitment to compliance can be found in the [Governance section](#).

Measuring and managing Bühler's impact on nature

Understanding and reducing the environmental impact of our own operations and business is integral to our work on sustainability at Bühler.

With regard to the emissions resulting from the Group's energy consumption, we have committed to a 60% reduction of greenhouse gas emissions in Scopes 1 and 2 by 2030. This is in com-

parison to a baseline year 2019. To reach this target, our priority is currently on reducing energy consumption in our manufacturing processes and buildings. Therefore, we also measure energy consumption relative to various indicators such as manufacturing hours. Following this, we investigate alternative, greener sources of energy, and after evaluating these options, we look at procurement of green electricity through certificates.

Looking at our wider impact on the environment, we also work to reduce water consumption and waste production. We are also working to introduce metrics to measure and improve biodiversity at our sites.

In purchased goods and services, we continue to measure our emissions and work to introduce a hybrid measurement system combining primary data from suppliers and global averages. In logistics, we also continue to improve our quantification methodology, and in 2023 gained external verification of our reporting from Systain.

By far the largest potential climate impact that Bühler can have is in enabling emissions reductions for sold goods in customer operations and increasing the efficiency of its installed base. Bühler focuses on implementing innovative solutions and services for energy efficiency, higher yield, and waste reduction through circularity. This is why Bühler has set goals to have solutions ready to multiply by 2025 that reduce energy, waste, and water by 50% in the value chains of our customers (the 50/50/50 goal). Find more information

on how we plan to achieve this in [our solutions and services for impact](#) section.

Bühler is committed to protecting and restoring biodiversity and is collaborating with Prof. Tom Crowther (ETH Zurich) and Restor to set up a science-informed program to identify suitable projects, which we can work with directly, that protect and restore nature. In 2023 we have identified a number of initial projects and continue to learn more about our potential contribution. We expect to be able to report more in 2024.

Partnering to accelerate impact

In the new reporting period, Bühler benefited from existing partnerships and created new partnerships to gain access to the skills and capabilities to deliver our targets for business growth and sustainability impact hand in hand. Partnerships are counted that have contracts in place, require resource allocation, both financial and human, from both parties and result in an acceleration of impact. Partnerships are reported in more detail in the section [Partnerships with Purpose](#).

Engaged employees and an inclusive culture of high performance

In the new reporting period, Bühler laid continued focus on the reporting of the social KPIs to reflect our values of Trust, Ownership, and Passion (TOP) and our efforts to build a people-centric culture

that puts the full person, their health and wellbeing, in the center and builds the basis for their safety and high performance at work. This includes the focus on fostering a fair and equal workplace for all through the Bühler Diversity, Equity & Inclusion program. With programs such as Allyship for Leaders, the Beyond Bias workshop series, and the Women in STEM initiative and Employee Resource Groups, we aim to nurture an inclusive diverse work culture for all employees, partners, and customers. Learning and development remains core and receives continued focus at Bühler. Bühler executes on its lifelong learning commitment through apprenticeship programs, leadership development programs at all levels, and technical training offerings for employees at all stages of their career through a global network of Application & Training Centers and training schools complemented by learning and development modules on our global B-Learning portal. Training is available for employees, customers, and partners.

The Bühler Destination 25 strategy includes the defined targets for HR, and these are reflected in the tracked KPIs.

This year, Bühler reported a defined set of HR KPIs as “where we stand” and will further elaborate on refining these KPIs as “where we want to be”, with the setting of annual targets, actions to reach them, and support for the business with data which helps to drive profitability. The focus this year was to continue to improve data quality and establish key dashboards to provide leaders with direct access to the KPIs.

Bühler continues to track its efforts through a set of standard HR KPIs to facilitate business strategy execution and help leaders make informed decisions and take corrective actions to drive performance and profitability.

More information on how Bühler fosters a TOP culture of inclusive diversity, health, safety, and wellbeing, as well as lifelong learning and actions towards it can be found in [Our People](#).

Commitment to transparency

Recognizing the importance of best industry practices and the need to undergo Corporate Social Responsibility (CSR) rating exercises, Bühler has continued to undergo certification by recognized industry bodies such as EcoVadis, CDP (Carbon Disclosure Project) and the Drive Sustainability Program, as well as undergoing several on-site assessment programs, such as ISO 9001; ISO 14001; ISO 45001; SEDEX (Supplier Ethical Data Exchange) / SMETA (SEDEX Members Ethical Trade Audit) 4-pillar.

More detail on the work done to drive transparency can be found under [certificates](#).



ECONOMY KPIs

Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	2023
Direct economic value generated: revenue	201-1	mCHF	N/A	3,009
Economic value distributed: operating costs, employee wages and benefits, payments to providers of capital and payments to government	201-1		N/A	
Total		mCHF		2,775
Operating costs		mCHF		1,692
Employee wages and benefits		mCHF		1,005
Payments to providers of capital		mCHF		27
Payments to government		mCHF		51
Economic value retained: 'direct economic value generated' less 'economic value distributed'	201-1	mCHF	N/A	1,486
Accelerate turnover growth in region Middle East Africa & India and create better balance in geographical diversification of Bühler		% of turnover	N/A	16
Number of Bühler sites internally audited on financial, operational, and compliance risk management	205-1	#	Best practice in definition with peers	8
Total percentage of employees who finalized the compliance training broken down by region:	205-2	%	100	
North America		%		99.6
South America		%		99.7
Europe		%		98.9
Middle East Africa & India		%		99.5
Asia		%		99.8



NATURE KPIs

Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	Baseline year 2019 ¹	2023
Number of Bühler solutions quantified for CO ₂ e impact in operations		#	N/A		77
Amount of estimated avoided emissions from selected services and technologies installed in 2022		t CO ₂ e/year	N/A		47,631
Employees involved in the Innovation Challenge		%	50		53
Employees involved in Generation B		%	20		18
Significant partnerships reducing atmospheric CO ₂ e levels		#	N/A		3
Significant partnerships improving access to nutrition		#	N/A		2
Significant partnerships for education		#	N/A		11
Significant partnerships supporting biodiversity		#	N/A		1
Significant partnerships supporting start-ups		#	N/A		7
Energy consumption within the organization	302-1	GJ	Best practice based on operational and environmental risk	674,280	581,760
Total water withdrawal from all areas	303-3	m ³	Best practice based on operational and environmental risk	373,950	252,423
Total water withdrawal from areas with water stress ²	303-3	m ³	Best practice based on operational and environmental risk	68,724	121,425

¹ In accordance with best practice in sustainability, each year we refresh our baseline data based on current understanding, more-informed data quality, and new learnings.

² We define a water stress area as one with a risk of 3 or higher according to the Water Risk Atlas of the World Resources Institute. More areas have been classified as having water stress in 2023 compared to 2019.



Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	Baseline year 2019 ¹	2023
Gross direct (Scope 1) GHG emissions	305-1	t CO ₂ e	Scope 1 & 2 (together) -60% by 2030	18,029	16,663
Gross indirect (Scope 2) GHG emissions – location based	305-2	t CO ₂ e	Target refers to market based	49,887	40,846
Gross indirect (Scope 2) GHG emissions – market based	305-2	t CO ₂ e	Scope 1 & 2 (together) -60% by 2030	40,651	30,562
Gross indirect (Scope 3) GHG emissions	305-3	t CO ₂ e	See individual subcategories	771,458	715,880
Gross indirect (Scope 3) GHG emissions – purchased goods and services	305-3	t CO ₂ e	Best practice based on operational and environmental risk	528,000	500,000
Gross indirect (Scope 3) GHG emissions – capital goods	305-3	t CO ₂ e	Best practice based on operational and environmental risk	0	26,967
Gross indirect (Scope 3) GHG emissions – fuel and energy related activities	305-3	t CO ₂ e	Best practice based on operational and environmental risk	1,514	1,870
Gross indirect (Scope 3) GHG emissions – upstream transportation & distribution	305-3	t CO ₂ e	Best practice based on operational and environmental risk	41,000	28,000
Gross indirect (Scope 3) GHG emissions – waste generated from operations	305-3	t CO ₂ e	Best practice based on operational and environmental risk	5,934	4,760
Gross indirect (Scope 3) GHG emissions – business travel	305-3	t CO ₂ e	N/A	Not reported this year	28,700
Gross indirect (Scope 3) GHG emissions – employee commuting	305-3	t CO ₂ e	N/A	Not reported this year	Not reported this year

¹ In accordance with best practice in sustainability, each year we refresh our baseline data based on current understanding, more-informed data quality, and new learnings.



Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	Baseline year 2019 ¹	2023
Gross indirect (Scope 3) GHG emissions – upstream leased assets	305-3	t CO ₂ e	Best practice based on operational and environmental risk	133	110
Gross indirect (Scope 3) GHG emissions – downstream transportation & distribution	305-3	t CO ₂ e	Best practice based on operational and environmental risk	195,000	125,473
Gross indirect (Scope 3) GHG emissions – use of sold products	305-3	t CO ₂ e	N/A	Not reported this year	Not reported this year
Gross indirect (Scope 3) GHG emissions – end of life treatment of sold products	305-3	t CO ₂ e	N/A	Not reported this year	Not reported this year
GHG emissions intensity ratio for the organization	305-4	t CO ₂ e/1000h	N/A	11.7	11.4 ²
Total weight of waste generated	306-3	t	Best practice based on operational and environmental risk	17,283	15,381
Total weight of waste generated – non-hazardous waste diverted from disposal	306-4	t	Best practice based on operational and environmental risk	13,967	12,363
Total weight of waste generated – hazardous waste diverted from disposal	306-4	t	Best practice based on operational and environmental risk	0	207
Total weight of waste generated – non-hazardous waste directed to disposal	306-5	t	Best practice based on operational and environmental risk	2,427	2,057
Total weight of waste generated – hazardous waste directed to disposal	306-5	t	Best practice based on operational and environmental risk	889	754
Percentage of top suppliers who have signed the Bühler supplier code of conduct or have an equivalent code	308-1	%	N/A	50	92

¹ In accordance with best practice in sustainability, each year we refresh our baseline data based on current understanding, more-informed data quality, and new learnings.

² To improve accuracy, this year the calculation is based on Scopes 1 & 2 emissions associated with manufacturing facilities, divided by total productive internal manufacturing hours.



HUMANITY KPIs

Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	2023
Total leavers as a percentage of workforce	401-1	%	N/A	11.6
Rate of attrition	401-1	%	N/A	6.0
Percentage of apprentices who are hired subsequently to their apprenticeship (Uzwil)	401-1	%	N/A	81.97
Percentage of workers trained on occupational health and safety	403-4	%	N/A	90.55
Work-related injuries (TRI rate) ¹	403-9	#	0	0.94 ¹
Percentage of training costs per total personnel costs	404-1	%	Best practice in definition with peers	0.75
Number of training days per full-time employee per year	404-1	#	Best practice in definition with peers	1.81
Total number of new employees hired during the reporting period by region and globally split by:	401-1		Best practice in definition with peers	
	Total	#		1,264
	Global	#		289 975
	North America	#		29 124
	South America	#		24 61
	Europe	#		165 521
	Middle East Africa & India	#		40 183
	Asia	#		31 86

Region and gender
(female | male | not assigned)

¹ Total recordable incident rate (TRIR) is defined as the number of work-related injuries per 100 full-time workers during a one-year period.



Key performance indicator (KPI)		Reference to GRI Standards	Unit/Metric	Target 2025	2023
Total number of new employees hired during the reporting period by region and globally split by:		401-1		Best practice in definition with peers	
Region and born today – 1996	Global		#		396
	North America		#		52
	South America		#		29
	Europe		#		221
	Middle East Africa & India		#		65
	Asia		#		29
Region and born 1981 – 1995	Global		#		617
	North America		#		64
	South America		#		48
	Europe		#		303
	Middle East Africa & India		#		131
	Asia		#		71
Region and born 1965 – 1980	Global		#		222
	North America		#		32
	South America		#		8
	Europe		#		140
	Middle East Africa & India		#		27
	Asia		#		15



Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	2023
Total number of new employees hired during the reporting period by region and globally split by:	401-1		Best practice in definition with peers	
		#		29
		#		5
		#		0
Region and born 1964 and earlier		#		22
		#		0
		#		2
Total number of employee turnover during the reporting period globally and by region split by:	401-1		Best practice in definition with peers	
		#		1,496
		#		293 1,203
		#		25 130
Region and gender (female male)		#		19 51
		#		153 568
		#		29 111
		#		67 343



Key performance indicator (KPI)		Reference to GRI Standards	Unit/Metric	Target 2025	2023
Total number of employee turnover during the reporting period globally and by region split by:		401-1		Best practice in definition with peers	
Region and born today – 1996	Global		#		155
	North America		#		32
	South America		#		13
	Europe		#		78
	Middle East Africa & India		#		6
	Asia		#		26
Region and born 1981 – 1995	Global		#		689
	North America		#		52
	South America		#		36
	Europe		#		310
	Middle East Africa & India		#		97
	Asia		#		194
Region and born 1965 – 1980	Global		#		400
	North America		#		43
	South America		#		16
	Europe		#		189
	Middle East Africa & India		#		25
	Asia		#		127



Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	2023
Total number of employee turnover during the reporting period globally and by region split by:	401-1		Best practice in definition with peers	
	Global	#		252
	North America	#		28
	South America	#		5
Region and born 1964 and earlier	Europe	#		144
	Middle East Africa & India	#		12
	Asia	#		63
Percentage of employees by gender total for the following categories:	405-1		Best practice in definition with peers	
	North America	%		15 85
	South America	%		16 84
Region and gender (female male)	Europe	%		18 82
	Middle East Africa & India	%		11 89
	Asia	%		19 81
Percentage of employees by gender total for the following categories:	405-1		Best practice in definition with peers	
	Born today – 1996 (female male)	%		19 81
	Born 1981 – 1995 (female male)	%		20 80
	Born 1965 – 1980 (female male)	%		16 84
	Born 1964 and earlier (female male)	%		12 88



Key performance indicator (KPI)	Reference to GRI Standards	Unit/Metric	Target 2025	2023
Percentage of employees by gender of supervisors for the following categories:	405-1		Best practice in definition with peers	
Region and gender (female male)	North America	%		18 82
	South America	%		20 80
	Europe	%		13 87
	Middle East Africa & India	%		9 91
	Asia	%		19 81
Percentage of employees by gender of supervisors for the following categories:	405-1		Best practice in definition with peers	
	Born today – 1996 (female male)	%		0 100
	Born 1981 – 1995 (female male)	%		17 83
	Born 1965 – 1980 (female male)	%		14 86
	Born 1964 and earlier (female male)	%		9 91
Number of relevant fines for non-compliance with laws and regulations in the social, economic and environmental area (>CHF 200,000)	419-1 & 307-1		Best practice in definition with peers	
	Total	#		0
	Social	#		0
	Economic	#		0
	Environment	#		0

ADDRESSING THE ENVIRONMENTAL IMPACT OF OUR OPERATIONS

We have developed a pathway to achieve a 60% reduction of greenhouse gas emissions in our own operations by 2030.¹ We are also addressing energy, waste, water, and the associated emissions.

Emissions, energy, waste, and water

Why it matters and our approach	+ GRI disclosure 302, 303, 305 and 306
What we achieved	+ Emissions
	+ Energy
	+ Waste
	+ Water
	+ Impact on the SDGs

Find full information about emissions, energy, waste, and water on our website.

¹ Greenhouse Gas Protocol Scopes 1 & 2, 2019 baseline.

OUR SOLUTIONS AND SERVICES FOR IMPACT

Every day, the food, feed, and materials processed on Bühler technologies help to feed an estimated 2 billion people and provide mobility for 1 billion people. With this global reach comes responsibility. This is why Bühler has set goals to have solutions ready to multiply by 2025 that reduce energy, waste, and water by 50% in the value chains of our customers (our “50/50/50” goals). Bühler has also expanded its service portfolio to improve the performance and productivity of the existing installed base of our customers as services are key enablers to making assets more efficient and sustainable. With an installed base of 1 million machines and 30,000 customers, our services have the potential to drive significant positive impact. Our environmental quantification program provides the foundation for this. Read about our methodology and examples here.

In doing so, we support our customers in reaching their sustainability targets, minimizing their greenhouse gas emissions, and mitigating the impacts of climate change. We believe it is only through ambitious targets that we will be able to sustainably feed and transport a growing global population by 2050. Read about our [Environmental Impact Services](#) for customers here and how we can support them in their sustainability journey.

Our environmental quantification program

To achieve these goals and to better understand our impact, Bühler launched its environmental quantification program in February 2020, to quantify the CO₂e footprint of the products processed through our technology, and the impact of our solutions and services on the CO₂e footprint of our customers' finished products.

Mitigating climate change is complex and will not be achieved if we are unable to measure the impact of our actions. The purpose of Bühler's environmental quantification program is to achieve just that. Measuring emissions is the priority in the emissions hierarchy. We have placed a major focus on quantifying the emissions occurring in the entire value chain and identifying the carbon hotspots and then taking appropriate action to maximize avoidance and reduction of CO₂e through services for more efficient processing, new solutions, and renewable energy sources. For this, Bühler quantifies the impact of our new solutions compared to previous solutions in order to track our progress toward our 50/50/50 goals as well as the corresponding CO₂e reduction potential.

Since 2022, we have included land use and water as important indicators in our environmental quantification program to understand the impact on biodiversity. Using insects to produce animal feed is an example of a solution that has the potential to contribute to saving land and, in turn, to creating a positive impact on biodiversity. We have also quantified our high impact solutions and services

that increase circularity. The circular economy, or circularity, aims to extend the lifespan of products through repair and maintenance, reusing, remanufacturing, or upcycling, focusing on maintaining value and not generating waste in the process. In terms of biomass, this includes the use of protein-rich side streams for plant-based meat analogues, and, in terms of technical materials, it includes the service for remanufacturing die-casting solutions.

To raise awareness of this topic and identify gaps in the quantifications, quarterly trainings and meetings take place with ambassadors, sales, and management in the regions and in the businesses. During these meetings, participants are encouraged to understand how we can further embed this in daily business activities to support our customers in reducing their carbon footprint.

Quantification of our CO₂e impact

+ Approach and methodology

+ GRI disclosure 103-1 and 103-2

+ Impact on the SDGs

Find full information about our environmental quantification program on our website.

Learn more about our
Environmental Impact Services
on our website.

Our Environmental Impact Services

Since 2020 Bühler's Environmental Impact Services have supported companies to quantify, understand, report, and reduce their environmental footprint.

As more companies set ambitious climate targets, and new sustainability regulations come into effect, increasingly companies must quantify and reduce the carbon footprint of their operations and products in a robust and certifiable way. Companies must also analyze the risk of climate impacts on their business and communicate their governance structure and strategy to mitigate these risks and reduce their footprint.

Bühler's Environmental Impact Services offer a combination of quantification and process expertise to provide accurate and reliable quantifications and strategies to companies. Bühler has supported companies in several fields including cereals and grain processing, chocolate and confectionary, and die-casting, but also offers this as an independent service to companies in different industries.

In 2023, Bühler worked closely with Mass Challenge Switzerland to develop a carbon calculator for the organization's start-ups. We supported the Good Food Institute with life-cycle assessments in the plant-based meat industry. In addition, we worked with many companies in the cereals and grains industry offering new insights such as benchmarking, goal setting, and reduction strategies.

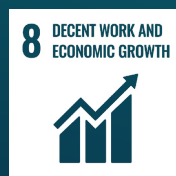


BÜHLER AND THE SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) are the United Nation's universal call to action to end poverty, protect the planet, improve health and education, spur economic growth, and reduce inequalities. Bühler respects and supports all of the 17 SDGs and understands that the goals are interconnected. To simplify, Bühler has defined eight core SDGs where it focusses its efforts to drive positive impact, and five where it strives to make relevant contributions.

SDGs that are also important to Bühler:

SDGs that relate to the core competencies of Bühler:



CERTIFICATES



Learn more about our certificates
on our website.

SUSTAINABILITY GOVERNANCE

Board-level governance

The governance structure around sustainability within Bühler reflects and ensures the close involvement of the Board of Directors and the highest management levels.

The responsibility for sustainability lies within the Board of Directors, which has direct overview of the progress made towards its sustainability strategy. The Chief Technology Officer and Sustainability Officer present the status once a year to the Board of Directors.

As the Board of Directors considers sustainability an integral part of the company's strategy, familiarity with environmental, social, and governance (ESG) matters is required of board members. The Board Members have a broad spread of competence relating to ESG topics, including those related to climate. With Board Members engaging in different programs around social and environmental topics, they accompany Bühler with further expertise.

Sustainability Committee

The Sustainability Committee was established in 2021 to effectively address the impact of our business on nature and humanity and

to seek the most effective ways in which Bühler can contribute to mitigating climate change and biodiversity loss. The purpose of the Sustainability Committee is to act as an advisory body to the Executive Board regarding Bühler's [sustainability strategy](#) and execution plans. The Sustainability Committee is an assembly of selected Executive Board members such as the Chief Executive Officer, the Chief Financial Officer, the Chief Technology Officer, and the Chief Operating Officer, together with two external experts. The Chief Executive Officer, as Chairman of the Sustainability Committee and Board Member, forms a bridge to the Board of Directors.

In 2023 the Sustainability Committee met four times. Among the key topics discussed were:

- quantification of the environmental impact of Bühler solutions;
- review of strategy and action plan to reduce Bühler's Scope 1 and 2 emissions;
- review of Bühler's opportunities to support customers in their sustainability journeys;
- review of investments in nature-based solutions.

Executive Board-level governance

Members of the Executive Board have defined roles relating to Bühler's sustainability strategy.

The Chief Operating Officer oversees sustainability topics, including climate-related matters, with a focus on Bühler's own operations as well as upstream in Bühler's supply chain. This covers topics related to CO₂e emissions and monitoring Scopes 1, 2, and 3 (upstream) emissions against set targets.

Scope 3 (downstream) emissions are the responsibility of the Chief Technology Officer, who is also responsible for driving innovation focused on sustainability. This includes climate-related topics that are customer-centered.

Bühler's sustainability reporting, including climate-related disclosures, is in the charge of the Chief Financial Officer, who also oversees investments regarding Scopes 1 and 2 emissions.

Sustainability Community

Bühler is committed to embedding sustainability across the entire organization. The result is Bühler's Sustainability Community. Across different functions, business units, and regions, members of

staff have been assigned to work together in a collaborative manner on specific sustainability topics. The Sustainability Community is led by the Sustainability Officer, who reports to the Chief Technology Officer. Key members of the Sustainability Community are linked to the highest management levels.

Sustainability training

In 2023, we provided sustainability training for 770 people including external trainings for customers and technical schools, as well as internal training programs for Bühler sales, R&D, and management. We ran 39 webinars, conferences, and workshops on the topic. The external trainings, which reached approximately 403 people, included conferences, events, courses, and tailored 1:1 knowledge transfer workshops with Bühler environmental impact services.

In 2023, two trainings were offered to management-level positions. A total of 30 managers took part. The trainings focused on the sustainability challenges that Bühler as a company faces and on possible emissions reduction initiatives as a first step in tackling those challenges.

SUSTAINABILITY COMMITTEE

The Sustainability Committee was formed by the Executive Board to strengthen Bühler's sustainability strategy and execution plans. Its members include renowned international experts from outside Bühler as well as internal experts. It focuses on the delivery of environmental targets for climate with Greenhouse Gas Protocol Scopes 1, 2, and 3, on circular economy, nature, and biodiversity.

SUSTAINABILITY COMMITTEE

Chairman

Stefan Scheiber

Committee Members

Dr. Ian Roberts

Dr. Mark Macus

Dr. Holger Feldhege

Expert external Committee Members

Prof. Dr. Tom Crowther

Prof. Dr. Lino Guzzella

SUSTAINABILITY COMMITTEE



GRI CONTENT INDEX

Bühler Group has reported the information cited in this GRI content index for the period from January 1, 2023 to December 31, 2023 with reference to the GRI Standards.

GRI 1: Foundation 2021

	GRI Standard	Disclosure	More information
General	GRI 2: General Disclosures 2021	2-1 Organizational details	on pages 77–78
		2-3 Reporting period, frequency and contact point	on page 50
		2-6 Activities, value chain and other business relationships	on pages 15–26 , 28–33
		2-7 Employees	on pages 35–42 , 57–62
		2-9 Governance structure and composition	on pages 69–72 , 77–78
		2-10 Nomination and selection of the highest governance body	on pages 77–89
		2-11 Chair of the highest governance body	on pages 77–89
		2-12 Role of the highest governance body in overseeing the management of impacts	on pages 77–89
		2-13 Delegation of responsibility for managing impacts	on pages 69–72
		2-14 Role of the highest governance body in sustainability reporting	on pages 69–72
		2-16 Communication of critical concerns	on pages 90–91
		2-17 Collective knowledge of the highest governance body	on pages 69–72

GRI CONTENT INDEX

	GRI Standard	Disclosure	More information
General	GRI 2: General Disclosures 2021	2-19 Remuneration policies	on pages 93–98
		2-20 Process to determine remuneration	on pages 93–98
		2-22 Statement on sustainable development strategy	on pages 9–14 , 45–47 , 63–67
		2-23 Policy commitments	on page 90
		2-26 Mechanisms for seeking advice and raising concerns	on page 90
		2-27 Compliance with laws and regulations	on page 62
		2-28 Membership associations	on page 43
		2-29 Approach to stakeholder engagement	on pages 11–13 , 20–21 , 25 , 28–33
	GRI 3: Material Topics 2021	3-1 Process to determine material topics	on pages 48–49
		3-2 List of material topics	on pages 48–49
Economy	GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	on page 53
	GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	on page 53
		205-2 Communication and training about anti-corruption policies and procedures	on page 53
Nature	GRI 302: Energy 2016	302-1 Energy consumption within the organization	on pages 54 , 63
	GRI 303: Water and Effluents 2018	303-3 Water withdrawal	on pages 54 , 63



GRI CONTENT INDEX

	GRI Standard	Disclosure	More information
General	GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	on pages 55 , 63
		305-2 Energy indirect (Scope 2) GHG emissions	on pages 55 , 63
		305-3 Other indirect (Scope 3) GHG emissions	on pages 55–56 , 63
		305-4 GHG emissions intensity	on pages 56 , 63
	GRI 306: Waste 2020	306-3 Waste generated	on pages 56 , 63
		306-4 Waste diverted from disposal	on pages 56 , 63
		306-5 Waste directed to disposal	on pages 56 , 63
	GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	on page 56
Humanity	GRI 401: Employment 2016	401-1 New employee hires and employee turnover	on pages 57–61
	GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	on page 92
		403-3 Occupational health services	on pages 28–29 , 38–39 , 50
		403-5 Worker training on occupational health and safety	on page 57
		403-6 Promotion of worker health	on page 39
		403-9 Work-related injuries	on page 57
	GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	on page 57
		404-2 Programs for upgrading employee skills and transition assistance programs	on pages 28–29 , 31 , 35–42
	GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	on pages 61–62 , 79–84