

SUSTAINABILITY

We live a sustainable business policy. We strive to improve our solutions and services to generate long-term added value for our customers, feed the world's growing population, reduce energy consumption, and leave a healthier planet to future generations.

ALIGNING WITH THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Bühler is committed to making a meaningful impact for its customers, employees, partners, and the environment. To realize this on a global scale, it has aligned its sustainability strategy with the United Nations Sustainable Development Goals (SDGs).



The 17 SDGs are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity in inclusive societies. They are a guide to help governments achieve the ambitious and transformational 2030 Agenda for Sustainable Development. Leaving a healthier planet for future generations is a global undertaking. It requires the partnership of governments, the private sector, civil society, and citizens alike.

Working today for tomorrow

Making the right choices now to improve life in a sustainable way for future generations is important to Bühler. As a leading international solutions provider for the industrial manufacturing of food and advanced materials we, like all corporations, play a significant role in helping governments worldwide achieve the 2030 Agenda. We've made it a priority to engage and align with the SDGs because a sustainable business policy is at the core of our success. For over 150 years, we have striven to continuously improve our products and services to generate sustainable added value for our customers. In this effort, we place great emphasis on the ecological, economic, and social impact of all our activities, and the SDGs underline our vision of "innovations for a better world."

In these times of accelerated change, it is vital to understand how our industries will transform, identify where we are able to generate positive impact, and position ourselves to support this transformation. We believe that only through broad-scale collaboration will we continue to create a sustainable business that delivers a significant impact in line with the SDGs. Equally, we are convinced that industry must step up to the challenge of catalyzing sustainable change.

During the last 10 years, we have opened up our innovation model, developing close partnerships with customers, suppliers, academic institutes, and start-ups to understand the challenges of our times and anticipate future trends.

Gaining strength through alignment

People are at the core of everything Bühler has achieved. We are strong thanks to our employees. A key element of our sustainability approach is the promotion, training, and further education of our staff and those in our ecosystem. We foster a culture where personal initiative and responsibility are encouraged in a diverse and inclusive environment. Aligning with the SDGs and incorporating them into our activities and culture will further strengthen Bühler's efforts to remain a global employer of choice.

BÜHLER IMPACTS THESE 10 KEY SDGS



2 ZERO HUNGER
Developing solutions to sustainably feed 9 billion people by 2050 is our goal. We are creating industrial-scale solutions for the processing of insects and pulses as alternative protein sources and improving the efficiency of food production to reduce waste by 30%. Bühler Insect

Technology Solutions, and partner, Protix, are building the world's largest industrial insect-processing plant, scheduled to be operational in the second half of 2018.



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Bühler has started construction of its new innovation campus – the CUBIC – in Uzwil, Switzerland. It is designed to be a state-of-the-art workplace focused on collaborative innovation, where knowledge holders from across our industries and beyond can come together to address global challenges. The CUBIC will bring together the worlds of engineering and business, as diverse approaches lead to success. It opens in 2019.



3 GOOD HEALTH AND WELL-BEING

The health and well-being of our employees and the population at large is important to Bühler. We work with food manufacturers globally to help them make foods safe and more nutritious, for example, by reducing sugar and salt while still retaining taste. We offer our

employees a safe, healthy, and balanced work environment, and a health-management program. Our mission is no accidents at Bühler and no accidents at customer sites.



10 REDUCED INEQUALITIES

To reduce societal inequity through education, training, and collaboration, Bühler partners with various organizations. It established the African Milling School in Kenya in 2015 to train millers, and has joined Partners in Food Solutions to create a more sustainable food industry on the continent via volunteering. Bühler also strives to create a positive workplace where all employees have equal rights.



4 QUALITY EDUCATION

Bühler established its Learning Center in 2012 to offer high-end training programs to customers and employees in Europe, North and South America, Asia, Southeast Asia, Middle East and Africa. In its global application centers, experts run practical tests with customers to help them develop and improve products. Bühler has

been training apprentices for more than 100 years, and its model is a benchmark for many countries and companies.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Responsible production means aligning our purchasing policies and production processes in compliance with international standards. To improve its environmental performance, Bühler also requires its suppliers to comply with our global quality, environmental, and safety standards. Its ISO 9001:2015 and ISO 14001:2015 certificates were renewed and are valid through November 2020.



5 GENDER EQUALITY

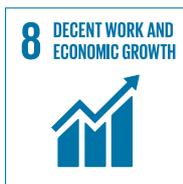
Diversity and inclusion are top priorities for Bühler, as innovation and leadership will be enhanced when the collective skills of employees of different gender, origin, nationality, ethnicity, age, knowledge, and skill levels are brought to bear. The company Code

of Conduct serves as a guide for employees to live the company principles of trust, respect, recognition, involvement, and passion.



13 CLIMATE ACTION

Bühler's goal is to reduce its environmental footprint, energy consumption and waste at its customers' sites, and in its own manufacturing and logistics by 30% by 2020. Bühler has set a goal to lower its material consumption, pollutants, and energy consumption per productive hour at 5% annually. By developing new digital solutions, the company will further help its customers improve quality and reduce waste.



8 DECENT WORK AND ECONOMIC GROWTH

Motivated employees and dedicated management staff are key to Bühler's long-term growth and business performance. Adequate compensation; safe, rewarding work in an international environment; and employee development programs enable Bühler to attract and retain talent. Over 73% of apprentices remain with the company after completing their training. Each year, 600 apprentices are enrolled worldwide.



17 PARTNERSHIPS FOR THE GOALS

Broad-scale collaboration supports the creation of a sustainable business that delivers a significant impact on climate goals. Bühler has been expanding its collaborative innovation model, developing close partnerships with customers, suppliers, academic institutes, and start-ups over the last decade. We are committed to driving collaboration further. In the digital world, collaboration is a key basis for success.

OUR KEY PERFORMANCE INDICATORS FOR SUSTAINABILITY

Our guidelines are aligned with the Global Reporting Initiative (G4)

To report accurately on sustainability, it is necessary to set measurable performance indicators and define a transparent evaluation method to measure and compare yearly progress. Bühler has aligned the sustainability report with the requirements of the Global Reporting Initiative (G4), which is the leading international standard. In particular, Bühler's reporting is adapted from the core option of the GRI guidelines.

Our sustainability reporting has been expanded continually since 2013. At present, the 17 major Bühler sites out of a total of 25 sites are reporting on 39 key performance indicators (KPIs). The reporting sites account for 92% of all productive hours.

In 2016, Bühler reviewed all sustainability KPIs and aligned them with the Bühler2020 strategy. The year 2015 forms the baseline for the performance evaluation by 2020. In 2017, Bühler aligned its sustainability strategy with the United Nations Sustainable Development Goals (SDGs), which came into effect in January 2016. The SDGs are com-

mon global measures put in place to tackle the world's most pressing issues. Bühler began exploring how to incorporate the SDGs into its KPIs and materiality aspects in 2017. Our approach to sustainability is always evolving, and we will further review how best to align our KPIs with the SDGs in the coming years.

Materiality analysis

Bühler's stakeholders are its customers, employees, suppliers, and other business partners, academia, the communities in which Bühler operates, the regulatory authorities, governments, nongovernmental organizations, as well as the environment.

Bühler fosters a continuing exchange with its stakeholders regarding all aspects of sustainability. These stakeholders were included when the most important materiality aspects were identified (see page 99). The materiality aspects are constantly being revised and upgraded to reflect the market conditions and the changing priorities of the stakeholders.

BÜHLER MATERIALITY ASPECTS

ENVIRONMENTAL

Food security, safety,
and nutrition

Resource efficiency

Environmental footprint
of our sites

Energy consumption at our locations and the plants and equipment in operation at our customers' sites account for a share of the total burden on the environment. We have therefore set ourselves the goal of reducing both the ecological footprint of our own sites and that of our customers along their value chains. Our process technologies in die casting, dispersion, and surface coating help improve sustainable mobility and the energy efficiency of buildings.

SOCIAL

Health and safety

Culture of continuous
learning

Fair and equal treatment

Motivated, carefully trained employees and dedicated management staff are key to our success. Bühler is committed at all levels to the training and continued education of its employees. As a global organization, Bühler considers the cultural diversity of its employees to be one of its major strengths. This is reflected in its efforts to fill management-level positions with local candidates whenever possible. All employees have equal rights, regardless of their origin, nationality, religion, or gender.

ECONOMIC

Long-term profitability

Corporate governance

Contribution to local
economies

Sustainable business success is a precondition for Bühler to meet the ecological and social expectations that are placed on our organization. We deliberately define long-term profitability targets, so as to secure our independence and freedom. It is important to us to ensure that all our market regions benefit from our value generation.

INSECT PROTEIN AN INDUSTRY IS BORN

In 2017, Bühler made great advances toward its goal of utilizing protein from insects for animal feed, realizing that as the global population grows and environmental stresses increase, we will need alternative and more sustainable protein sources. Insects are rich in protein, and they feed on food waste, leaving a minimal environmental footprint.

In early 2017 Bühler teamed up with Protix, one of the world’s leading insect-rearing and processing companies, to form Bühler Insect Technology Solutions. The joint venture was set up to develop industrial-scale production processes to manufacture protein-rich feedstock using insects and larvae. As part of the project, Bühler is currently building the world’s largest industrial insect processing plant in China, with an opening date in the second half of 2018.

By 2050 it is estimated that insects could be the source of 15% of the world’s protein. We are witnessing the birth of a new industry, with Bühler spearheading change through its unrivaled experience in developing scalable, hygienic, and cost-effective processing plants.

A LANDMARK SHIFT CARBON-NEUTRAL COFFEE

With Oslo’s ambition to become carbon-neutral by 2030 and Norwegians being among the world’s biggest per capita drinkers of coffee, it seems natural that Bühler should team up with the country’s largest coffee manufacturer to build the world’s first carbon-neutral coffee plant. Joh. Johannson produces high-quality roasted beans and ground coffee. The challenge has been how to produce carbon-neutral coffee without compromising on flavor or quality. Extensive flavor-matching trials took place at our Application Center in Uzwil until cupping experts gave their seal of approval.

The new greenfield plant in Vestby will be using two Bühler InfinityRoast 2000 roasters with green bean preheating units along with sophisticated energy recovery systems and emission control technologies to cut energy consumption and greenhouse gases. Bühler is providing all the processing equipment apart from packaging. Hundreds of photovoltaic panels will be used to mitigate energy consumption to ensure the whole plant is carbon-neutral. The future plant is a landmark change that will allow Joh. Johannson’s customers to enjoy carbon-neutral coffee.

ENVIRONMENTAL SUSTAINABILITY

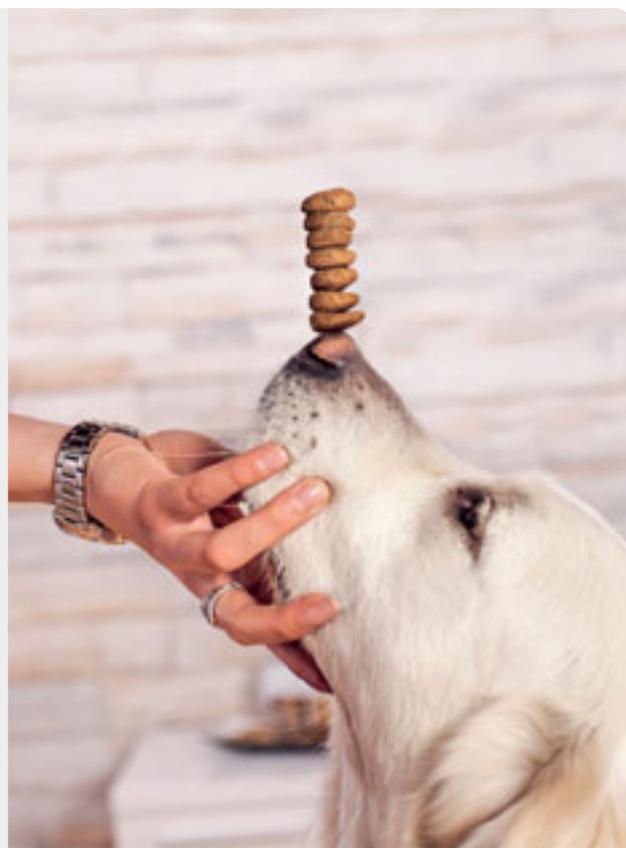
SDG	Materiality aspect	Our commitment	Sustainability goals
 <p>2 ZERO HUNGER</p>	Food security, safety, and nutrition	We set the standards for the reduction of food losses and for safe and healthy foods.	We continuously improve our solutions for safe and healthy foods.
 <p>13 CLIMATE ACTION</p>	Resource efficiency	We set the standards for resource-efficient solutions.	We continuously improve our solutions for resource efficiency.
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	Environmental footprint of our sites	We reduce the environmental footprint of our sites worldwide.	We reduce energy and water consumption as well as carbon emissions and waste by 30% by 2020.

We ensure environmental compliance in our supply chain.

OPTIMAL MOISTURE CONTENT FOR PERFECT PET FOOD

The efficiency of the machinery and production processes that Bühler manufactures is at the forefront of the challenge to cut waste and energy usage by 30% for our customers by 2020. The beauty of the challenge is that an efficiently run business means saving costs while reducing carbon footprint. An example is the new AeroPro Moisture Control – a complete moisture control system that, in realtime, augments the dryer temperature profile to minimize over drying. Using microwave sensor technology and the Internet of Things, Bühler has devised a continuous moisture management process that improves dryer yield and cuts energy use for drying.

Through continuous analysis, the time gaps associated with traditional manual sampling techniques are eliminated, allowing algorithms to immediately adjust production parameters so the optimum moisture content is achieved. Specifically, 1% moisture gain in final product water content is equivalent to USD 300,000 a year for the average pet food line. It's a win-win-win for the customer, for Bühler, and for carbon emissions.



Key performance indicator (KPI)	GRI G4-related KPI	Target 2020	Baseline 2015	2016	2017
Percentage of food-relevant R&D projects with focus to improve food safety.	G4-PR1	50%	28%	29%	34%
Number of employees in key positions to receive training in food safety.	Additional (related to G4-PR1)	3,000	498	1,572	1,884
Percentage of food-relevant R&D projects with focus to improve nutrition.	Additional (related to G4-PR1)	20%	8%	10%	23%
Percentage of R&D projects with focus to improve energy efficiency per tonne of end product or finished piece.	Additional (related to G4-EN6, G4-EN7, G4-EN27)	70%	24%	29%	37%
Percentage of R&D projects with focus to improve product yield.	G4-EN27	50%	22%	29%	40%
Energy consumption relative to 1,000 productive hours, GJ/1,000 h.	G4-EN3/EN6	30% reduction to baseline	91.5	77.1	79.9
Carbon equivalents relative to 1,000 productive hours, t/1,000 h.	G4-EN15	30% reduction to baseline	12.8	10.8	10.1
Water consumption relative to 1,000 productive hours, l/1,000 h.	G4-EN8/EN10	30% reduction to baseline	84.1	89.5	55.5
Amount of waste (including recycled material) relative to 1,000 productive hours, kg/1,000 h.	G4-EN23	30% reduction to baseline	3,715	3,178	2,266
Amount of hazardous waste relative to 1,000 productive hours, kg/1,000 h.	G4-EN23	30% reduction to baseline	246	151	153
Number of significant fines for noncompliance with environmental laws.	G4-EN29	0	0	0	0
Percentage of top suppliers that have signed the Bühler Supplier Code of Conduct or have an own equivalent code of conduct.	G4-EN32	100%	0	Rollout ongoing	30%

TRAINING DRIVES FUTURE SUCCESS

At Bühler we pride ourselves on the breadth and depth of the lifelong learning and education we provide, both internally and externally. With Bühler support, 600 apprentices enrolled in courses across the globe this year, ranging from boilermaking to plant design. Each apprentice benefits from the unique Swiss dual vocational system, which combines practical experience with classroom exposure while earning as they learn.

Bühler also applies this principle of balancing the practical with the theoretical to the African Milling School it set up in Kenya's capital, Nairobi. Each year two-dozen students from across Africa begin a two-year course where they learn to become the next generation of millers and head millers. Within Bühler we run the Master of Bühler Management (MBM), where 30 of our best employees are selected from across Bühler's regions and businesses for themed training programs held at different international locations. The MBM aims to ensure our future managers are equipped with the right leadership and entrepreneurial skills to drive Bühler's future success.

FARM-TO-FORK PROTECTION FOOD SAFETY TRAINING

It is only if every link in the food chain is secure against potential pathogen risk that we can be sure our food is properly protected. Five years ago Bühler launched a major food-training program with the goal of ensuring every employee knows about food hazards and hygienic product design, while understanding that food safety is paramount in all we do.

Our food-training courses have evolved since the launch. Bühler invites its clients to training courses to explain the food and feed safety challenges each industry or processor faces. It's through this interchange of knowledge that Bühler is able to adapt food safety solutions to its many different markets, and so help achieve farm-to-fork protection. Bühler does not just want to understand the food safety concerns of its customers, but also their customers in turn. This year the reach of the program extended beyond on-site training, with the launch of an e-learning module and off-site training at customer sites. To date nearly 1,900 employees in key positions have completed the food safety training online or in courses.

SOCIAL SUSTAINABILITY

SDG	Materiality aspect	Our commitment	Sustainability goals
 <p>3 GOOD HEALTH AND WELL-BEING</p>	Health and safety	We strengthen our corporate culture of health and safety.	We want to increase the safety of our products and our manufacturing locations.
			We enhance the health and well-being of our employees worldwide.
 <p>4 QUALITY EDUCATION</p>	Culture of continuous learning	We pursue our corporate culture of continuous learning.	We enable our employees worldwide to increase their level of relevant competencies.
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>			We ensure the sustained availability of core competencies in a dynamic context.
			We offer attractive job opportunities and development for young employees.
			We want to promote our culture of innovation and entrepreneurship across all organizational levels.
 <p>5 GENDER EQUALITY</p>	Fair and equal treatment	We strengthen our corporate culture of fair and equal treatment.	We want to enhance the integration of our partners into our innovation process.
			We foster a workplace free from any discrimination.

EMPOWERING YOUNG LEADERS TO DRIVE CHANGE

A sustainable future requires informed, empowered, and connected leaders. The One Young World initiative brings together young future leaders from across the globe with a call to action to bring about positive change. This is the second year that Bühler has sent a delegation to the annual summit, where they were inspired and encouraged by world leaders in politics, NGOs, the arts, and corporations to debate and formulate solutions that address some of the most pressing issues of our time.

Bühler celebrates the opportunity One Young World provides to inspire the future generation to drive change for a more sustainable future from within companies and across industries. It is also a chance for Bühler's young leaders to meet, discuss, and form networks with colleagues and clients that will help to improve and strengthen Bühler and its aims from within. At this year's October summit in Bogotá, Colombia, delegates addressed diversity and inclusion, peace and reconciliation, powering sustainable development through technology, business ethics, and doing well by doing good.



Key performance indicator (KPI)	GRI G4-related KPI	Target 2020	Baseline		
			2015	2016	2017
Percentage of R&D projects with focus to improve operator safety.	G4-PR1	50%	48%	43%	22%
Number of recordable work-related injuries per 100 full-time employees.	G4-LA6	0	2.9	2.9	2.3
Sickness-related absenteeism (days per employee and year).	G4-LA6	0	2	3.8	2.4
Percentage of all employees undergo the Employee Performance Management process every year.	G4-LA10 and G4-LA11	80%	80%	86%	89%
The number of training days per full-time employee per year.	G4-LA9	2	2	2.3	1.85
Percentage of training costs over total personnel costs per local Learning Center.	Additional (related to G4-LA9)	1%	1.2%	1.9%	0.9%
Percentage of High Potentials among all employees.	Additional	5%	2.8%	3.1%	3.2%
The key positions for the senior functions at management level 1, 2, and 3 have been defined, and potential successors have been determined.	Additional (related to G4-LA12)	100%	100%	80%	88%
Percentage of all apprentices who are hired subsequently to their apprenticeship.	Additional (related to G4-LA12)	80%	77%	71%	73%
Percentage of employees participating in the Bühler Innovation Challenge (every two years).	Additional	60%	34%	32%	NA
Percentage of implemented business ideas from the Bühler Innovation Challenge (every two years).	Additional	5%	NA	2%	NA
Percentage of projects run in collaboration with partners (suppliers, customers, universities).	Additional	50%	44%	47%	53%
Percentage of female employees.	G4-LA12	20%	15%	16%	15%

COLLABORATION DRIVES ECONOMIC SUSTAINABILITY

Bühler believes that to help achieve a sustainable future, it needs to support new, cutting-edge businesses to ensure it can carry innovation forward for the benefit of future generations. In 2014, Bühler partnered with MassChallenge in Boston, a nonprofit organization that helps support start-ups by providing them with mentors from across the business community. A year later Bühler, along with other partner companies, founded the MassChallenge accelerator program in Switzerland, and in 2017 alone we are proud to report 75 fledgling companies benefiting from the initiative, bringing the total to 140 start-ups to date.

An example of the type of innovation that Bühler is supporting through MassChallenge is Counting Carbon – an engineering team that is developing a smart shopping assistant that uses computer algorithms to raise consumer awareness by calculating the health and environmental impact of the food we buy.

Taste of Kenya is another – in 2017, Bühler presented it with its first Bühler Sustainability Award for its efforts to simplify the coffee supply chain in Africa through direct trade between farmers and retailers.

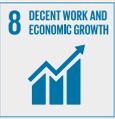
A BREAKTHROUGH FOR THE BATTERY INDUSTRY

2017 has been a milestone year for electric vehicles as China considers following France and Britain in setting a deadline for a ban on the sale of new gas-fueled and diesel cars. Public health concerns about air quality is driving change, and Bühler is part of the revolution to support the development of e-mobility through its partnership with Lishen, one of China’s largest battery manufacturers.

Bühler’s development of an innovative continuous mixing process for battery slurry that is capable of cutting battery manufacturers’ investment and operating costs by up to 60% is set to help companies meet the increasing demand for the lithium-ion batteries needed for electric vehicles.

In July 2017, Lishen’s new battery plant in Suzhou, China, opened four industrial-scale production lines for battery slurry to be used in the production of a new generation of batteries that will be lighter, with a higher energy density, and cheaper to produce. Bühler received Lishen’s Best Equipment Supplier award at the inauguration ceremony. It is anticipated that, thanks to Bühler technology, the new-generation battery will increase the range of an electric vehicle by a third.

ECONOMIC SUSTAINABILITY

SDG	Materiality aspect	Our commitment	Sustainability goals
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	Long-term profitability	We deliver long-term profitability.	We remain a profitable and independent business.
 <p>10 REDUCED INEQUALITIES</p>	Corporate governance	We ensure an effective corporate governance approach.	We assure legal compliance and apply our Code of Conduct worldwide.
 <p>17 PARTNERSHIPS FOR THE GOALS</p>	Contribution to local economies	We contribute to local economies.	We contribute to the development of local communities.

VOLUNTEERING VIRTUALLY FOR AFRICA'S DEVELOPMENT

Knowledge underpins sustainable success. The vast expertise and experience of Bühler and the partner companies of Partners in Food Solutions (PFS) – General Mills, Cargill, DSM, Hershey, and Ardent Mills – is invaluable to food processors in Africa. It improves food security, nutrition, and economic development across the continent. Which is why four years ago, Bühler began supporting the nonprofit organization PFS. It links industry experts with small and mid-size food processors in Africa. In our interconnected world, a volunteer using a computer can share knowledge that can help train and build the capacity of a business thousands of miles away.

The initiative supports Bühler's desire to ensure every living person has access to healthy food. To help achieve this, Bühler has set up a working group to better match the right expertise with the right company, while encouraging more staff to become virtual volunteers. In September, Bühler volunteers and other partner companies met for the first time in Switzerland to hear from PFS partners working in Africa how support networks can be better developed. It was an opportunity to hear firsthand what sort of knowledge local producers are looking for.



Key performance indicator (KPI)	GRI G4-related KPI	Target 2020	Baseline 2015	2016	2017
100% own financing of growth.	Additional (related to G4-EC1)	100%	100%	100%	100%
Number of applications received per open position.	Additional	30	16	23.0	22.4
Quote of terminations within the first 12 months of employment.	Additional	<5	9	3	8
Quote of terminations during the probation period.	Additional	<1	1	2	4
Quote of high potentials after two years of service.	Additional	3%	2%	1%	>1%
Percentage of employee turnover.	G4-LA1	<8%	8%	7.5%	8.3%
Percentage of new employees in the sales, purchasing, and management functions who have attended the online training against corruption and bribery.	G4-SO8	100%	97%	92%	87%
Number of companies audited on corruption prevention.	G4-SO8	10	8	9	11
Number of companies audited on fraud prevention.	G4-SO8	10	8	9	11
Number of relevant compliance fines (higher than CHF 200,000).	G4-SO8	0	0	0	0
Number of whistleblowing cases per year.	Additional (related to G4-SO8)	Best practice in definition with peers	11	5	2
Number of all compliance cases.	Additional (related to G4-SO5 and G4-SO8)	Best practice in definition with peers	64	47	11
Number of projects supported by Bühler employees through Partners in Food Solutions and other nongovernmental organizations.	Additional (related to G4-EC6)	10	0	Rollout ongoing	12

