

# Sustainability Report

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.

# OUR KEY PERFORMANCE INDICATORS FOR SUSTAINABILITY

Reporting according to the guidelines of the Global Reporting Initiative.

To report accurately on sustainability, it is necessary to set measurable performance indicators and to define a transparent evaluation method to measure and compare yearly progress. Bühler's reporting is in accordance with the guidelines of the Global Reporting Initiative (GRI), which is the leading international standard. In particular, Bühler uses selected GRI Standards, or parts of their content, to report specific information.

Bühler continually strives to improve its sustainability reporting. At present, Bühler reports on 35 key performance indicators (KPIs). The 17 major Bühler sites, covering more than 87% of all productive hours, report on five specific environmental KPIs. The other 30 KPIs apply across the entire company, unless explicitly stated otherwise. The former Haas Group, which became part of the Bühler Group in 2018, is not integrated in the present reporting. Bühler aligned its sustainability KPIs with its Bühler 2020 strategy. The year 2015 forms the baseline for the performance evaluation by 2020.

The 2018 reporting represents an increase in data quality and a refinement of the data collection methodology. Important to note is the significant one-off perturbation introduced by investments in new buildings and facilities in Uzwil, Switzerland, that specifically contributed to the reported increases in the environmental indicators, material and hazardous waste, and energy and water consumption.

In alignment with the Group strategy:

- The number of work-related injuries per 100 full-time employees remained constant at 2.3, despite multiple building and renovation projects running across the globe.

- The percentage of top suppliers who have signed the Bühler Supplier Code of Conduct or have an equivalent code increased from 30% in 2017 to 40% in 2018.

- The Employee Performance Management process now covers 93% of employees, up from 89% in 2017.

- The scope of online training against corruption and bribery was increased to include all Bühler personnel with a Bühler e-mail address rather than only employees with sales, purchasing, and management functions.

- The number of employees trained in food safety since 2013 increased from 1,884 in 2017 to 2,284 in 2018, and R&D projects at Grains & Food with a focus on improving food safety increased from 34% in 2017 to 42% in 2018.

- R&D projects focusing on increasing product yield continue to increase, having almost doubled from 22% to 42% since 2015.

- Reflecting our strategy of collaborative innovation internally and externally at Bühler, 45% of employees engaged in the biennial Innovation Challenge in 2018, and the percentage of R&D projects run in collaboration with partners remains over 50%.

This material references as declared Disclosures 205-1 and 205-2 from GRI 205: ANTI-CORRUPTION 2016; Disclosure 302-3 from GRI 302: ENERGY 2016; Disclosure 303-1 from GRI 303: WATER 2016; Disclosure 305-4 from GRI 305: EMISSIONS 2016; Disclosure 306-2 from GRI 306: EFFLUENTS AND WASTE 2016; Disclosure 308-1 from GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT 2016; Disclosure 401-1 from GRI 401: EMPLOYMENT 2016; Disclosure 403-2 from GRI 403: OCCUPATIONAL HEALTH AND SAFETY 2016; Disclosures 404-1, 404-2, and 404-3 from GRI 404: TRAINING AND EDUCATION 2016; Disclosure 405-1 from GRI 405: DIVERSITY AND EQUAL OPPORTUNITY 2016; Disclosure 416-1 from GRI 416: CUSTOMER HEALTH AND SAFETY 2016; Disclosure 419-1 from GRI 419: SOCIOECONOMIC COMPLIANCE 2016.

## ECONOMIC SUSTAINABILITY

| Key performance indicator (KPI)   | Reference to GRI Standards | Target 2020                            | Base year 2015 | 2016 | 2017 | 2018             |
|---|----------------------------|--|----------------|------|------|------------------|
| Number of Bühler sites audited on corruption prevention   | Related to 205-1           | 10                                     | 8              | 9    | 11   | 4 <sup>1</sup>   |
| Number of Bühler sites audited on fraud prevention  | Related to 205-1           | 10                                     | 8              | 9    | 11   | 4 <sup>1</sup>   |
| Percentage of employees with a Bühler e-mail address who have attended the online training against corruption and bribery | Related to 205-2           | 100%                                   | 97%            | 92%  | 87%  | 62% <sup>2</sup> |
| Number of whistle-blowing cases   | Additional                 | Best practice in definition with peers | 11             | 5    | 2    | 10               |
| Number of all compliance cases  | Additional                 | Best practice in definition with peers | 64             | 47   | 11   | 45               |

<sup>1</sup> Reason for decrease in 2018: Efforts were targeted toward upgrading Bühler's internal control system and launching a control self-assessment globally in order to improve identification of key risks and define risk-mitigation actions.

<sup>2</sup> Reason for decrease in 2018: The target group increased to include all employees with a Bühler e-mail address. Previous years only covered employees with sales, purchasing, and management functions.

## ENVIRONMENTAL SUSTAINABILITY

| Key performance indicator (KPI)   | Reference to GRI Standards | Target 2020                | Base year 2015 | 2016  | 2017  | 2018                 |
|---|----------------------------|----------------------------|----------------|-------|-------|----------------------|
| Energy consumption at the 17 major Bühler sites relative to productive hours (GJ/1,000 hrs)   | 302-3                      | 30% reduction to base year | 91.5           | 77.1  | 79.9  | 95.4 <sup>1,2</sup>  |
| Water withdrawal at the 17 major Bühler sites relative to productive hours (m <sup>3</sup> /1,000 hrs)                                | Related to 303-1           | 30% reduction to base year | 84.1           | 89.5  | 55.5  | 73.5 <sup>1,3</sup>  |
| CO <sub>2</sub> equivalents at the 17 major Bühler sites relative to productive hours (t/1,000 hrs)                                   | 305-4                      | 30% reduction to base year | 12.8           | 10.8  | 10.1  | 11.8 <sup>1,2</sup>  |
| Amount of waste (including material collected for recycling) at the 17 major Bühler sites relative to productive hours (kg/1,000 hrs) | Related to 306-2           | 30% reduction to base year | 3,715          | 3,178 | 2,266 | 3,038 <sup>1,2</sup> |
| Amount of hazardous waste at the 17 major Bühler sites relative to productive hours (kg/1,000 hrs)                                    | Related to 306-2           | 30% reduction to base year | 246            | 151   | 153   | 454 <sup>1,2</sup>   |
| Percentage of top suppliers who have signed the Bühler Supplier Code of Conduct or have an equivalent code                            | Related to 308-1           | 100%                       | NA             | NA    | 30%   | 40%                  |
| Percentage of R&D projects with a focus on improving energy efficiency per ton of end product or finished piece                       | Additional                 | 70%                        | 24%            | 29%   | 37%   | 35%                  |
| Percentage of R&D projects with a focus on improving product yield  | Additional                 | 50%                        | 22%            | 29%   | 40%   | 42%                  |

<sup>1</sup> Reasons for increase in 2018: improved data collection and quality. The decrease in productive in-house hours from manufacturing is reported against total site resource use.

<sup>2</sup> Additional reason for increase in 2018: significant construction and layout reorganization at the Bühler Uzwil site.

<sup>3</sup> Additional reasons for increase in 2018: significant construction and layout reorganization at the Bühler Uzwil site. The exceptionally hot and long summer period in China increased water consumption at sites.

## SOCIAL SUSTAINABILITY

| Key performance indicator (KPI)   | Reference to GRI Standards | Target 2020 | Base year 2015 | 2016  | 2017  | 2018               |
|---|----------------------------|-------------|----------------|-------|-------|--------------------|
| Percentage of terminations within the first 12 months of employment (Bühler AG and Bühler Management AG in Switzerland only)                | Related to 401-1           | <5.0%       | 9.0%           | 3.0%  | 8.0%  | 5.8% <sup>1</sup>  |
| Percentage of terminations during the probation period (Bühler AG and Bühler Management AG in Switzerland only)                             | Related to 401-1           | <1.0%       | 1.0%           | 2.0%  | 4.0%  | 3.5% <sup>1</sup>  |
| Percentage of employee turnover   | Related to 401-1           | <8.0%       | 8.0%           | 7.5%  | 8.3%  | 9.1%               |
| Number of work-related injuries per 100 full-time employees   | Related to 403-2           | 0           | 2.9            | 2.9   | 2.3   | 2.3                |
| Sickness-related absenteeism (days per employee and year; Bühler AG and Bühler Management AG in Switzerland only)                           | Related to 403-2           | 0           | 2.0            | 3.8   | 2.4   | 5.8 <sup>1,2</sup> |
| Percentage of training costs over total personnel costs   | Related to 404-1           | 1.0%        | 1.2%           | 1.9%  | 0.9%  | 1.5%               |
| Number of training days per full-time employee per year   | Related to 404-1           | 2.0         | 2.0            | 2.3   | 1.9   | 2.0                |
| Number of employees who have received training in food safety since 2013  | Related to 404-2           | 3,000       | 498            | 1,572 | 1,884 | 2,284              |
| Percentage of employees who go through the Employee Performance Management process each year  | 404-3                      | 80%         | 80%            | 86%   | 89%   | 93%                |
| Percentage of employees who are high potentials   | Related to 404-3           | 5.0%        | 2.8%           | 3.1%  | 3.2%  | 3.0%               |
| Percentage of apprentices who are hired subsequent to their apprenticeship (Bühler AG in Switzerland only)                                  | Related to 405-1           | 80%         | 77%            | 71%   | 73%   | 73%                |
| Percentage of female employees  | Related to 405-1           | 20%         | 15%            | 16%   | 15%   | 16%                |
| Percentage of R&D projects at Grains & Food with a focus on improving food safety   | Related to 416-1           | 50%         | 28%            | 29%   | 34%   | 42%                |
| Percentage of R&D projects at Grains & Food with a focus on improving nutrition   | Related to 416-1           | 20%         | 8%             | 10%   | 23%   | 13%                |
| Percentage of R&D projects Group-wide with a focus on improving operational safety  | Related to 416-1           | 50%         | 48%            | 43%   | 22%   | 24%                |
| Number of relevant fines for compliance issues (>CHF 200,000)   | Related to 419-1           | 0           | 0              | 0     | 0     | 0                  |
| The key positions for the senior functions at management level 1, 2, and 3 have been defined, and potential successors have been determined | Additional                 | 100%        | 100%           | 80%   | 88%   | 90%                |
| Percentage of employees participating in the Bühler Innovation Challenge (every two years)  | Additional                 | 60%         | NA             | 32%   | NA    | 45%                |
| Percentage of implemented business ideas from the Bühler Innovation Challenge (every two years)   | Additional                 | 5.0%        | NA             | 2.0%  | NA    | 1.5%               |
| Percentage of R&D projects run in collaboration with partners (suppliers, customers, universities)  | Additional                 | 50%         | 44%            | 47%   | 53%   | 51%                |
| Number of applications received per open position (Bühler AG and Bühler Management AG in Switzerland only)                                  | Additional                 | 30          | 16             | 23    | 22    | 25 <sup>1</sup>    |
| Number of projects supported by Bühler employees in volunteer programs such as Partners in Food Solutions                                   | Additional                 | 10          | NA             | NA    | 12    | 22                 |

<sup>1</sup> Explanation regarding the scope of KPIs: Due to globally heterogeneous human resource systems, the data for these KPIs are not reported across the entire company.

<sup>2</sup> Reason for increase in 2018: improved data quality and stricter reporting.

## A pledge for diversity and inclusion



On International Women's Day 2018, Bühler CEO Stefan Scheiber proudly joined forces with CEOs from 50 Swiss-based companies to make a public pledge in support of gender equality. This pledge is part of an initiative launched by Advance Women in Swiss Business, an association founded by female executives with the mission to increase the share of women in leading positions in Swiss companies. Gender equality is important? Because over a century after the very first Women's Day, it is still an issue around the world. In Switzerland, for example, the share of women in leading positions falls below the international average at about 9%. Stefan Scheiber's pledge, however, is not limited to Switzerland – it is a global commitment, and it was the first step in initiating the company's Group-wide diversity and inclusion efforts launched in 2018.

## Algae as a protein alternative



The use of algae as a food or dietary supplement is getting increased attention in light of the growing protein gap. Although microscopically small, single-cell organisms such as dunaliella, spirulina, and chlorella can consist of up to 70% protein, supplemented by polyunsaturated fatty acids, vitamins, and beta-carotene.

Currently only 15 of around 300,000 microalgae species are commercially used in food and feed, making the potential for further development immense. What's more, no arable land is required to cultivate them. Bühler is also looking at ways of integrating microalgae into other food products. One example is a partnership between Bühler and Swiss start-up Alver to develop them as an ingredient in the production of pasta products with a protein content of more than 60%.

Protein-rich algae have long been a part of daily cuisine in the form of seaweed and other dishes in Asia, and also on the European Atlantic coasts. Depending on the species, it can be farmed in both warm and cold climates. Bühler Aero-glide systems are already used in the production of seaweed products for a number of South Asian customers, with dried seaweeds also processed on Bühler roller mills in China.

## ReNew – recycling and upcycling



Why dispose of a trusted machine that has been used in production for years just because it has reached a certain age? Instead, customers can find new homes for old machines by selling them via the 2018-launched Bühler Internet platform, ReNew. Customers registered on the ReNew website can sell used Bühler machines, for

example, when they are planning to replace their production lines with new ones. Existing or new customers who are not in a position to invest in the newest and most expensive plants benefit twice from this: They can buy a secondhand machine at a reduced price, and it has been overhauled and certified by Bühler.

Bühler experts are on hand to lend support throughout the process, and even organize the logistics and all the necessary export and import formalities. Another feature is the Refurbish section. Here, customers who wish to continue using one of their existing machines can obtain a quote for an overhaul to give new vitality to machines designed to last. With ReNew, older machines can remain economically viable and not end up as scrap metal, thereby reducing waste.

## Mill E3 – a new level of efficiency

Bühler is transforming the world of flour milling, with a step change. Imagine a flour mill, but with significantly lower investment and reduced energy consumption. This is the new Mill E3.

E3 stands for the three efficiency levels: building, installation, and energy. The benefits of this milling innovation are: building investment savings of 30%, a 30% shorter installation time, and energy savings of 10%. We are reducing the height of the building by half, to three floors. The compact design reduces the building investment costs by 30%.

Mill E3 consists of preassembled and pretested modules that are connected on-site, which in turn ensures faster installation of the mill. The installation is 30% faster than conventional flour mills. The reduced building size and other innovations save 10% energy with the same capacity. For instance, the TUBO tubular push conveyor replaces pneumatic transport on the break passages to reduce energy use, and the new, integrated grinding system Arrius reduces the energy consumption of the grinding by 10% compared with conventional roller mills. Mill E3 and Arrius were introduced by Bühler at the Ipack-Ima trade fair in 2018.

## Innovation starts from within

The Innovation Challenge is a company wide competition held every two years. It presents an opportunity for all employees to put forward ideas that have the potential to make a real impact for Bühler's customers and its businesses. The challenge has taken place since 2012. Innovation Challenge 2018 saw nearly 350 teams submitting ideas – that's twice as many as in 2016. The challenge culminated in April, when the winning idea was chosen. The winning project has the potential to help ease the protein gap expected as the world population grows. Innovations from past winners have all been brought to market, including LumoVision, a sorting technology that will minimize toxic contamination in corn.

