

Enabling a Healthier World

Lonza

Sustainability Report 2020

Close-up of the center of a flower

“Safety and sustainability are critical conversations in how we plan, execute and evaluate every aspect of our work.”

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Our Commitment to Sustainability



Pierre-Alain Ruffieux
CEO, Lonza Group

Dear Stakeholders and Friends of the Company

Welcome to the Lonza Sustainability Report 2020.

2020 was a unique year that combined unexpected challenges and opportunities for the global Lonza business. The arrival of the COVID-19 pandemic meant that our health, safety and sustainability professionals have played a critical role in protecting our employees and securing the continuity of our operations through the course of the year. More widely, we worked quickly to establish a dedicated COVID-19 Taskforce, which brought together multiple business and corporate functions to ensure that we could continue to deliver essential products and services to our customers at a time when the need has never been greater. We have also played an active and decisive role in controlling the pandemic, by bringing on line new production facilities and technologies, including the fast-track introduction of manufacturing suites for the Moderna COVID-19 Vaccine drug substance.

While working to manage the challenges and opportunities of the pandemic, we have also met most of our safety and sustainability targets and expectations. The safety of our employees has always been a top priority for us and we are pleased to say that in 2020 we made around 34,000 safety improvements across our site network. These were mainly driven by the vigilance and diligence of our employees, and resulted in one of our lowest recorded years of lost-time injuries.

We have been making progress across many key environmental areas, by reducing energy and water consumption and carbon emissions for both intensity and absolute values at the same

time when compared to our baseline year (2018). We have also started a journey towards more renewable energy supplies, and increased onsite generation and offsite sourcing.

In 2020, we have worked internally to establish a new Diversity and Inclusion Taskforce. This will help us to embrace the value of a diverse working community. Specifically, the Taskforce will help us to tackle less obvious issues, including hidden diversity and unconscious bias. Finally, we have made local communities investments, by providing critical resources where they are needed the most. We have provided disinfectants and protective equipment to local hospitals, and supported hygiene projects in locations where the risk of infection remains high.

Our commitment to sustainable development remains unchanged as we move away from the chemical industry and refocus on the healthcare industry. While we are pleased with the results of our initiatives, we also see the need to accelerate our plans, and review our footprint and targets. We recognize that environmental and societal considerations are an ethical imperative for our business, as well as being increasingly important for our healthcare customers and wider society. For instance, it is clear that greenhouse gas emissions have become a focal topic for the industry and we will consider accelerating our efforts towards achieving neutrality. Today, supply chain networks are under increasing scrutiny for their social and environmental responsibility, which spurs us to examine upstream and downstream implications.

We enable our customers to deliver new and innovative medicines that help treat a wide range of diseases. We engage and equip our employees with safe and modern workplaces, and we support our communities with innovative initiatives and resources. As part of a wider network we aim to collaborate with customers, suppliers and stakeholders to maintain and protect human rights, while reducing the footprint of the entire supply chain. We will maintain a focus on these critical areas of our work, and we will review targets, baselines and governance as we continue to develop our organization.

Finally, I would like to take this opportunity to thank all of our employees. Sustainability is not just a set of activities and programs; it is a collective purpose and mind-set. Our employees maintain and enhance our approach to sustainability every day through their interest, initiative and innovation. The work shared in this report is a testament to their endeavour and commitment.

Our Policy

Compliance and Integrity

We ensure that regulatory compliance, integrity and ethical conduct are the foundations in every place we operate.

Vision ZERO

We continually improve our systems and aspire to ZERO incidents, injuries or emissions.

Our People

We develop our employees by helping them grow. We provide safe workplaces, care for employees' well-being and foster their involvement and participation.

Our Environment

We improve our environmental footprint by continually reducing energy, water and material demand.

Value for Society

We create value for society by delivering science-based solutions to develop the medicines and consumer products of tomorrow. We engage in the communities where we operate.

Introduction

Safety and Sustainability is an essential part of how we do business. As one element of our overall sustainability commitment, we foster transparency and reporting in line with the Global Reporting Initiative (GRI) Standards, which represent the accepted industry practice for tracking performance on a range of economic, environmental and social indicators.

In 2018, a Sustainability Council was established by our Executive Committee to help us implement sustainability and share best practices across the global company. The cross-functional Council is headed by the Lonza Group General Counsel and includes additional members from Environment, Health, Safety and Sustainability, Human Resources, Investor Relations and Communications. It directly interacts with the Executive Committee and the Board of Directors. The ultimate responsibility for all sustainability matters lies with the Chairperson and the Board. The Council's objectives are to:

- Establish and communicate sustainability goals and provide guidance and support to those Lonza teams engaged in sustainability initiatives;
- Encourage sharing of established best practices across divisions and functions throughout Lonza;
- Focus attention on and provide leadership for driving sustainability at Lonza;
- Serve as a link and source of dialogue between internal networks in Lonza and external stakeholders.

The 2020 Sustainability Report provides insights into our commitments and performance regarding the most relevant sustainability topics for us and our stakeholders, for the whole of Lonza, including the Specialty Ingredients segment. This report builds on the work shared in previous Sustainability Reports, including the materiality assessment, which prioritizes the themes, initiatives and focus areas that best support sustainable development from a stakeholder and company perspective. We also continue to strive for alignment with the United Nations (UN) Sustainable Development Goals (SDGs), which are relevant to our business.

Lonza and the UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) comprise a broad range of sustainable development topics, including alleviating poverty and hunger, improving health and education, reducing inequalities, promoting responsible consumption, combatting climate change and protecting natural resources.

For many years, our products and services have helped our customers to support developing global necessities, such as the need for healthy and abundant food, clean water, affordable medicines and healthcare, and growing global demand for enhanced hygiene, health and well-being.

We have assessed the 17 SDGs and identified the eight that we consider the most relevant to our industry, operations and sustainability focus areas. As a manufacturer mainly serving industrial customers, we are part of a bigger network to advance towards these goals. The eight relevant SDGs are listed below. We have tied each material topic from the Materiality Assessment to a relevant SDG.



Our crop protection solutions offer highly effective products which improve crop yields and reduce farmers' needs for pesticides, herbicides or water. Our Capsules and Health Ingredients portfolio includes ingredients for dietary supplements and a broad spectrum of delivery technologies.



In the Lonza Pharma Biotech & Nutrition business, we work to enable our customers to meet some of the greatest challenges in patient treatment. We achieve with products, services and cutting-edge technologies that can help to save, extend and enhance lives. Our Consumer Health & Nutrition business provides advanced nutritional ingredients used in a broad spectrum of products, from energy drinks and dietary supplements to sports nutrition. Our Home & Personal Care business provides certified organic and natural cosmetic ingredients as well as other skin and haircare treatments that help people to feel and look their best.



We have established several partnerships with universities worldwide. We also engage in sponsoring activities with educational institutions. For example, Lonza India has continuously supported a local school and in 2020 helped to renovate a child care and elderly support center in Haryana, India. This center will provide food, education and other services to people in need.



We gain competitive advantage and strength by having a diverse global employee community, where we see the value and benefit of differences in characteristic, preference, perspective and belief. In addition to offering equal pay for equal work, we provide flexible workplace policies that acknowledge the need for a healthy balance between personal needs and working lives. In 2020, we formed a global Diversity and Inclusion Taskforce which is responsible for creating a roadmap to ensure that all Lonza employees can thrive.



We recognize that our people are the cornerstone of our success. We empower our employees to excel, to broaden their skills and business experiences, and to pursue their desired career paths and goals. When we prosper, we can provide benefits to our employees, their families, our local communities, regional suppliers and society at large.



We continuously invest in innovation while further improving our operational excellence. We have a robust global supply chain and state-of-the-art manufacturing and research facilities. We are also the pioneers of vital, game-changing technologies, including gene editing systems and automation. In 2020, large investments were made in the research and development of leading manufacturing technologies.



Within our manufacturing operations, we strive to continuously diminish our impact on the environment, conserve energy and natural resources and reduce our carbon footprint and waste. This commitment includes sourcing materials from responsible, sustainable producers that meet strict compliance standards.



In 2018, we set new intensity goals for energy consumption, carbon emissions and waste generation for 2030. In 2020, we achieved a substantial reduction in greenhouse gas emission intensity from our processes, excluding the N₂O leakage, compared to 2018. Going forward we will continue to strive to improve our energy and resource efficiency and reduce our carbon footprint to levels required by the Paris Agreement.

Lonza Material Topics and Relevant Sustainable Development Goals

Material Topic	SDG
Quality and Reliability	2, 12
Economic Performance	8
Environmental Compliance	12
Socioeconomic Compliance	12
Customer Satisfaction	3
Anti-Corruption	8
Protection of Human Rights	5, 8
Occupational Health and Safety	3, 8
Employee Engagement	5, 8
Innovation	9
Waste and Recycling	3, 12
GHG Management	3, 12, 13
Non-Discrimination	5, 8
Customer Health and Safety	3, 12
Energy Conservation and Efficiency	9, 12, 13
Talent Management	4, 8

Lonza and the Fight against COVID-19

Across the globe, most of our facilities kept operating throughout the pandemic in 2020 as they were defined “essential”, delivering medical treatments and microbial control solutions. Lonza has already played a critical role in the ongoing COVID-19 pandemic as a manufacturer of various treatments from vaccine production to manufacturing of anti-viral drug components.

Over the course of 2020, our Pharma and Biotech business continued to develop and manufacture a large number of life-saving treatments, while forging new agreements to manufacture COVID-19 therapies for our customers. In May 2020, we entered into a landmark ten-year agreement with Moderna Inc. to manufacture the drug substance for Moderna COVID-19 Vaccine. This forms part of a wider agreement to work on further mRNA-based collaboration projects from Moderna’s innovation pipeline. For Lonza this created a substantial pressure to establish processes at record speed, underlining that the agreement was driven not only by commercial considerations, but also by a desire to take an active and decisive role in controlling the pandemic.

Our Specialty Ingredients segment focused on delivering COVID-effective microbial control solutions which have been more critical than ever to maintaining the hygiene and safety of hospitals, homes, schools and workplaces around the world. In August 2020, 16 Lonza disinfectant products secured United States Environmental Protection Agency (EPA) approval for surface use against SARS-CoV-2 virus.

Navigating a Pandemic: The Global COVID-19 Taskforce

To steer the company through the pandemic, a Global COVID-19 Taskforce was formed in January 2020 when COVID-19 first began emerging as an issue in Asia. The Taskforce comprises representatives from different functions including Operations, Legal, HR, EHS&S, Corporate Risk and Strategy Implementation and Communications. The group has worked assiduously throughout the pandemic to address challenges around the globe, protect the health and wellbeing of Lonza’s employees and their families and ensure supply continuity for essential healthcare products and services.

As the pandemic progressed, additional working groups were formed to tackle the specific challenges that emerged. Regional working groups for the EMEA, APAC and Americas regions were convened, as well as groups to address more specific issues such as personal protective equipment (PPE) supplies and supply chain security. Each of these working groups report into the Global COVID-19 Taskforce to ensure a consistent response across the business. In addition, a business taskforce was formed to assess potential COVID-19 therapeutics where Lonza could be of assistance in the global fight against COVID-19. We focused our attention on those projects where our involvement would create the most beneficial outcomes, such as Moderna’s COVID-19 Vaccine.

Protecting our Employee Community

From the start of the pandemic, Lonza placed employee health and safety as its top priority. As a manufacturing company, our employees based in factories and laboratories continue to attend workplaces to maintain business continuity. For site-based colleagues, we have implemented specific provisions at each site to afford the highest levels of infection prevention and safety to all employees. Such measures include daily temperature screening, social distancing on site, sufficient supply of personal protective equipment, more regular and stringent disinfecting schedules and split team work arrangements.

For our employees who were required to make the transition to home working, we provided additional resources to assist with remote working practices, including guidance on making the best use of technology, time management and support on staying motivated and connected to colleagues.

The well-being of our employee community has been a priority throughout the pandemic, and our Human Resources teams have been carefully monitoring both teams and individuals, with specific attention to childcare, personal health and mental well-being.

To recognize and reward the huge commitment made by our employees throughout the pandemic so far, all Lonza employees were given an additional two half days of vacation to take during the summer months to allow them to rest and spend time with their families.

Vaccine Development and Other COVID-19 Projects

Lonza received more than 200 inquiries relating to COVID-19 projects in 2020. Our approach was to focus our resources on projects where our involvement could contribute to the most significant positive outcomes for society. In May 2020, Lonza and Moderna entered into a ten-year agreement, in which Lonza became the manufacturing partner for Moderna's mRNA technologies. Specifically, Lonza was listed as the preferred manufacturer for the drug substance of Moderna COVID-19 Vaccine, one of the first vaccines to be considered safe and effective for deployment in the long-term fight to control COVID-19.

In addition to our work with Moderna, we are also busy with a number of additional COVID-19 projects:

- We have signed an agreement to manufacture AstraZeneca's COVID-19 long-acting antibody combination AZD7442 at our Portsmouth (USA) site;
- We have been confirmed as a manufacturing partner for Altimmune's AdCOVID, a single-dose intranasal vaccine candidate for COVID-19 ;
- Collaborating with Humanigen to expand lenzilumab manufacturing capacity in advance of a potential Emergency Use Authorization. Lenzilumab is an antibody with the potential to prevent and treat an immune hyper-response called a 'cytokine storm' in COVID-19 patients;
- 16 Lonza disinfectant products have secured U.S. EPA approval for surface use against SARS-CoV-2 virus.

Diversity and Inclusion at Lonza

Recognizing that diverse environments not only make a meaningful personal and professional difference to employees, but also drive business value by creating dynamic teams, we established a Diversity and Inclusion Global Taskforce in 2020.

The Diversity and Inclusion Taskforce reflects diversity through gender, age, seniority, ethnicity, personal and professional experience. The Taskforce is responsible for developing a roadmap to mitigate unconscious bias, foster inclusive leadership and ensure that all Lonza talents thrive. Embracing the fact that employees are the cornerstone of our business, the first remit of the Taskforce was the identification and selection of a local Diversity and Inclusion Ambassador network. Through an open application process in 2020, in which there was overwhelming participation, the Taskforce selected a number of Ambassadors who will provide a face and voice for Diversity and Inclusion at Lonza, and help bring global initiatives to life at a local level.

The Taskforce is assisted and guided by a Diversity and Inclusion Steering Committee, a group comprised of senior experts across Legal, HR and Communications. The Steering Committee supports the Taskforce to further develop ideas that are relevant and appropriate to the Lonza Group business, before final recommendations are shared with the Executive Committee.

Lonza and the Fight against COVID-19



Greenwood (USA)

Our Greenwood site implemented Lonza's global measures, such as splitting teams, infection follow-up, increased cleaning and sanitization. All colleagues were required to work remotely, where possible. These measures helped to ensure the safety of our colleagues, their families, and our customers.

The site also implemented the following innovative measures to keep employees safe and to assure continuity of operations:

- Established operational zones with approval process for any inter-zone crossing;
- Online visitor safety orientation and an online contractor safety orientation. Both paperless trainings to help promote social distancing and communicate our safety, environmental, security, and site cGMP requirements;
- Digital EHS communication throughout the campus;
- COVID-19 preventive measures topics are shared with colleagues to educate their family members on how to protect themselves during the pandemic;
- Ergonomic measures, including stretching exercises shared with office colleagues working remotely.

Despite the pandemic, the site continues to take steps to help improve safety and the environment, including on-site solar panels, inline manufacturing to reduce waste, improved ergonomics and operational efficiencies, QR Code Safety Inspections and continuous reduction of waste to landfill through recycling or repurposing.

Williamsport (USA)

Lonza Williamsport has been an essential producer of disinfectants for the local community, helping hospitals, schools, nursing homes and frontline workers to manage the COVID-19 pandemic. The site was recognized by US-Congressman Fred Keller, for its work to control and contain the spread of infection.

Colmar (FR)

In response to the spread of COVID-19 in France, our site in Colmar donated more than 10,000 pieces of personal protective equipment to the medical teams at the Civil Hospitals of Colmar.

Visp (CH)

Due to a global shortage of disinfectant supplies at the start of the pandemic, Lonza Visp undertook to produce disinfectants on site. The project first began as an apprentice-led endeavor producing small quantities of disinfectant (based on a WHO recipe) for internal use. Over time, it became a larger project that served not only Lonza but also the home-canton of Valais and the local community. Lonza agreed to produce large quantities of disinfectant for the cantonal health authorities to support local hospitals, nursing homes and other institutions. The disinfectant was also available for purchase in Valais pharmacies at cost price. In light of the additional risk of the seasonal flu, and given the shortage in flu vaccine stocks in late 2020, our Lonza Visp colleagues donated part of their influenza vaccine stock to the medical community in the Valais region.

Nansha, Nanjing and Suzhou (CH)

At the beginning of 2020, the COVID-19 pandemic was spreading rapidly in China. Our colleagues in our Chinese sites in Nansha, Nanjing and Suzhou navigated this disruptive situation with professionalism and rigor.

Chen Hong Associate Director EHS

As a source of inspiration, earlier in March we shared the testimonial from our Nansha EHS colleague explaining how COVID-19 impacted her daily life and how the site managed to continue operations, while keeping employees safe:



About Lonza

Founded in Switzerland in 1897, we are one of the world's leading and most trusted suppliers to the pharma, biotech and specialty ingredients markets. We work together to develop medicines and products that improve and save lives.

We strive to minimize our impact on the environment, conserve energy and natural resources, and help to improve the quality of life.

The goal of our Vision Zero initiative is to reduce workplace accidents and injuries, environmental incidents, manufacturing process incidents and transportation incidents. Through these and other safety, quality and human resource initiatives, we strive to make a meaningful difference.

More information on our business and markets is provided in the [Our Businesses](#) section of our Annual Report.

Lonza Pharma Biotech & Nutrition (LPBN)

Small Molecules

Cell & Gene

Biologics

Capsules &
Health Ingredients

Lonza Speciality Ingredients (LSI)¹

Discontinued Operations

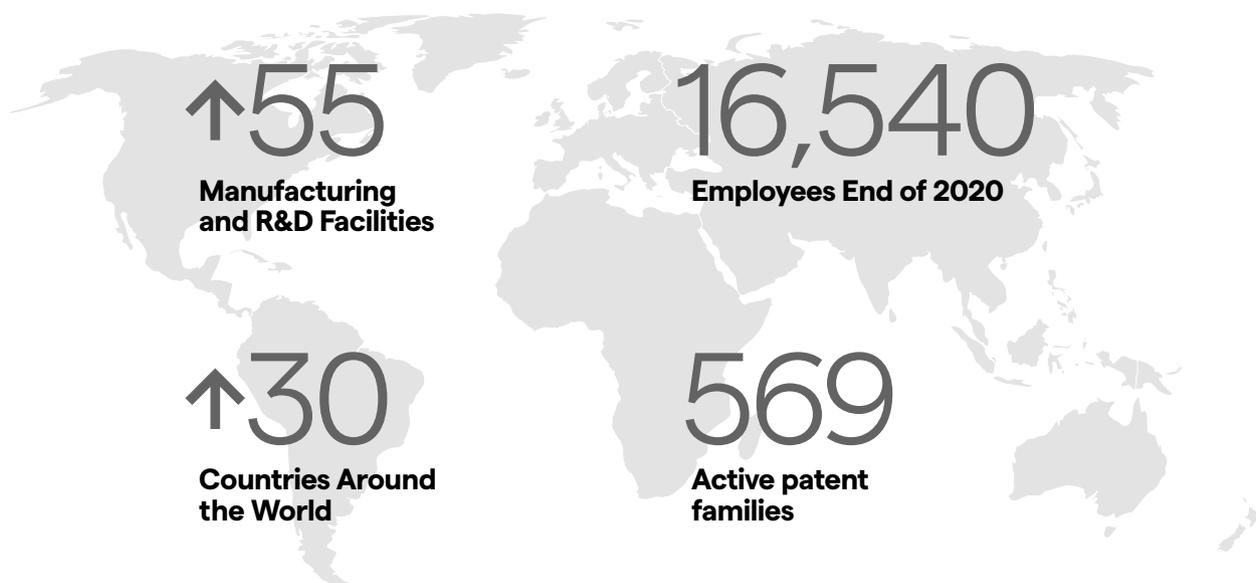
Microbial Control Solutions

- Hygiene
- Home & Personal Care
- Wood Protection
- Material Protection
- Paints & Coatings
- Crop Protection

Speciality Chemicals Services

- Composite Materials
- Custom Development & Manufacturing
- Performance Intermediates & Chemicals

¹ In February 2021, Lonza signed an agreement to divest the Specialty Ingredients segment to Bain Capital and Cinven. The transaction is expected to close in H2 2021.



Our Strategy

In 2020, we navigated a unique operating environment, as the business world absorbed and learned to manage the impacts of the COVID-19 pandemic. Internally, the decision to divest the LSI segment provided an opportunity for us to refocus on our objective to consolidate our position as a leading partner to the healthcare industry, and we have redesigned the Lonza company structure to meet customer needs and expectations. Concurrently, we remained responsive to the demands of the pandemic, and the developments of the industry. This strategic approach has enabled us to deliver a strong set of financial results while ensuring that the business is set up for long-term success. Importantly, it has also allowed us to make an active and decisive contribution to controlling the pandemic.

Business Performance and Innovation

In the context of the COVID-19 pandemic, we have redoubled our focus on ensuring business continuity and maintaining resilience. We have worked to strengthen our supply chain and increase our free cash flows, while implementing new safety measures to ensure that employees can still safely attend our manufacturing plants and laboratories. We have been impressed by our people's resolve, dedication and energy throughout the pandemic, as they have adapted to their new working conditions.

To further improve margins during a time of high CAPEX investment, we have redoubled our efforts to deliver lean operations, while maintaining our focus on quality. Although speed has always been an important consideration for our customers, it has become a critical necessity in the context of the COVID-19 pandemic. Our agreement to manufacture the drug substance for the Moderna COVID-19 Vaccine progressed from contract negotiations to production in eight months at our site in Visp (CH), and even more rapidly in Portsmouth (USA).

We are also working on process innovation by increasing automation to streamline human intervention. This can be seen in our Cocoon® Platform, which improves efficiency in cell therapy manufacturing by providing an automated, closed production platform.

Our approach to innovation further extends across the entire breadth of our divisional offerings from small molecules to biologics. Our Ibex® Solutions offering provides pre-built capacity that can deliver drug product for clinical trials, and expedite clinical and commercial production. We are also extending our capabilities in meeting our customers' complex manufacturing needs, across a wide variety of products and services.



Sustainability

Sustainability is a strategic priority for our business. We have an ethical responsibility to protect the environment, promote diversity and invest in our local communities. It is also an increasing priority for our customers, investors and employees.

We have an established track record in delivering improved levels of environmental stewardship. We are reducing our energy consumption and carbon footprint, while refocusing on renewable energy resources. We are also continuing to decrease our industrial water intensity.

Alongside these important measures, we are taking steps to become a more inclusive and purpose-led organization. In 2020, we established a global Diversity and Inclusion Taskforce to ensure that we provide a welcoming environment in which colleagues are valued for their differences of characteristic, preference, perspective and belief. We have also worked on multiple community investment projects across the locations and markets in which we operate.

Long-term Focus

All four of our LPBN business divisions operate in growing markets, and our long-term demand forecasts have left us confident to make significant and sustained investments in capacity expansion. We plan to maintain existing levels of CAPEX expenditure for the next two years, to ensure that we fully capitalize on market growth opportunities. In the short term we are working to maintain margins by managing our OPEX, when facilities and operations come online and commence ramp-up. Looking to the longer term, these investments are set to deliver sustained growth while differentiating the scope and scale of our offerings.

Our Governance

In accordance with the law and the Lonza Articles of Association, the Board of Directors is the most senior management body of the Group. The Board of Directors defines the strategic direction and is responsible for the supervision of the persons entrusted with the Group's management.

The members of the Executive Committee are appointed by the Board of Directors. The Executive Committee is responsible for managing Lonza worldwide and for implementing policies and strategies as defined by the Board of Directors.

All sustainability-related matters sit with the Chairperson of the Board. Sustainability includes environmental, social and governance (ESG) matters of importance relating to our business and our stakeholders. The Sustainability Council headed by the Lonza Group General Counsel and Company Secretary manages identified material topics (as shown in the Materiality Matrix on page 22) and is responsible for sustainability reporting. The Head of Corporate EHS&S (Environment, Health, Safety and Sustainability) and the Corporate EHS&S team are responsible

for defining the EHS&S strategy, implementation and oversight of the Safety and Sustainability Policy. The Corporate EHS&S teams report to Lonza's Group General Counsel.

In 2020, we established a Diversity and Inclusion Taskforce, to ensure differences of characteristic, preference, perspective and belief are valued across the Lonza business. Additionally, we further advanced our considerations of embedding ESG targets in our executive compensation framework. However, there were major organizational changes at Lonza in 2020 including the sale of the LSI segment, the need to implement a new organizational structure focused on the pharma and biotech industry, as well as the arrival of the new CEO in November 2020. In this context, we took the decision to finalize the implementation of this important development in 2022.

The sustainability report is reviewed by the Nomination and Compensation Committee (NCC) and the Audit and Compliance Committee (ACC) in accordance with our financial reporting. It is finally approved by the Board of Directors.

Further details on Corporate Governance and the Group Structure can be found in the [Corporate Governance](#) section of our Annual Report.

Precautionary Principle or Approach and Key Impacts, Risks, and Opportunities

We apply the precautionary principle within the systematic risk management framework. Risk management is a process applied from a shop-floor level up to the top risks for the whole company. Selected elements include:

- Job safety analysis, technical safety reviews of equipment;
- Process hazard analysis, audits and inspections;
- Site risk analysis, including fire safety, natural risk, interruption risk;
- Supply chain risk analysis;
- Enterprise risk management.

The Enterprise Risk Management (ERM) program is a critical platform for our global organization and business, as it provides a mechanism and structure for prudently addressing risk, responsibility and management across every level of the organization. Our ERM process enables us to develop a specific set of risk themes along with top areas of concern and high-level mitigation actions, linked to the activities of functional, business and operations teams. Year-on-year dynamics are captured by classifying risk themes as increasing, decreasing, new and continuing. The risk portfolio is discussed annually with the Executive Committee and the Board of Directors. Some of the trends influencing the industry are viewed as opportunities rather than risks for healthcare and hygiene companies such as ours. Current trends include aging societies, growing populations and the increasing need for safe and abundant food.

For more information, see Enterprise Risk Management (ERM), in the [Financial Statements](#) section of our Annual Report.

Our Employee Community

As a purpose-led and responsible company, we are an attractive employer for our 16,540 employees worldwide¹, including the Specialty Ingredients business. We value a solid education and further training and equal opportunities for all employees.

At a local level, we aim to ensure that fair and competitive compensation is paid to employees, as well as other benefits. Collectively, this provides a total rewards package that supports employee engagement and work-life balance. Lonza strives to fulfill country-specific equal pay requirements, including publishing results at country level. The company also regularly reviews pay equality throughout the global employee population.

We monitor and analyze turnover at different levels of the organization, including global and site-level, as well as for specific functions or populations of the workforce. As a result, site-specific measures have been defined and talent acquisition strategies have been specifically developed to proactively scout for priority profiles and experiences. We have also enhanced the exit process to better understand the reasons why employees may choose to leave Lonza. We have invested in technical infrastructure to better support reporting needs and we provide the information to the relevant bodies or managers who can use the data to have a direct beneficial impact. Overall, the turnover rate in 2020 has reduced slightly to 10.4%, partially as a result of these measures, as well as the general uncertainty in many geographies associated with the COVID-19 pandemic. More widely, our annual turnover rate is slightly below or in line with respective market and industry benchmarks.

Lonza has invested in a global system over the past two years, which has provided consistent and regular insights into time management across the network. These insights also helped us to manage the impacts to workloads arising from the COVID-19 pandemic.

This information is provided on a quarterly basis to the Board of Directors. In 2021, the global system will be further enhanced to include all sites, and we will launch an even more comprehensive and manager-focused time management monitoring service.

In an effort to support our employees more broadly – including their professional, personal, psychological and financial needs – a global Employee Assistance Program (EAP) was launched in the second half of 2020. This program complements several existing local support services by offering anonymous counseling through a specialized partner organization. Furthermore, throughout the year, specific training, information sources, and other resources were made available on topics including remote and virtual management, resilience and professional learning. Building on the organizational feedback and interest received, in the second half of 2020 a partnership with a leading global learning platform was established. We expect this to democratize learning opportunities and complement our tailored training and development programs, such as programs to support first-time people managers at Lonza.

Additional insights may be gained through the [Talent Management](#) section of the Annual Report.

Employee Ethics and Compliance

The values and principles of the latest version of Lonza [Code of Conduct](#) were approved by the Board of Directors in 2017. The Code of Conduct is now available in 14 languages for all our employees as well as the public. An interactive Code of Conduct is available with additional details and examples for our employees, which includes easy-reference links to important information. Employees are required to take an annual interactive Code of Conduct training. This training is delivered via an online course, dealing with topics addressed by the Code of Conduct, including anti-bribery, competition law and conflicts of interest. All employees explicitly consent to uphold the values expressed in the Code of Conduct.

Our Ethics & Compliance Group provides guidance in recognizing, understanding and complying with the laws and ethical standards that govern our business practices and activities. This is supervised by the Audit and Compliance Committee of the Board of Directors. In addition, we have established a “whistleblower” hotline (known as the “Lonza Ethics Hotline”), operated by an external provider. The Lonza Ethics Hotline ensures that concerns can be raised anonymously if preferred and where allowed by law. All concerns and reports are, where warranted, investigated by our Ethics & Compliance Group and are finally reported to the Audit and Compliance Committee.

¹ The number of employees (Full-Time Equivalent) for the Continuing Business is 13,856 (i.e. exclusive of LSI that was reclassified to discontinued operations).



People cycling at Reforma street in Mexico city

Our Supply Chain

Drawing on a broad global base, the Procurement teams play a vital role in cost-effectively providing the right raw materials and indirect goods and services to our manufacturing, research and development sites worldwide.

Together with stakeholders from the different businesses and functions, the Procurement teams develop solid approaches for spend categories across a diverse range of strategic raw materials and services. The team also enhanced data quality, analytics and dashboards to track and communicate performance and progress.

Ensuring Seamless Supplies

The Procurement teams faced various challenges in 2020. Due to the COVID-19 pandemic, additional activities and efforts became necessary to secure continuity of supply for all sites and to ensure appropriate communication along the supply chain. Risks associated with tighter environmental policies and supply challenges and disruptions in China required the preparation of mitigation plans with our qualified suppliers and source diversification. Uncertainties, such as the consequences of Brexit, and changes in trade agreements, (including new trade barriers), presented additional challenges to our supply chain. We were able to respond to these challenges appropriately and effectively. In addition, the team navigated several unexpected force majeure events effecting major suppliers. Those events and related geopolitical challenges encouraged us to strengthen our risk management, mitigation processes and tools. An end-to-end risk management process has been developed and rolled out to automatically assess risks to Lonza's raw materials against a five-gate risk register. This process allows the identification of all high risk items from a business continuity perspective and the development of appropriate mitigation plans.

Value Chain and Supply

The breadth and diversity of our businesses mean that the supply base comprises approximately 27,000 suppliers. The roughly 3,000 direct material suppliers range across cracker feedstock for our Visp site, basic chemicals, and naturally derived materials such as gelatin, to high-end systems and consumables for biopharmaceuticals, or specialized components for cell and gene therapy production. Eighty percent of spend originates from European or North American supply locations, the remainder from locations across the world. Half of our third party spend is on indirect goods and services (including energy, logistics and equipment).

In order to cope with this complexity, our procurement teams include category managers and site-based buyers, all focusing on procurement excellence. They develop and implement category strategies, manage the selection of suppliers and negotiation of terms, reduce exposure to supply risks, and scout, evaluate and drive technical innovation and digital solutions. All these activities are designed to continuously improve internal efficiency and enhance customer experience.

Sustainability in Procurement

By engaging with stakeholders, we have been able to identify gaps, future trends and requirements regarding sustainable sourcing and supplier risk assessment. The resulting procurement processes include:

- Enhanced approaches for sustainable procurement, increasing the number of assessments and audits of our strategic suppliers;
- Voluntary membership of sustainable sourcing platforms to engage with our industries and to enhance our capabilities;
- Maintaining a systematic and integrated supplier risk management system.

We are a member of the Pharmaceutical Supply Chain Initiative (PSCI). PSCI is an association of pharmaceutical, biotech and medical device industries. Its aim is to establish and promote responsible practices to improve ethics, labor, health, safety and environmentally sustainable outcomes, as well as to improve supplier capability for the members' supply chains. This active membership enhances the firm's capabilities and processes in sustainable supply chain management. As a PSCI member, we perform audits of key suppliers and are in turn audited with a similar scope by our customers.

In addition, Procurement established a comprehensive and integrated supplier risk-management process to support sustainable business growth by capturing opportunities, anticipating and mitigating supply risk.

The following key principles define the risk management framework using Enterprise Resource Planning (ERP) automation:

- Key supplier risk assessment and management by global procurement experts;
- Integrating risk assessments into business processes to enable and support business continuity;
- Using criteria and a risk register for scalable assessments of materials and suppliers;
- Monitoring and ranking supply risks, including risk mitigation and implementation;
- Embedding in the risk assessment process the supplier's on-time/in-full delivery and quality performance ratings.

Due Diligence

As part of our commitment to sustainable development, Lonza's [Supplier Code of Conduct](#) sets high standards for suppliers and provides a framework to evaluate their practices.

We carefully select and evaluate suppliers for security of supply and specifications of materials and services. We also audit some of our critical suppliers to assure and improve performance and relationships, in line with the Pharmaceutical Supply Chain Initiative (PSCI) principles.

We operate an automated anti-bribery and anti-corruption due diligence process, monitoring for high-risk suppliers. This is run by the Ethics & Compliance Group and integrated into the procurement and supplier management process through our enterprise resource planning (ERP) system (SAP). Third parties in qualification are blocked in SAP until the due diligence process is completed.

The process includes real-time corruption, trade sanctions, and adverse media screening for all third-party suppliers with increased due diligence for higher-risk third parties. For the latter, the process includes mandatory completion of a due diligence questionnaire and a custom made anti-bribery and anti-corruption training, as well as competition law. Third parties with higher risk profiles are then further reviewed and assessed by members of the Ethics & Compliance Group.

Our suppliers are continuously monitored and, where relevant, full due diligence is completed on a two-year automated cycle. New Swiss and European legislation will increase the responsibilities of large companies for their selected supply partners. To ensure we meet these new requirements, we are defining the needs for an upgrade of our process. Specifically, conflict minerals and child labor will be introduced into the non-financial reporting requirements in the coming year.

Membership of Associations and External Initiatives

Lonza joined the [United Nations Global Compact \(UNGC\)](#) in 2009. We are committed to aligning our businesses and operations with these universally accepted principles of sustainable development. This encompasses the areas of human and labor rights, anti-corruption and environmental sustainability. Lonza is fully committed to the UNGC in implementing the UN Global Compact's Ten Principles and this report serves as our annual Communication on Progress (CoP). Our progress (CoP) is mapped in the GRI content Index at the end of this report.

We have been a member of the non-profit business membership organization [Pharmaceutical Supply Chain Initiative \(PSCI\)](#) since 2019. The PSCI is a group of pharmaceutical and healthcare companies, which share a vision to achieve better social, environmental and economic outcomes in members' communities.

This includes:

- Fair and safe work conditions and practices;
- Responsible business practices;
- Environmental sustainability and efficient use of resources.

The purpose of the initiative is to bring together the pharmaceutical industry to define, implement and champion responsible supply chain practices. It has developed a set of principles to deliver a more sustainable supply chain. We have embedded these principles in our Supplier Code of Conduct and actively encourage our suppliers to follow them.

We are a member of various associations in the biopharmaceutical, chemical and personal care industry sectors, as well as in the wider business community. Associations may serve a variety of purposes such as exchanging best practice, aligning on public policy issues or collaborating on advocacy activities. The list below includes some of those associations:

[Scienceindustries](#)
[SwissHoldings](#)
[Cefic, the European Chemical Industry Council](#)
[Swiss Biotech Association](#)
[Society of Chemical Manufacturers & Affiliates](#)

Examples from Lonza Specialty Ingredients Segment:

[Microbial Control Executive Council](#)
[Western European Institute of Wood Preservation](#)
[Wood Protection Association](#)
[American Coatings Association](#)
[American Cleaning Institute](#)
[Household & Commercial Products Association](#)
China Disinfection Association
[German Chemical Industry Association \(VCP\)](#)
[Society of Plastics Engineers, Inc. \(SPE\)](#)
[Crop Life New Zealand and Brazil](#)
[IPC](#)

Examples from Lonza Pharma Biotech & Nutrition Segment:

[Biophorum Operations Group](#)
[Drug, Chemical and Associated Technologies Association](#)
[Alliance for Regenerative Medicine](#)
[International Society for Cellular Therapy](#)
[International Society for Stem Cell Research](#)
[International Society for Pharmaceutical Engineering Association A3P](#)
[Parenteral Drug Association](#)
[Rx-360 Consortium](#)
[European QP Association](#)
[United Natural Products Association](#)
[Natural Products Association](#)
[American Herbal Products Association](#)
[American Botanical Council](#)
[Organic Trade Association](#)
[French National Union of Nutritional Supplements](#)
[Belgian Federation for Food Supplements, dietary and organic products](#)
[Nature and Health Products Netherlands](#)



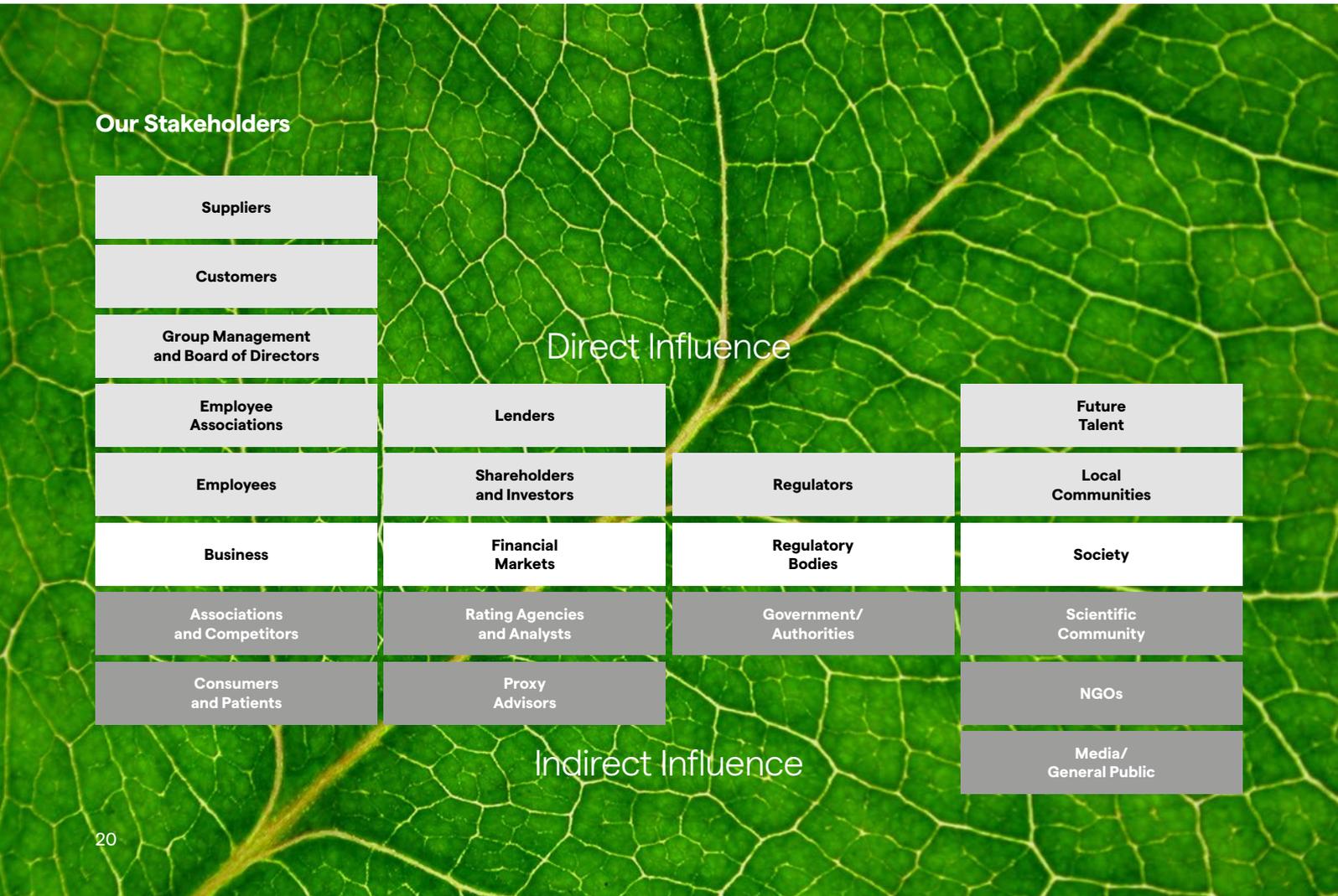
Our Stakeholders

We have identified relevant stakeholders, which may have a vested interest in our performance and can influence the direction of the company, both directly or indirectly. The stakeholder groups identified as relevant to us are shown below. We perceive inter-governmental bodies like the United Nations as authorities and the relevant agreements between states as a guideline for the whole industry. The Sustainable Development Goals guide and direct our corporate goals and approach to sustainability.

Stakeholder Identification Process

As part of the sustainability reporting process, the main stakeholder groups were identified and categorized according to how we may impact the stakeholder, and how the stakeholder may impact us. Results were verified with different entities within Lonza (Management, Business Units, Human Resources, Legal, Investor Relations and Communications), alongside external benchmarks.

The most relevant stakeholder groups (or their proxies) were involved in a materiality process to better understand their relevant requirements and priorities. The views of these stakeholders were included in the materiality survey: employees, customers, scientific community, financial analysts, future talent, media and our management and Board.



Our Stakeholders

Direct Influence			
Suppliers			
Customers			
Group Management and Board of Directors			
Employee Associations	Lenders		Future Talent
Employees	Shareholders and Investors	Regulators	Local Communities
Business	Financial Markets	Regulatory Bodies	Society
Associations and Competitors	Rating Agencies and Analysts	Government/ Authorities	Scientific Community
Consumers and Patients	Proxy Advisors		NGOs
			Media/ General Public
Indirect Influence			

Approach to Stakeholder Engagement

Our entities regularly engage with their relevant stakeholders on a local level, though not in any formalized manner guided by corporate requirements. We also remain active on several social media channels to receive feedback from individuals or groups.

An annual meeting with the European Works Council (EWC) involving senior leaders took place virtually in 2020, as a result of COVID-19 restrictions. It included an update and exchange on the business and support network of the EWC. There were also ad hoc information sessions with the EWC and its local representatives, to share relevant COVID-19 developments.

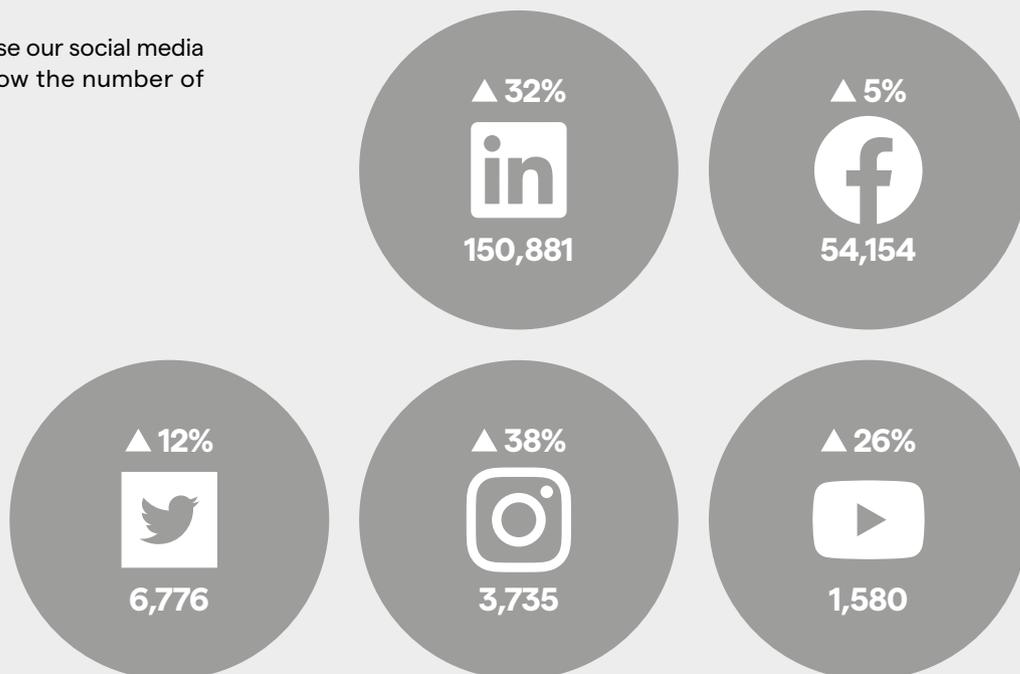
Around 40 to 60 regular exchanges took place with shareholders, key proxy advisors and rating partners around corporate governance, executive compensation developments, sustainability and other relevant topics. There is also regular contact with customers, which took place virtually this year.

As part of the sustainability reporting process in 2018, we specifically engaged with selected internal and external stakeholder groups, so we could include their views in the materiality survey. The survey provided a mechanism to engage with relevant stakeholders and to capture their input on topics to be reported upon, actively managed or simply monitored. All of those topics were addressed in the cross-functional Sustainability Council and shared with the respective departments.

Since commencing the publication of a dedicated Lonza Sustainability Report, further discussions with stakeholders have been initiated. The report focused on highly material aspects. Aspects rated moderate and low are not necessarily covered in our reports but are nonetheless monitored on a regular basis. Newly identified issues will also be analyzed, prioritized and integrated, based on their relevance. Our ongoing dialogue with stakeholders, especially with the sustainability experts of financial and proxy advisors, helps us refine our scope and identify other material topics.

Lonza Corporate Social Media Presence 2020

In 2020 we continued to increase our social media presence. These numbers show the number of followers as of 1 January 2021



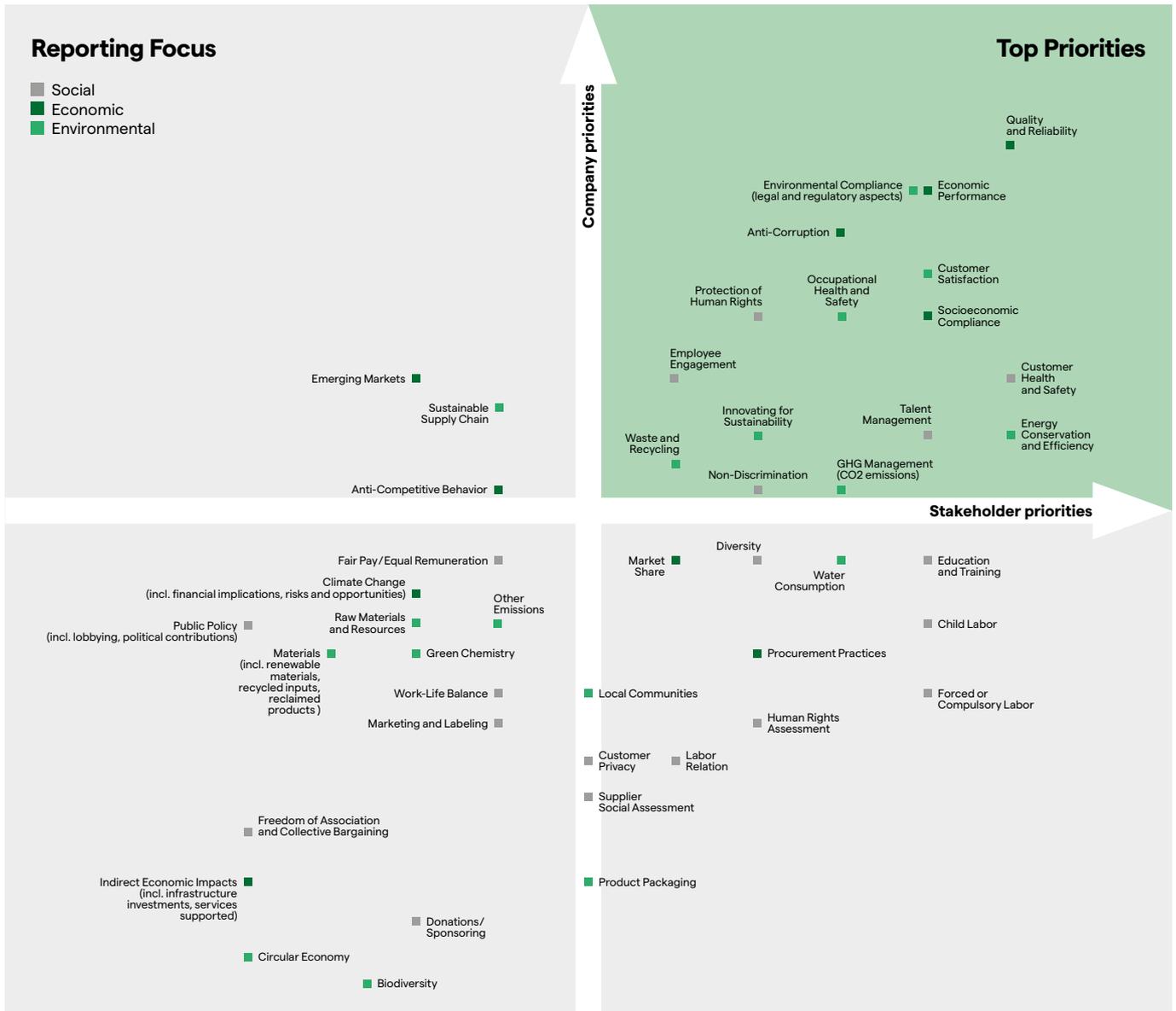
Our Reporting Focus

Building on stakeholder identification, we involved the relevant stakeholders to perform an analysis of material topics for sustainability reporting. The analysis focused on a broad range of potentially material topics. This analysis included the topics listed in the GRI, as well as others that were considered relevant to the industry. The materiality mapping, as shown here, was based on:

- The main sustainability topics raised by our stakeholders;
- The relevance for our business;
- Potential reputational impacts;
- Potential to influence or impact the topic;
- Significance (extent) of the impact on us.

The priority evaluation engaged the identified stakeholders in a survey to understand their perspective. Our priorities (see chart below) were validated by the Sustainability Council, Group Management and the Board of Directors.

Unless otherwise stated, the reporting boundaries for environmental data include the facilities for which we have operational control, own either the facility or significant relevant equipment, and where data are readily available and adequately representative. Facilities outside the reporting boundaries are smaller-sized leased facilities, laboratories, warehouses and office spaces with comparatively insignificant energy consumption.



Economic

- Economic Performance
- Anti-Corruption
- Quality and Reliability
- Customer Satisfaction

Social

- Occupational Health and Safety
- Non-Discrimination
- Protection of Human Rights
- Customer Health and Safety
- Socioeconomic Compliance
- Talent Management

Environmental

- Energy Conservation and Efficiency
- GHG Management
- Waste and Recycling
- Environmental Compliance
- Innovation



1,406 mio.

CORE EBITDA in CHF

4,508 mio.

Sales in CHF

1,095 mio.

CORE EBIT in CHF

31.2

CORE EBITDA margin in %

9.6

ROIC in %

All financial information referring to "Continuing Business" are exclusive of the Specialty Ingredients business that was reclassified to discontinued operations.

Economic

For more than 120 years, we have generated sustainable value for all our stakeholders – from our customers and suppliers to our employees and their families; from the communities in which we operate to our global shareholders. In recent years, we have tirelessly worked to improve our economic performance and value, as well as protecting our business by improving our approach to security, quality and reliability.

Economic Performance

We strive to focus on innovative, value-enhancing products and services for our customers, which help to deliver therapies, treatments and ingredients to enable a healthier world and contribute to a safe living environment.

We continue to focus on our sustainable growth trajectory while optimizing our business and product portfolios and making targeted investments. The Mid-Term Guidance 2023 for our continuing operations is the following:

- Double-digit sales growth per year driven by Biologics, Small Molecules and Cell & Gene Technologies businesses;
- Improved CORE EBITDA margin despite investments in growth projects (~ 33% – 35%);
- Double-digit ROIC driven by growth and margin expansion.

Lonza's Guidance for Full-Year 2021 is low double-digit CER sales growth and improved CORE EBITDA margin, both in line with the 2023 Mid-Term Guidance trajectory. While the businesses have shown strong levels of resilience during the pandemic, all forecasts should continue to be treated with some caution at this time of global uncertainty arising from the COVID-19 pandemic. To grow sustainably, in 2021 we will focus on the following key internal initiatives:

- Successful completion of divestment of LSI segment and review of plans for sales proceeds;
- Focus on maintaining business continuity through pandemic and execution of growth projects;
- Establish and strengthen systems and processes in the new business structure to optimize efficiency and delivery;
- Continued levels of CAPEX investment to deliver sustained growth and meet customer demand;
- Focus on talent attraction to support new CAPEX investments coming on line;
- Continued review of environmental, social and governance (ESG) measures under new and expanded leadership.

Please consult the [Corporate Governance](#) section of our Annual Report for information regarding overall company management and oversight.

Direct Economic Value Generated and Distributed

We strive to create value for our shareholders, customers, employees, suppliers and communities. We distribute our derived economic value to various stakeholders through a variety of streams. This includes governments through taxes, employees through compensation and benefits, shareholders through dividends and share price appreciation, suppliers and service providers through raw material and service prices, and society through taxes and local community projects. Part of the earned value is retained in the company for further growth through innovation, strategic investments or bolt-on acquisitions. Please consult *Statement of Value Added* in the [Financial Statements](#) section of our Annual Report.

Gross and Net Value Added 2020

(results refer to Lonza Continuing Business)

Item	Million CHF
Total income	4,653
Gross value added (deduction of services and goods bought from third parties)	3,043
Net value added (deduction of depreciation, amortization, and impairment)	2,564

Value Added to the Various Stakeholders 2020

(results refer to Lonza Continuing Business)

Item	Million CHF	%
To employees	1,643	64.1
To the company	526	20.5
To shareholders	206	8.0
To public authorities, taxes	95	3.7
To lenders	94	3.7
To non-controlling interests	0	0.0
Total	2,564	100

Anti-Corruption

We aim to conduct our business in an honest, fair and ethical manner. We take a zero-tolerance approach to bribery and corruption and we are committed to acting professionally, fairly and with integrity at all times. Furthermore, the business implements and enforces effective systems to help prevent bribery and corruption. We uphold all applicable anti-bribery and corruption laws.

Our Ethics & Compliance Group is charged with monitoring and promoting compliance with anti-bribery and anti-corruption laws. In addition, we operate an automated interface for third party due diligence and monitoring.

The Lonza Ethics Hotline provides a mechanism for employees and others to report potential violations of the Code of Conduct, our policies or procedures (including those related to anti-corruption), or applicable laws or regulations. Such reports may be made anonymously where allowable by law. Those found responsible for any violations may face disciplinary action, which may include termination of employment.

Operations Assessed for Risks Related to Corruption

We are exploring periodic risk assessments to identify business areas and geographies of corruption and bribery risk and implement mitigation steps where required. A global risk assessment was completed in 2018, which focused on antitrust, trade and anti-corruption.

Communication and Training on Anti-Corruption Policies and Procedures

All employees have access to our Anti-Corruption and Anti-Bribery Policy via our intranet. New employees receive an induction on anti-corruption and anti-bribery via an online training module. Anti-corruption and anti-bribery are also covered in our Code of Conduct and in the annual Code of Conduct training, which is a requirement for all employees.

Additionally, suppliers that enter into our standard supply agreement commit to our Supplier Code of Conduct, which sets out commitments to working against corruption and bribery. The Supplier Code of Conduct applies to both our suppliers and to any subcontractors or third parties that a supplier may engage in the performance of its contractual obligations. Currently, suppliers are required to implement internal measuring procedures, tools and indicators to guarantee adherence to the Supplier Code of Conduct principles, and are encouraged to report any violations via e-mail (compliancegroup@lonza.com) or via the [Lonza Ethics Hotline](#).

Improving Business Security

Security of information and data is a priority for our business. It enable us to ensure the continuing availability of our critical systems and to protect our information, including the information that is entrusted to us by our customers and partners.

The Lonza IT Security Department is responsible for ensuring that appropriate technical, procedural and organizational safeguards are in place our Information Systems, and for regularly testing for potential security weaknesses. The Department is also responsible for providing training to our employees and contingent workers on how they contribute to the security of our information assets. The IT Security team's activities in 2020 comprised:

- Assuring appropriate governance and policy structure, based on international standards;
- Implementing a robust, user friendly and scalable security architecture of solutions and services;
- Optimizing the security operations service;
- Decreasing possible business disruption and empowering associates to work securely.

The strategy of Lonza IT Security included implementing holistic, preventive, detective and reactive IT Security measures, in line with the relevant risk level. It also provides risk assessments, contributes to enterprise risk management, defines security and IT control requirements for projects and risk remediation measures. Finally, it aims to ensure that we meet applicable laws and regulations in collaboration with the Legal and Quality Assurance departments.

Continual training and awareness initiatives are run in the area of Information Security. Recent surveys indicate that more than 95% of our associates are aware their critical role in protecting our information.

During the COVID situation of 2020, additional security measures were taken to ensure the security and availability of Lonza resources to meet the needs of the increased number of home workers. New remote productivity and secure collaboration tools were added to the environment to ensure productivity and security standards were met. In addition, guidelines and procedures were enhanced, allowing continued performance during the stressful period.

Data protection

Data security is critical in order to conduct our business in compliance with applicable laws, while protecting our employees’ and our customers’ personal data. This has long been a focus for our Privacy Task Force, which meets monthly to address any concerns, news and developing issues. Taskforce members include our Data Protection Officer, and dedicated members from across Lonza’s businesses, sites, and functions, including colleagues from the Legal, IT and Marketing Departments. For example, in 2020 the COVID-19 pandemic brought new challenges related to the number of Lonza employees working from home, with Legal, HR and IT Security regularly working together to examine the data protection impact assessment.

We take data protection seriously, and we follow the worldwide implementation of the European General Data Protection Regulation (GDPR), one of the most comprehensive and robust data protection laws in the world. In 2020, we introduced an Internal Data Protection Guideline that every employee now commits to follow. This Guideline will also be included in the yearly Code of Conduct training.

Measures and Activities to Enhance IT Security

	<p>Preventive Measures</p> <ul style="list-style-type: none"> • Enhanced Technical Standards • Various countermeasures in place to address modern threats 	<p>Incidence Response</p> <ul style="list-style-type: none"> • Data Breach Response Plan • Security Incident Response Plan • Active Security Operations Centre monitoring and Response team 	<p>Testing</p> <ul style="list-style-type: none"> • Penetration tests of our critical systems • Phishing simulations and other active tests • Compliance testing and assessments
	<p>Training</p> <ul style="list-style-type: none"> • Security Fundamentals • Data Privacy • Periodic Awareness Updates, E-trainings, simulated Phishing and On-site trainings 	<p>Policy & Framework</p> <ul style="list-style-type: none"> • Framework for IT Security and Compliance • Technology Standards • Processes and Procedures 	<p>Governance</p> <ul style="list-style-type: none"> • External advisory board featuring distinguished professors from two Universities • Active Internal Compliance committees with representatives from across the business • Periodic Executive Committee and Audit and Compliance Committee briefings

Quality and Reliability

Excelling in Quality Management to Create Value

Our solutions range from lifesaving medicines to nutritional supplements, from hospital and home disinfectants to biocides that prevent the growth of harmful molds. All of this requires us to satisfy and exceed customer expectations, as well as meeting strict regulatory and quality requirements. That is why our advanced manufacturing, operational excellence, quality control and quality assurance systems are critical to our business success. According to our Quality Policy, our management priorities include the following:

- Delivering high-quality, safe and effective products and services that meet or exceed customer expectations;
- Complying with current regulatory requirements and applicable standards;
- Continuously improving our quality management system, products and services.

To achieve these goals, we operate a quality management system that meets or exceeds customer requirements, internal policies, as well as national and international standards such as ISO and regulations. These include current good manufacturing practices (cGMP), Pharmaceutical Inspection Convention (PIC) and Hazard Analysis Critical Control Point (HACCP). The fundamental elements of the quality management system are continuously undergoing improvement. We monitor our performance with KPIs and this information is provided on a quarterly basis to the Board of Directors.

To better prepare Lonza for the future, in 2020 the Lonza Pharma, Biotech & Nutrition (LPBN) segment initiated revamping of the global Quality Management System which has grown historically. The main objective of the system is to standardize and streamline our key processes and to boost digitalization. Customers will see the benefits as they experience more standardized and consistent interactions with different Lonza sites, which will all follow the same key processes. Effective use of data is at the center of this initiative: manual operations will be eliminated wherever possible, and systems will be linked so the duplication of data is avoided. This will significantly increase the overall performance of Lonza in terms of Quality Management.

To better tailor the Quality organization to the specific needs of the Specialty Ingredients (LSI) segment, the following strategic approaches and enhancements were made in 2020:

- Optimization of the organization to provide a better customer focus and direct links to the business, while providing a more inclusive environment for all team members;
- Expansion of the field-based audit team: this increases capability for internal and external audits, as well as augmenting the skill sets of LSI Quality team members;
- Direct links of KPIs to the business, which help drive improvement from a quality perspective, a customer perspective, and as a business;
- Development and integration of a strategic quality management system to enable business growth by providing a fully functional and compliant foundation system with the ability to append multiple certification options as the business requires.

2020 was a positive year for the LPBN segment in terms of batch success rate. The LSI segment also improved its batch success rate and customer complaint metrics, while driving down the overall cost of Quality across the enterprise. We will continue to improve on these metrics as well as develop new ones that better reflect our customers' and stakeholders' needs. We also strive to maintain high levels of performance, reliability and customer satisfaction.

In 2020, Lonza has further accelerated growth. To support this, hiring and training of new employees became even more important. We have established an effective and efficient training process consisting of structured educational sessions focused on the specific tasks employees will perform throughout the supply chain. These targeted training sessions allow new hires to become operational much faster, whilst ensuring they are properly qualified to execute against their accountabilities. In addition, LSI has created a functional Global Quality Competency Model to provide career roadmaps and critical knowledge requirements for employees to progress their careers in the LSI Quality team.

Audits and Regulatory Inspections

Our businesses are highly regulated, meaning that we are inspected by various Regulatory Authorities, Certification Bodies, and customers on a regular basis. Any findings during these inspections are addressed and used to support continuous improvement.

Due to the COVID-19 pandemic in 2020, it was difficult for customers and authorities to perform on-site inspections. We responded immediately, by putting in place all elements which allow customers and inspectors to inspect Lonza remotely. This also allows us to assure quality, compliance and ensure business continuity during this time of restricted movement.

2020 was positive in terms of regulatory inspections. Overall Lonza Pharma Biotech & Nutrition sites underwent 24 Regulatory inspections, and passed all of them successfully. Lonza Specialty Ingredients sites successfully passed 23 certification audits, 11 regulatory audits, and nine customer audits in 2020. In line with the increasing number of commercial and developmental productions in our expanding portfolio, the number of customer audits (on site plus remote audits) also continues to increase.

To ensure we are well prepared for future audits and inspections, we carefully and continuously monitor the quality and regulatory trends in the industry and undertake proactive initiatives where needed. Our internal quality audit program verifies that any such actions are consistently implemented at the relevant sites. Those internal audits are also an opportunity to identify and share best practices throughout the network, including newly acquired sites. Thanks to these proactive quality initiatives, we continue to build our reputation as a supplier of choice.

Proactive Quality Culture

Integrating quality through all areas of the organization by implementing a proactive culture focused on “right first time”, continual improvement, and increased productivity.

Regulatory/ Compliance Excellence

Adhering to regulatory expectations and identifying/ evaluating industry trends, as well as continually ensuring audit readiness.

Customer Satisfaction

Be a trusted and reliable partner for our customers and regulators, delivering safe and effective products and services in an excellent and efficient manner.

Effective Workforce

Building and efficient and capable workforce by attracting, engaging, and developing high-performing people and providing clear guidance that supports and motivates.

Customer Satisfaction

We are always eager to ensure that our customers get the best of the products and services we offer and achieve continual improvement and stability of supply. This means having a robust supply chain, operational capacity and efficiency, committed project managers and compliance with strict quality and regulatory standards. Customer engagement is carried out across all regions and businesses, and may include current and potential customers. Also, multiple learning sessions are arranged with our customers, to review projects that have been completed. Depending on the business, customer surveys are performed annually, or through customer feedback programs. These have included regional phone, in-person and online surveys, using different tools and platforms. Surveys comply with relevant privacy regulations and capture key metrics across customer satisfaction including quality, service, on-time delivery, lead times, communication, project governance, reliability and value delivery in the short and medium term.

For example, in July 2020 LPBN conducted an extensive customer satisfaction project to address the entire customer base in one survey. It was designed to provide a benchmark from which to monitor future performance. It also allowed a platform to constructively engage with our customers and address any immediate strengths and weaknesses in the CDMO-space.

We adopted the concept of a promoter score survey, with the opportunity to leave feedback, to allow us to keep the responses direct and quantifiable whilst allowing as many customers as possible to complete it. During the survey we reached out to more than 2,000 of our current customers across all functions ranging from project management to R&D, as well as procurement and legal.

We received some very detailed comments in areas where we perform well, as well as areas for improvement. Our survey results, when compared to industry benchmarks, tell us we are at the top end of performance for a CDMO with a strong positive score. There were positive endorsements about the quality of people, technical expertise and processes which were consistent across different customers groups.

In addition, there were four strong themes that emerged from the feedback. They apply to all pharma and biotech customers when seeking CDMOs to do business with:

- Our customers have a strong desire for constant communication;
- Our customers need empathy and to be understood;
- Our customers want suppliers who are easy to do business with;
- Our customers want to be given access to senior management when needed.

Corrective action plans have been put in place to improve our approach in these areas. We aim to implement this as an annual survey for LPBN, so we will be deploying it again in 2021. During this time we will focus on improving flexibility in customer solutions, as well as ensuring we respond to increased customer demand across all our services in a timely and responsive manner.

LPBN CDMO Customer Survey 2020

“Lonza offers a variety of services, is very customer focused/ seeks to create value, is technically very competent and has good quality systems in place.”

>2,000

Customers Surveyed

Global

Scope

75%

Response Rate



Environmental

We are committed to sustainable development in all its broad and diverse meanings. In part, this means striving to reduce use of natural resources such as water and energy, our carbon footprint and our waste intensity.

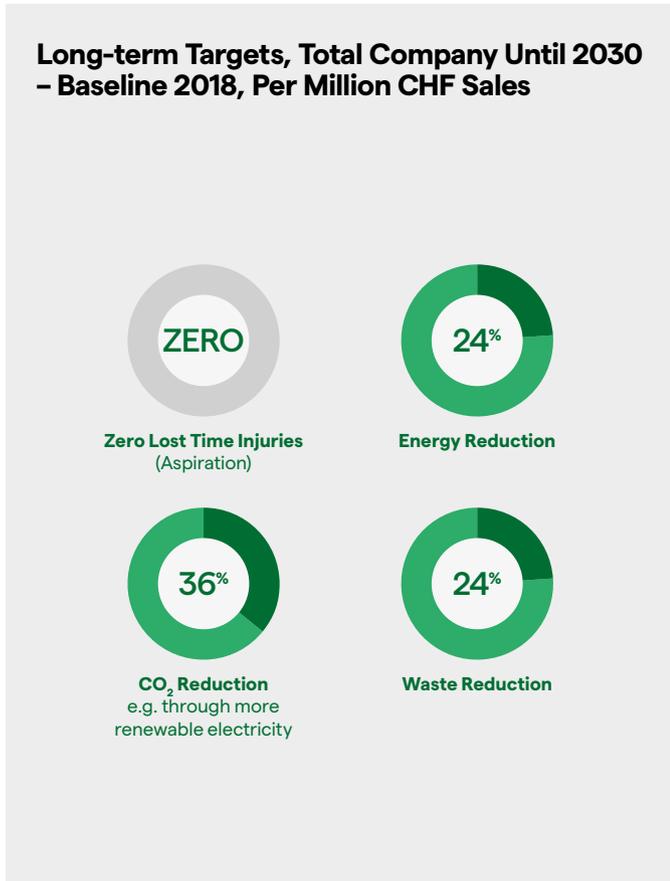
In Lonza’s operations, we engage and empower employees and teams to work towards the Vision Zero. It is our aspiration to reduce workplace injuries, manufacturing process incidents, emissions to air, water and soil beyond regulatory limits and transportation incidents to zero. To support this, in the workplace, we aim to protect our colleagues by identifying and eliminating potential hazards.

In 2018, we reviewed our strategy and policy and updated our environmental goals to reflect specifically the longer-term greenhouse gas (GHG) reduction requirement from the Paris Agreement. The Paris Agreement sets out a global climate action plan to limit global warming to well below 2°C.

With our energy and GHG targets (in the table below), we aim to reduce our CO₂-eq emissions intensity to below 50% by 2030 compared to 2010. Regarding waste, we are aiming for a 2% efficiency gain per annum. For water consumption, we aim to introduce local targets and projects in water-intensive or water-restricted sites.

Vision Zero remains unchanged as an aspiration to ensure the safety of our people and our factories. Programs are developed site-by-site and reflect the type and impact of the operations within multi-year roadmaps.

The targets are based on million CHF sales because of Lonza’s expected growth. It also reflects our diverse and evolving product portfolio, which ranges from manufacturing of chemical bulk products to pharmaceutical ingredients, from medical capsules to food supplements, from gene therapy to cell media production. Such a level of diversity can only be integrated with a denominator of financial value. Such a metric can be carried forward, even in the case of major acquisitions or divestitures. 2018 was chosen as the baseline for the targets in the coming years and excludes Water Care data, following its divestiture in early 2019. The targets and baseline will be reassessed with the divestment of the LSI segment.



Energy and resource efficiency within each site is the responsibility of site and operations management, reporting to the operations head of the segments. At a local level, operations, engineering and environment, health, safety and sustainability (EHS&S) departments are responsible for devising and developing three-year rolling safety and sustainability roadmaps. These are designed to drive our manufacturing sites towards compliance, efficiency and safety, and to help reach our overall sustainability targets. Local goals are added according to the materiality analysis in the sites, e.g. for water consumption and air impurities. Usually these departments develop improvement plans in EHS&S-councils on a site level.

Energy use and CO₂ emissions, effluents, waste, water and emissions data are reported quarterly to Corporate EHS&S. This vital information forms the basis for updated reduction goals and possible capital expenditure projects to achieve major improvements in energy efficiency and other areas. Other air emissions continue to be reported annually.

We have reported within the CDP framework (former Carbon Disclosure Project) since 2007. We also maintain reporting and data on two widely used web-hosted platforms to exchange sustainability profiles and emissions data between downstream customers and upstream suppliers (Ecovadis and Ecodesk).

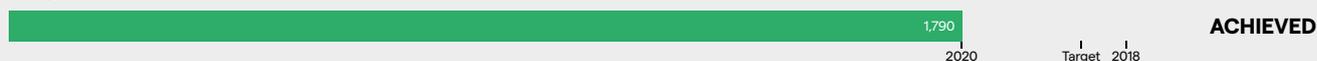
Our Progress in 2020

The progress on our environmental targets can be seen in the table below. We achieved the intensity target set for energy and carbon emissions; in addition our energy consumption and carbon emissions have also decreased in absolute terms, compared to the 2018 baseline. However, we could not achieve our waste intensity targets. A more detailed analysis can be found in the Waste chapter. All data shown in our environmental chapter are for the total Lonza, including LSI. The sales value used is 6,185 million CHF (Continuing Business and LSI).

For environmental and process safety incidents in our factories, we have reached a rate of 0.10 and 0.08 respectively, based on 200,000 hours worked. This means there has been a decrease in the rate and in the number of incidents compared to 2019. For accidents, we have established a target combining pre-accident and outcome metrics with the aim to manage the Lost Time Injury Frequency Rate (LTIFR), both linked to a bonus. In 2020, we reached a LTIFR of 0.62, based on 1,000,000 hours worked, maintaining a similar performance to 2019.

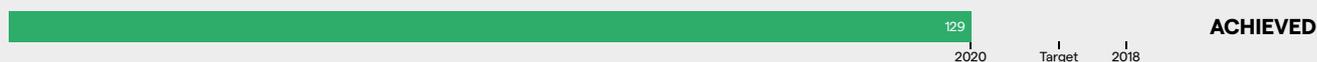
Our Progress in 2020

Energy (GJ/million CHF)



ACHIEVED

CO₂-eq (Scope 1 & 2 mt/million CHF)²



ACHIEVED

Waste (mt/million CHF)



NOT ACHIEVED

Indicator ¹	FY 2018	FY 2020	Change	2020 Target	Status
Energy (GJ/million CHF)	2,098	1,790	-14.7%	-4%	Achieved
CO ₂ -eq. (Scope 1 & 2 mt/million CHF) ²	150	129	-13.9%	-6%	Achieved
Waste (mt/million CHF)	27.1	27.9	+3%	-4%	Not Achieved

¹ The baseline has been restated due to the inclusion of three sites in the reporting framework (Monteggio, CH, Geleen, NL and Hayward, US), and the correction of previous data entry inaccuracies.

² The CO₂-eq rate and the reduction target is relative to the 2018 baseline, recording routine emissions from combustion and general sources, excluding the N₂O leakage (see Emissions chapter).

Energy

Energy consumed for manufacturing processes is one of the largest contributors to our climate-relevant emissions. We therefore concentrate efforts regarding greenhouse gas (GHG) emissions on energy-efficiency measures at our manufacturing sites and plan to increase the share of renewable electricity, and by doing that to de-couple electricity consumption and GHG emissions.

Our continuous improvement goals and processes encompass existing facilities, as well as capital projects and new facilities. Our capital expenditure approval process entails a sustainability assessment of larger projects.

Since 2018, we have been working with a partner to analyze the data for energy procurement, contracting and supply and demand patterns, to centralize the data for all sites into one platform. This has given us a better understanding of how and where to further improve energy efficiency and cost management. Some sites have adopted an energy management system aligned with the ISO 50000 framework, which encompasses an energy team, policy, target setting and a rolling action plan.

Energy Consumption within the Organization

Energy is a necessary input for our various manufacturing processes and is vital for utility generation such as steam, heating, cooling, ventilation, compressed air motors and pumps, as well as the air conditioning of buildings, refrigeration and transport. In Visp (CH) – our largest site – the major energy source is natural gas, followed by electricity and energy generated on site, mainly through incineration of gaseous by-products, solvents and waste streams.

Energy Intensity

In 2020, the energy intensity values decreased by 14.7%, which is above our 2020 target of 4%. This decrease in consumption is driven by two factors. Firstly, we are successfully transforming our product mix from chemical synthesis to biotechnological processes, using bacterial and mammalian systems. The related manufacturing processes are less energy intensive than chemical manufacturing. Secondly, we are investing heavily in modern energy-efficient buildings and production technologies. In addition, we have been acquiring companies whose products and manufacturing technologies are more energy efficient.

Energy Consumption Intensity 2020

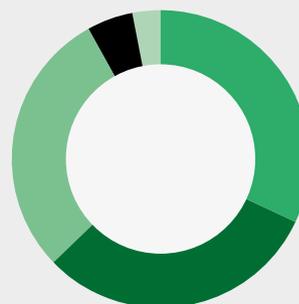
Total Energy Consumption/Revenue

1,790
GJ/million CHF

Lonza Energy Consumption 2020

TJ	
Total	11,070
Diesel	1.5
Fuel Oil	29
Gasoline	2.3
LPG	8.5
Natural Gas	3,739
Purchased Electricity Non-Renewable	3,330
Purchased Electricity Renewable	314
Renewable Electricity (On-Site)	5
Self-Generated Energy (Waste, Processes)	3,389
Steam	942
Energy sold	-692

Lonza Energy Consumption 2020



- Liquid Fossil Fuels
- Natural Gas
- Electricity
- On-site Generated Energy
- Steam
- Steam By-product

Lonza Energy Consumption Intensity

GJ/million CHF



- Energy Consumption
- 2030 Target



Water

Water is used for a variety of purposes across our business, including heat transfer and cooling, steam generation, washing, cleaning and maintenance, as a product ingredient and for sanitization. Although water is not listed as high priority within the materiality assessment, it is a precious, vital and burdened natural resource, of increasing importance and scarcity, which must be actively managed, especially in water-scarce locations. Access to clean, plentiful and portable water is an important factor to ensure the quality of our products. In regions where freshwater is scarce, we may be exposed to water shortages or restrictions, water price volatility, a decline in water quality and reputational issues. To mitigate these water-related risks, sites track their water balance and run water management programs to meet agreed reduction targets. Sites in water-stressed regions and geographies, (e.g. India and Mexico), incorporate measures to optimize water consumption and management into their sustainability roadmaps.

We are committed to reducing the amount of water used by our own operations. Each site is responsible for managing and optimizing its water balance. Water targets regarding quantity and wastewater are set at a site level. We measure and monitor both industrial water (which can be altered chemically and physically by the manufacturing processes) and non-contact cooling water (which is not altered, except for temperature).

As of 2018, sites have been required to report on the water source, water use and water output indicators, to better understand and manage this critical resource. We are also rolling out a water and wastewater management standard, to set minimum internal requirements for managing water supply, use, protection, and discharge, to meet regulatory compliance requirements and the company's commitments to safety and environmental sustainability.

Industrial Water Used in 2020

6,874
Thousand m³

Water Withdrawn by Source 2020

Thousand m ³	2020
Total Water Withdrawn	137,274
Water Source – Groundwater Wells	5,676
Water Source – Public supply	4,709
Water Source – Surface Water Bodies	126,889

Cooling Water Used in 2020

149,976
Thousand m³

Industrial Water Intensity 2020

Total Industrial Water Consumption/Revenue

1,111
m³/million CHF

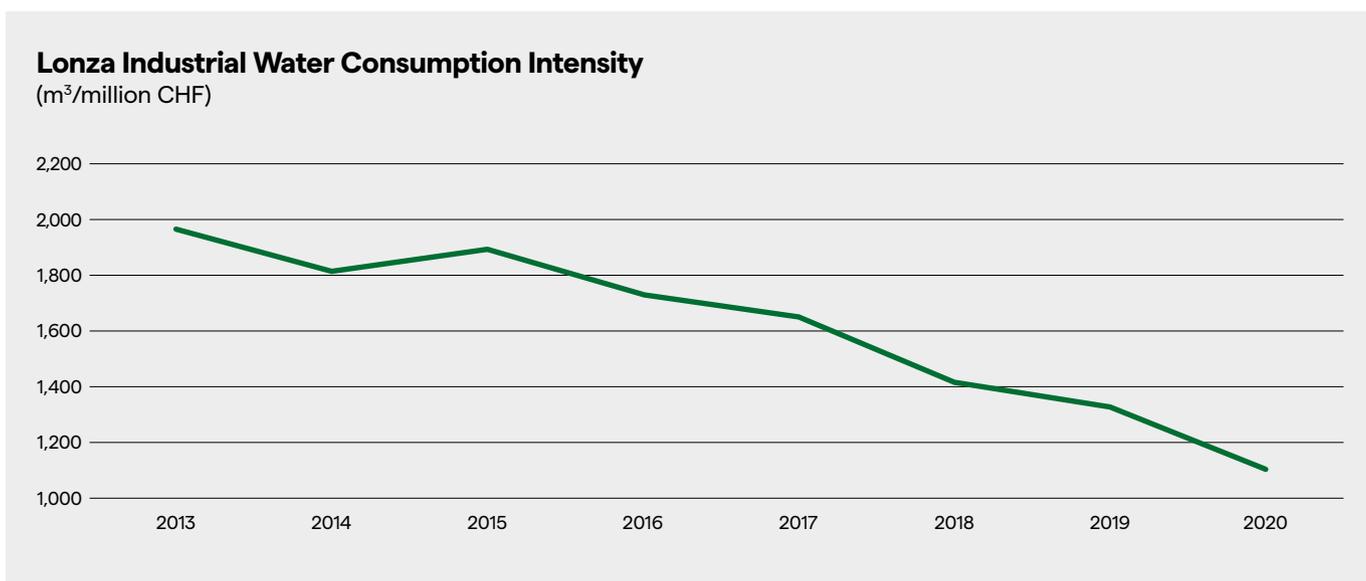


At our sites, water is handled as a precious raw material for products and processes. The Kourim (CZ) site has evaluated some of its processes and optimized water usage with simple but intelligent measures:

- The procedures for vessel and pipe cleaning were optimized, including reuse of the cleaning solution for vessels, reduction of cleaning steps after reevaluating the process
- Water for cooling of ozonators previously went to the drain. It is now being reused and in another line a closed cooling loop has been installed
- The water treated by reverse osmosis is in-line analyzed for ozone content and conductivity. Originally, this water went to the drain after being analyzed, though it may still be utilized. It is now collected to be used as standard reverse osmosis water

Our site in Haryana (IN) is located in a water scarce region and the local team continuously implements initiatives to optimize its water consumption. In 2020, the site invested in a reverse osmosis water plant to recycle reject water from the utilities and to use this recycled water in the cooling tower. This investment will reduce groundwater extraction by 30,000 liters per day and reduce the volume of wastewater going to treatment, with a return on investment expected to take three years.

The return on investment took less than three months. The drinking water savings are around 6,000 m³/year and reverse osmosis water is 12,600 m³/year.



Emissions

Based on scientific evidence, greenhouse gas (GHG) emissions contribute to global warming, largely caused by the combustion of fossil fuels to provide energy. This affects the climate globally and we must address it as a material issue.

Alongside GHG, other factors such as energy generation, waste incineration and industrial processes result in other emissions, such as particulate matter (PM), nitrogen oxides (NOx), sulfur dioxide (SO₂) and volatile organic compounds (VOC). Our goal is to continuously monitor, control and reduce such emissions, to comply with statutory requirements and to reduce them beyond regulatory requirements.

Our GHG-emissions result mainly from combustion processes for energy generation (including incineration processes of waste) and chemically generated GHG. With this in mind, we focus on managing energy consumption, energy sources and waste. To decouple GHG-emissions from energy consumption, we strive to increase the proportion of renewable electricity (wind, hydro, solar, etc.), which comprises our total energy consumption. Chemical processes and reactions generate GHG-emissions, (e.g. fugitive CO₂ or N₂O), which are tracked and reported by our sites. Accidental emissions or leakages are unintended releases and are reported when observed and quantified. In this context, leakage is not understood as a hole or crack in a container or a pipe (a leak), but defined as unintended or undetected release of a gaseous substance.

In the Niacin production facility of the Visp (CH) site, an unintended release of N₂O was detected by Lonza and quantified in 2018, and addressed as leakage in our 2019 Sustainability Report. For 2019, based on measurements and production volumes the emissions were 2149 tons N₂O (which corresponds to 666 thousand tons CO₂-eq) and for 2020 it was 1869 tons N₂O (approximately 579 thousand tons CO₂-eq).

The N₂O leakage was detected using different equipment in the periodic measurements for nitrogen oxides. The Visp site has taken the necessary steps to identify the causes of the unintended release of N₂O. An external company specialized in emission measurements has confirmed the nitrous oxide levels in the Niacin plant with two measurements in April and November 2018. The Federal Office for the Environment (FOEN) was informed and, in May 2019, the emissions were published in the Swiss Pollutant Release and Transfer Register according to the requirements of the FOEN. In parallel, and since no standard technology was available, the site engineering team developed a technical process to reduce the N₂O emissions, which consists of a selective catalytic process. In October 2019, agreement was reached with the FOEN to commission the technical catalyst solution prior to year-end 2021 as well as the submission of N₂O under the Swiss federal CO₂ legislation and the inclusion of the Niacin-plant into the Swiss emissions trading system.

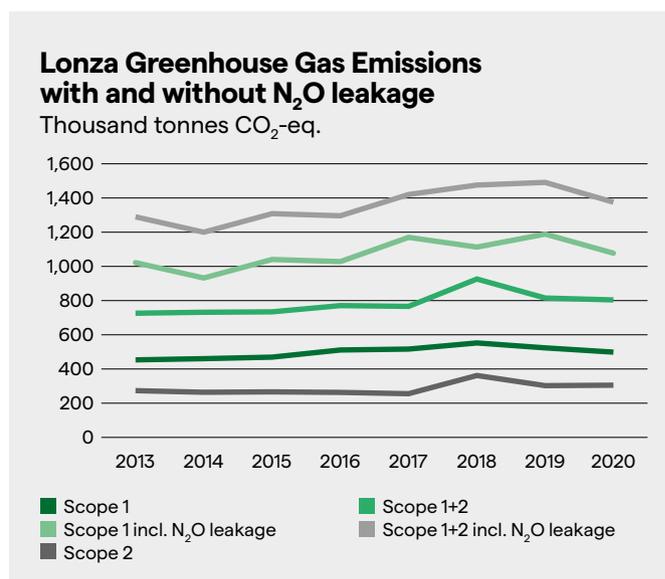
Approximately 18m high and with an area of 95 m², the installation is the size of an apartment building. Construction was started as soon as the building permit was granted by the authorities in January 2020. With this treatment plant, the N₂O emissions will be largely eliminated. Currently, it is anticipated that the treatment plant will commence operations before the end of 2021.

Since the N₂O leakage comes as an unintended and previously unidentified byproduct of the production process, we must assume it may have been occurring in previous years without a known start date. Therefore, we have restated all our values for direct GHG-emissions (Scope 1) for the reporting time window, based on the production amounts for those years. Indirect GHG emissions (Scope 2) values are not affected.

The chart below shows the direct and indirect GHG emissions (Scope 1 and Scope 2) with and without the N₂O-leakage. 2017 numbers exclude values for the second half of the year for Capsugel. The increase in the absolute values in 2018 therefore arises from the integration of Capsugel data. For 2019, the GHG-emissions from the Water Care business sites are no longer part of the reporting scope due to the divestment of this business.

In 2018, we defined a CO₂ intensity reduction goal. This was based on the aspirations set out in the agreement from the Conference of Parties COP21 in Paris (the Paris Agreement), to keep the increase in global average temperature to well below 2°C above pre-industrial levels.

Given the nature of the N₂O leakage emission and the measures undertaken to reduce it in the next two years, we will continue to track our 2019 to 2030 targets using the same baseline (2018) and the targets defined in 2018. In parallel, we will track the intensity of the emissions of the N₂O leakage. We will also continue to report our absolute carbon emissions (Scope 1 and total emissions) with and without the N₂O leakage until full elimination.



Direct (Scope 1) GHG-Emissions

Scope 1 includes direct GHG-emissions from sources owned or controlled by Lonza. Emission factors are used for calculating emissions from fuel combustion (CO₂, CH₄ and N₂O), including from company-owned vehicles. CO₂ and N₂O emissions from other on-site processes, such as chemical reactions or waste incineration are directly measured, calculated or estimated by the site. Waste and waste gas incineration serve two purposes: final waste treatment and energy production. Below we present the total Scope 1 emissions for Lonza including and excluding the N₂O-leakage.

Total Scope 1 Emissions 2020

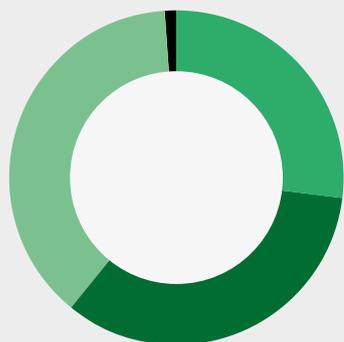
497

Thousand Metric Tons CO₂-eq.

1,077

Thousand Metric Tons CO₂-eq., including N₂O leakage

Lonza Scope 1 Emission Sources 2020



- Chemical Processes
- Waste Incineration
- Purchased CO₂
- Natural Gas
- Liquid Fossil Fuels

* excluding the N₂O leakage
 * waste incinerated on-site also includes thermally reused by-products and solvents

Energy Indirect (Scope 2) GHG-Emissions

Scope 2 includes GHG emissions from the generation of electricity and steam the company purchases, which are calculated based on regional specific standard emission factors using IPCC AR4 and U.S. EPA Climate Leaders. In most sites, the energy consumption is metered directly. However, in multi-occupant facilities, the consumption is adjusted to reflect by our proportionate consumption.

Scope 2 values are calculated using a location-based method (using mostly grid-average emission factor data) and a market-based method (reflecting emissions from electricity that our sites have purposely chosen, e.g. purchase of renewable power). For our targets, the location-based values are used, as our baseline was calculated with this method.

At our site in Porriño (ES) the consideration on renewable electricity began back in 2012, following a monographic session about sustainability, involving colleagues from Utilities and EHS. The site approached the power supply company to prioritize renewables sourcing over the established fossil fuel option. Progressively, the percentage of renewables in the site's purchased power increased, finally achieving 100% by 2017 through a combination of wind and hydropower.

Other Indirect (Scope 3) GHG emissions

We are currently quantifying the Scope 3 GHG-emissions of the Pharma, Biotech and Nutrition segment, after assessment of the various Scope 3 categories using 2019 data. Scope 3 includes GHG-emissions from purchased goods and services, fuel- and energy-related activities, business travel, upstream and downstream transportation, waste disposal, employee commuting, etc. These emissions will be added to Scope 1 and Scope 2 to form the total footprint of the LPBN segment.

First results from the 2019 data demonstrate that Scope 3 GHG-emissions are considerably higher than Scope 1 and 2 emissions, as generally observed in the industry. The Scope 3-GHG emissions are mainly attributable to purchased goods and services and capital expenditure. Waste disposal and fuel- and energy-related activities (not included in Scope 1 and 2) also contribute, though to a lesser extent. Business travel, employee commuting and downstream distribution have a minor contribution to the total Scope 3 emissions. Compared to the Scope 1 and Scope 2 GHG-emissions of LPBN operations, the 2019 Scope 3 GHG-emissions are around 3-4 times higher.

Lonza Scope 2 Emissions 2020

Thousand metric tons CO ₂ -eq.	Location-based	Market-based
Total Scope 2 Emissions	301	251
Steam	42	42
Electricity	258	208

Sustainability Report 2020

The underlying approximations rely on average industry data, and have high levels of uncertainty, therefore we will focus our quantification efforts on the categories with the likely highest contribution.

GHG Emissions Intensity

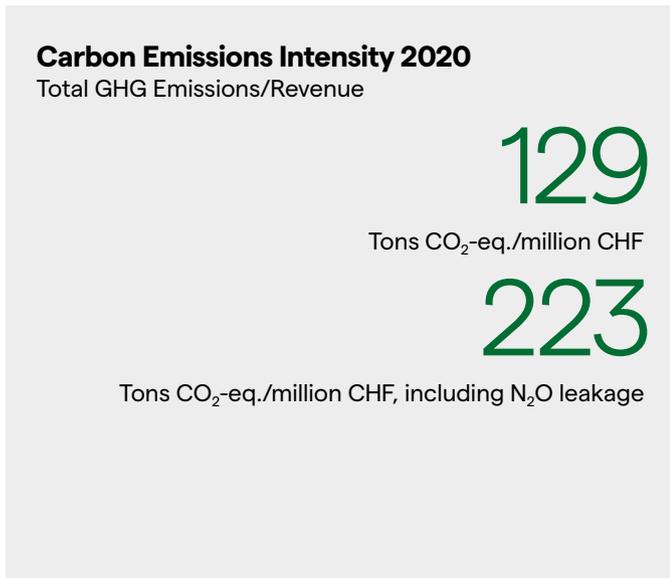
The carbon emission intensity values from routine processes decreased by 14% in 2020, exceeding the 6% reduction set in our long-term goal (excluding the N₂O leakage).

We are taking into account the point source of the N₂O emissions in the Niacin plant in Visp (CH), and the measures being taken to reduce it in late 2021 with the installation of an catalytical exhaust gas treatment process. In this context, we will continue to track our 2019-2030 targets using the same baseline (2018) and targets as defined in 2018.

Nitrogen Oxides (NOx), Sulfur Oxides (SOx), and Other Significant Air Emissions

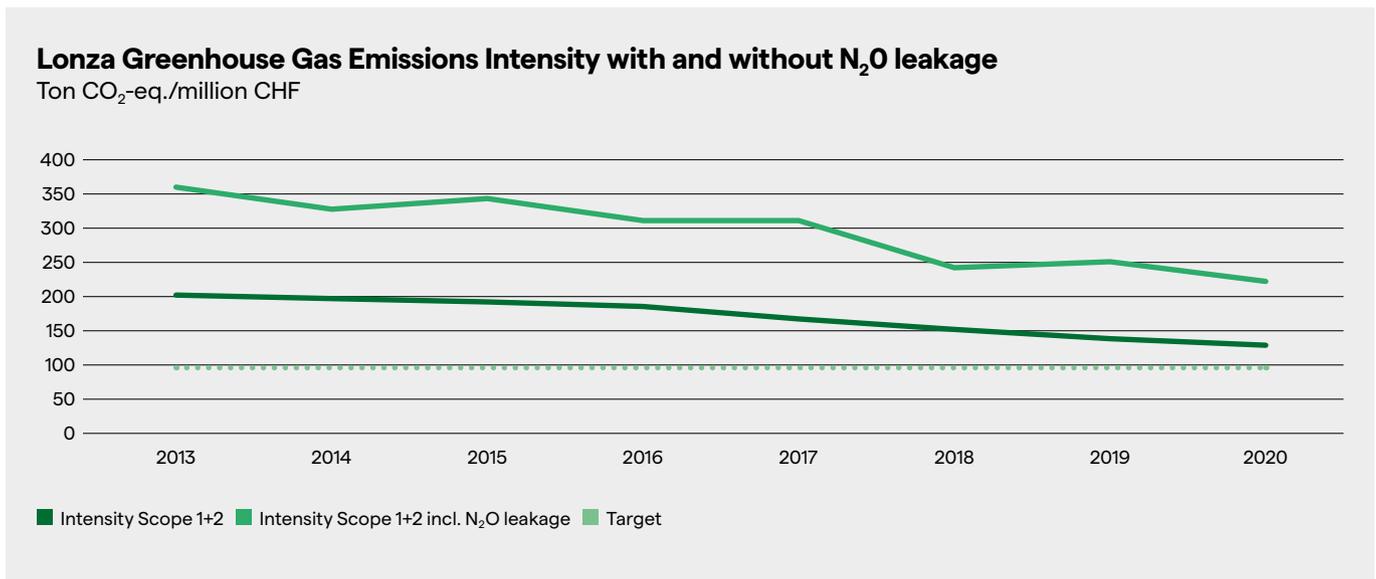
Even though in the materiality assessment only GHG-emissions were identified as the priority, other emissions such as VOC and NOx are also important to our operations and monitored for compliance with local regulations.

Continuous investment, technical improvements at emission points and emission control equipment contribute to the reductions we have observed over a period of years, around 10% reduction year-on-year. From 2019 onwards, we have included air impurities into the site roadmaps, where this parameter is material.



Lonza Total Air Impurities 2020

Tons	
Total Air Impurities	537
VOC	208
NOx	251
SO ₂	4
Particulate Matter	73



Waste

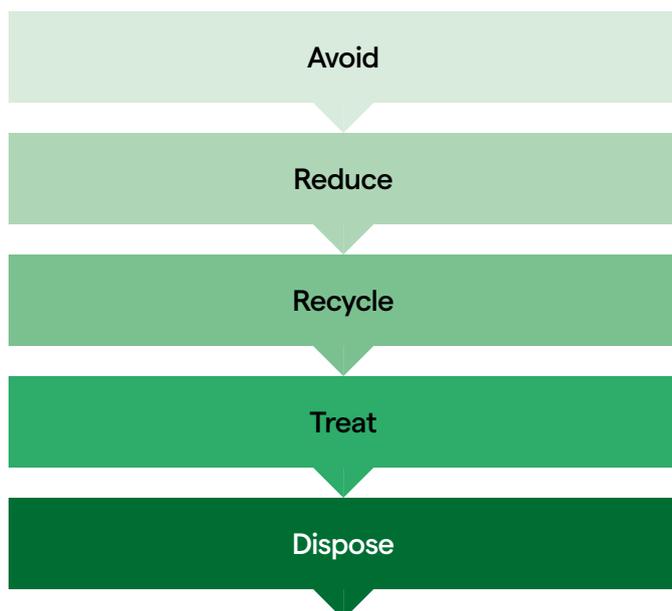
As a primarily pharma and biotech company with chemical production facilities, we strive to remain transparent with stakeholders and local communities about how we manage waste and wastewater. Communities have a vested interest in how we manage waste and water discharge from production, as they may be directly impacted through potential water contamination and improper disposal of waste.

Each manufacturing site maintains a waste disposal operation tailored to relevant waste streams for the efficient, environmentally sound treatment and disposal of waste outputs. All sites are committed to our waste reduction principles.

At certain locations, such as Visp (CH), we operate our own waste and wastewater treatment. In other locations, we carefully select our partners for waste transportation and treatment based on performance and capabilities in Environment, Health, Safety and Sustainability (EHS&S).

We work to reduce waste resulting from manufacturing facilities, offices and laboratories, and to ensure that the treatment and disposal of all waste materials (including wastewater) is conducted in full conformance to local regulations and international standards. The waste management system and performance at our manufacturing sites is subject to regular inspections and audits.

We are committed to increasing input materials efficiency in our production processes, including reworking out-of-specification production whenever possible. We strive to reduce effluents by controlling and reducing water inputs. Effluents are managed according to their quantities and parameters as permitted by the local authorities



Typically cattle and pigs are harvested for meat, skins, and leather - not for their bones. Lonza's Capsules & Health Ingredients division processes extracted collagen from the unused part of the bones and skins for base gelatin raw material. Nearly 100% of the gelatin byproduct generated in our internal capsule manufacturing process is recycled for future capsule uses. Any gelatin that cannot be recycled directly into our own process is sold to third party companies, which use this remaining gelatin byproduct for products such as paintballs, matches, pet food, book binders and other applications. From end-to-end, every part of our role in animal-based capsule manufacturing is a sustainable use of natural resources. Furthermore, the factory that makes the capsule production machines is powered by an on-site solar panel field, and is committed to achieve zero-waste-to-landfill status.



Cleaning-in-place (CIP) is a method of cleaning the interior surfaces of pipes, vessels, equipment, filters and associated fittings, without major disassembly. In Porriño (ES), the water and chemicals from CIP operations are sent to the site's wastewater treatment plant. In 2018, we identified that the plant was getting overloaded. The site initiated a project focused on reviewing and modifying CIP cycles to increase efficiency during cleaning operations. The aim is to reduce water, time and chemicals consumption, in order to minimize the environmental impact of the operations and to decrease the volume of wastewater. The project was commenced in 2018 and was finished in 2020. The savings presented a payback within six months. The average daily water consumption of all operations in the site decreased by around 22%, and systems have the option for chemical-free cleaning, with chemical rinses reserved only for specific cases. In some cases, there was a 30% decrease in chemicals consumption. The site's wastewater treatment has spare capacity and the CIP's quality operation remains high.

Remediating Legacy Issues

Mercury remediation

Our largest site in Visp (CH) continues to address legacy mercury contamination along a former wastewater discharge canal, on surrounding soils and other areas where contaminated sediments were deposited. This issue dates back to when Lonza used large amounts of mercury as a catalyst in chemical processes. The site discharged industrial mercury-contaminated wastewater into the canal between the 1930s and 1970s, before the construction of the wastewater treatment plant.

Since 2013, we have worked closely with local communities to finance and implement the required technical investigations in residential areas and agricultural zones between Brig-Glis and Niedergesteln (CH). By the end of 2020, 122 pieces of land in Visp and Raron (CH) were remediated, representing more than 75% of the residential plots affected. The work will continue in 2021, with remediation commencing on the contaminated agricultural areas.

We are working closely with the Swiss Canton of Valais, the municipalities and other relevant parties to resolve the mercury-related industrial heritage. We maintain a [public website](#) (in German) on remediation activities and progress.

Old Gamsenried Landfill

The Gamsenried disposal site in Gamsen (CH) is owned and managed by Lonza and consists of an old and decommissioned area, alongside a new and fully permitted disposal site. This is used for waste incineration slag from the Visp site and the regional waste incineration plant. The older, decommissioned section was primarily used between 1918 and 1978 for contaminated lime hydrate and gypsum sludge. It is currently being analyzed in detail for traces of mercury and organic contaminants. In this area, the management approach includes groundwater monitoring, and pump and treatment of contaminated groundwater at the edge of the landfill. Additionally, a second campaign of air measurements was performed in 2020 in collaboration with the University of Braunschweig (Germany). These measurements showed that mercury levels in the air are within acceptable legal air concentration limits.

The Port Shepstone (ZA) site strives to optimize its water consumption. Although the site is not in a water scarce area, the municipality has faced some issues due to the high salt content, which led to rationing the supply of water to this area. The site does not generate effluent water, since all wash water from the laboratory and factory is reused as process water. All contaminated water from production is redirected back into the manufacturing process, with no need for treatment. This saves around 510,000 liters per year.

Water Discharge by Quality and Destination

At many of our sites, industrial water is collected in tanks or reservoirs and treated in our own or external wastewater treatment facilities. It is tested according to local permits before discharge into the sewage system or into a surface water body. Our local businesses hold permits for water treatment and for the relevant wastewater discharge parameters, such as quantity and chemical limit values. However, due to the diverse nature of requirements, we do not report on discharge water quality. The following water emission parameters are tracked in sites where such emissions are material: heavy metals, nitrogen, organics (COD and TOC) and phosphorus. Other parameters are tracked in line with local regulation and the type of operation.

Waste by Type and Disposal Method

In line with our corporate reporting guideline, construction, demolition, remediation and excavation waste are excluded from the sustainability reporting framework. Only production-related waste is tracked at a corporate level. Solvents, which are used as fuels within our sites, are reported as waste for fuel, although they allow us to reduce natural gas consumption considerably.

In 2018, we defined a long-term global waste intensity reduction target of 24% by 2030. This requires an ongoing waste reduction program with cumulative savings of approximately 2% per year. We could not achieve the reduction target we set ourselves for 2020.

Our sites and businesses will be focusing on waste intensity reductions in their site plans and roadmaps, also supported by new guidance on waste management and minimization.

As we move into being a pure-play pharma, biotech and nutrition supplier, we are well aware of the challenges related to waste generation in this business. The goal is to decrease the footprint of our activities while meeting all high quality and hygiene requirements.

The use of Single Use Technology and cleaning practices is expected to increase our waste. A significant portion of the increase in waste is due to the cleaning in the API (active pharma ingredients) production, generating large amounts of liquid waste which heads to incineration, to avoid contamination of water streams.

Additionally, in one of our LSI sites in China, a new sewage treatment system was installed to ensure the wastewater would not contain dissolved substances. This guaranteed the quality of the wastewater but the precipitate brings a considerable increase in the waste streams.

Lonza Water Discharge 2020

Thousand m ³	
Total Water Discharged	156,800
Water Discharged to Sewer	6,686
Water to Water Bodies	150,115

The majority of our waste is generated in our largest site in Visp (CH), which mostly contributed to the increase in waste intensity. This increase was due to several factors, including the following:

- Changes in the product portfolio, including more waste intensive products and production processes
- The wastewater treatment plant was at full capacity and therefore some inbound liquid streams had to be incinerated.
- The need to discard production batches due to quality issues
- Additional cleaning liquids to achieve required product quality had to be incinerated.

The site is working on a number of waste reduction measures. A large proportion of the waste volumes are solvents and hydrocarbon byproducts which are used to produce steam and electricity, saving considerable amounts of natural gas.

In Visp (CH) and also in Nansha (CN), the energy generated from incinerating waste solvents and by-products, and waste was 2,119 TJ, and from recovering waste heat in 2020 was 1,110 TJ. These replace the consumption of 92 million m3 of natural gas. Waste that is sent to landfill is mainly incinerator ashes,

which are deposited in our own licensed landfill site, close to our Visp (CH) site. We continuously strive to increase the recycling of used solvents.

The waste intensity has varied over the past decade, mainly because construction waste was not separated from production waste before 2015. Construction and excavation activities contributed to the peaks observed in recent years. After the refinement of the waste reporting guidelines, as of 2018 we report numbers for production-related waste streams.

The production process of an intermediate in Visp (CH) generates an aqueous waste which contains organic compounds. This waste has insufficient biodegradability and therefore needs to be incinerated. In 2020, a distillation step was added to the process. Organic compounds could be successfully reduced in the stream, and thus the effluent can now be treated regularly in the wastewater treatment plant. By adding this step, it became possible to reduce the incineration waste by 80%, which corresponded to 400 tons in 2020.

Lonza Waste Disposal by Destination⁴ 2020

Tons	
Total	172,761
Waste - Hazardous - Incinerated	82,028
Waste - Hazardous - Landfilled	6,274
Waste - Hazardous - Recycled	7,458
Waste - Hazardous - Treated	253
Waste - Non Hazardous - Incinerated	56,508
Waste - Non Hazardous - Landfilled	13,709
Waste - Non Hazardous - Recycled	6,531

⁴ Waste is defined as hazardous or non-hazardous by local legal definition.

Waste Intensity 2020

Total Waste/Revenue

27.9

Ton/million CHF

Lonza Waste Intensity

Ton/million CHF



Environmental Compliance

We are committed to regulatory compliance and ethical behavior in all areas of our operations. Environmental compliance is a material topic for all our sites and businesses, across all regions, and includes our supply chain and products.

Accountability for environmental compliance rests with the sites and the businesses. Lonza sites employ a management system approach. This includes regular information updates on legal changes and a compliance assurance mechanism with internal and external controls. Various sites have implemented a certified ISO 14001 system, which includes oversight of regulatory requirements. Additionally, in 2019 we received assurance by a Swiss certification body that Lonza's Corporate EHS&S management system was in accordance with ISO 14001 and ISO 45001 standard requirements.

Regular internal audits of different functions (internal audit, EHS audit, loss prevention visits, quality audit, authority inspections etc.) provide both oversight and governance. EHS&S audits are performed in a three-year cycle, in which reports with findings are distributed to the senior management and agreed action items are followed up to closure.

In management reviews with their teams, site managers verify compliance and results from regulatory inspections. Negative findings of this review are reported to our Ethics and Compliance Group. Fines, which are an indication of non-compliance, are reported into the environmental data system and are reviewed to identify the root causes.

We maintain the Lonza Ethics Hotline, which allows every employee to raise concerns about non-compliance with internal and external rules, and also specifically with environmental concerns. All notifications are taken seriously and assessed with due care and attention.

Most of our subsidiaries work with external advisors or industry associations to stay informed about regulatory changes. The compliance assurance process relies on the evaluation and implementation of legal changes through management teams of the sites. Once implemented, audits allow us to regularly review, assess and maintain compliance.

We did not incur significant fines in 2020 for non-compliance with environmental laws and regulations.

Innovating for Sustainability

We are committed to creating value for society by delivering innovative, science-based solutions for our customers in the healthcare and other industries. For an overview of our most important innovation activities, please refer to the innovation highlights for LSI and LPBN in the [Our Businesses](#) section of the Annual Report.

Lonza Pharma, Biotech & Nutrition is largely a business-to-business contract manufacturing segment. In this context, staying up-to-date with production technology and streamlining manufacturing processes is the route to efficiency. Navigating the increasingly tight regulatory environment is a key task and innovation driver in Microbial Control Solutions, our biggest business division in LSI.

Innovation is also important in our processes. For example, in 2020 the LSI business patented a copper free coupling reaction. Copper(I) salts are commonly used as catalysts and reactants in a variety of organic chemical reactions. However, they also exhibit biocidal activity and can be very toxic to aquatic life. If used in a chemical process, the effluent requires special treatment to remove the copper before discharge in a wastewater treatment plant. We developed a new copper free coupling reaction, which achieves both higher yields and selectivity by minimizing formation of side products ascribed to competing side reactions triggered by copper ions. The process can also be used for similar coupling reactions with different starting materials and does not require any special equipment. This new process has already brought savings of around CHF 1.6 per kg in waste treatment costs.

Fluorine substituents have a determining influence in the biological activity of active ingredients in terms of biological availability, as well as inherent docking properties in enzymes. These properties are crucial in the development of many new active ingredients and active pharma ingredients containing fluorine substituents. However, the industrial manufacturing of these products poses many hurdles connected to the introduction of the fluorine containing substituent. One important class of these products contains fluoroalkyl groups, the introduction of which has been the subject of intense academic research. However, none are applicable to industrial processes as some of the required reagents would generate significantly more waste and increase costs. In collaboration with LIKAT (Leibniz Institute of Catalysis), we have developed four catalytic protocols which solved many of the industrial problems of fluoroalkylation reactions. In many cases, the waste amounts can be reduced by more than 90%. In addition, fluoroalkyl groups can be introduced to advanced intermediates, avoiding the need to use fluorinated intermediates at the beginning of the chemical route. As an added advantage, the catalysts can be reused several times before losing their activity.



NUGEN® EHP is a new enhanced hydrogen peroxide disinfectant formula made with the EPA (United States Environmental Protection Agency) Design for the Environment listed active and inert ingredients. The NUGEN® EHP offers a more environmentally sustainable disinfection for consumers and cleaning professionals without compromising core cleaning performance. It has a broad microbial efficacy and good cleaning performance. Also, it requires no personal protective equipment for use.



Lonza has been at the forefront of introducing Hypromellose (HPMC) plant-based capsules to the food supplements and pharmaceutical market, taking into consideration responsible sourcing of raw materials. Our HPMC capsules are made from sustainably cultivated pine trees, under the FSC certificate. Our Vcaps® Plus White Opal™ capsules were recently introduced as an alternative to the traditional white titanium dioxide colored capsules, which are being reviewed and reconsidered in some European food and food supplement markets. Our capsules were designed to meet the imperatives of responsible product design, using the Vcaps® Plus platform and a selected grade of calcium carbonate without the addition of any further opacifier. Our customers now have access to a unique, sustainable, plant-based alternative without gelling agents, preservatives, or plasticizers, and containing only HPMC, water and calcium carbonate.



Global regulations require parenteral drugs to be free from pyrogenic substances that may cause life-threatening fever reactions in patients. Traditional pyrogen tests rely on the animal-based rabbit pyrogen test (RPT) for detecting pyrogenicity and the limulus amoebocyte lysate (LAL) test that identifies the most potent pyrogen, bacterial endotoxin. However, modern drug formulations and global targets for reduction of experimental animals are limiting the suitability of these traditional test methods. After pioneering a synthetic alternative to the LAL test, the Pyrogene® Recombinant Factor C Assay, Lonza continued its commitment to sustainable solutions by partnering with Sanquin Reagents B.V. to add the PyroCell® Monocyte Activation Test (MAT) to Lonza's Complete Testing Solutions portfolio. The Monocyte Activation Test (MAT) has been adopted by the European Pharmacopeia as an in vitro replacement for the RPT. With the addition of the MAT test, Lonza becomes the only company offering all of the traditional and sustainable pyrogen and endotoxin tests recognized by global pharmacopeia.

Social

Our people are the cornerstone of our business, and we offer many opportunities for our employees to improve their skills, build on their experience and grow their careers. We provide them with safe workplaces, care for their well-being and encourage their involvement in creating a positive working environment. We aspire to be a good corporate citizen by supporting projects for education, environment and health. We engage in a wide range of initiatives to deliver benefits to our many stakeholders, including the communities in which our employees and their families reside.

By cultivating relationships and contributing our knowledge, expertise, and support, we create sustainable value for our communities around the world.

Investing in Communities

Our sponsoring approach

In many of the communities where we operate, we act as a neighbor, a vital source of jobs, a charitable sponsor of local civic, cultural, health and educational projects and a significant contributor to local economies. While our financial donations are important, our employees also play a critical role by volunteering in relevant programs and projects.

We aspire to be a reliable, long-term, active sponsorship partner and to engage at the earliest stage of community projects. Accordingly, we focus our resources on a small number of carefully selected projects where our engagement can make a significant difference. Our sponsoring and donation activities focus on the following four priority giving areas: Health and Science, Education, Humanitarian Aid and Environment.

Health and Science

Supporting the Lonza Arena (Switzerland)

We are the headline supporter of the new ice and sports center in Visp, named the Lonza Arena. The new sports center is the home of the [EHC Visp](#) (a Swiss professional ice-hockey team) and has capacity to hold 5,000 spectators.



Health and Science

Continuing the successful “Lonza Makes You Fit” program (Switzerland)

In cooperation with the organizers of the [Gornergrat Zermatt Marathon](#), “Lonza Makes You Fit” was a project initiated in Visp and Basel in 2016, and remains a focal point of our community investment. The goal is to make our employees fit for the Gornergrat Zermatt Half-Marathon. We have developed a comprehensive training program that prepares participants to complete the most beautiful mountain race in the world. In 2020, the race had to be cancelled due to the COVID-19 pandemic, and was instead converted into a virtual run via a race app.

With many of us working from home in order to protect ourselves from the coronavirus, group activities and trainings were turned into online programs. Major challenges included new daily structures, a new workplace, time management, family members at home, childcare and a lack of personal contact with team colleagues and friends. To support our Lonza employees to manage their new situation, our local team in Visp launched the program “Together through Corona”. This included video classes on various topics including ergonomic behavior, home workouts, home office nutrition and personal health.

Education

Promoting youth in science (Switzerland)

In 2020, we continued our five-year partnership with Swiss Youth in Science (Schweizer Jugend forscht). Established in 1967, the foundation supports motivated children and young people to find inspiration in science.

The foundation's courses encourage children and young people to become more immersed in subjects such as mathematics, computer science, natural sciences and technology. They can also explore options for their future studies or professional careers. Through our engagement, we help to promote scientific subjects and develop the next generation of scientists.



Education

Committing to support school for underprivileged children (India)

Since 2015, we have maintained a relationship with the Marathi Medium School Vidya Vikas Mandal for underprivileged children in Mumbai (IN). Established in 1957, the school is currently home to around 600 students and provides primary and secondary school education facilities. We have supported the school by constructing and renovating school buildings and by setting up e-learning facilities, alongside computer and science laboratories. Our support has made a positive change to the students' lives and has enabled the school's management to work towards their mission of improving education for their students.

In 2020, we helped renovate a child care and elderly support center in Haryana, India that will provide food, education and other services to people in need. The newly renovated center was inaugurated in August 2020.

The center provides accommodation, food, education and other services to the deprived sections of the society for both children and elderly people. Through this corporate social responsibility project, Lonza India has demonstrated its commitment towards community building, even during the COVID-19 pandemic which has impacted India severely.

Education

Bringing classical music closer to children and young people (Switzerland)

For the last six years, we have partnered with the Basel Chamber Orchestra to support the "Classroom Piece" project. Delivered with the assistance of four of the orchestra's musicians, the project aims to give children and young people the necessary support to develop their musical abilities, independent of social and cultural backgrounds. We are proud to support this novel project with the goal of bringing classical music closer to the local community.

Education

Supporting a social think tank (Switzerland)

For many years, we have been a partner of Avenir Suisse, an independent think tank that focuses on the future of social development, in the context of politics and economics. Founded in 1999, the organization works to encourage political action to help solve problems with initiatives, plans and proposals. To deliver on this objective, it develops social analytics projects, organizes conferences and participates in public debates.

Humanitarian Aid

Supporting local non-profits in Portsmouth (USA)

Due to the pandemic and related safety concerns, Lonza Portsmouth supported the local community through various virtual events. The Giving Tree event allowed employees to make donations through a virtual platform to a variety of local non-profits who were struggling during the pandemic. The campaign raised \$6,500 from employees, and Lonza Portsmouth matched an additional \$3,000. The site also supports the Seacoast Community Baby Shower organized by United Way since its inception in 2014, making a considerable contribution each year to support new parents to give their babies the best possible start in life. Due to the pandemic, the Community Baby Shower became a virtual event and helped to support 346 local families in the Portsmouth area.



Humanitarian Aid
Supporting the NGO Hand in Hand India to Help Combat COVID-19

During the early outbreak of the COVID-19 pandemic in 2020, we entered into a partnership with the NGO Hand in Hand India, to help fight the spread of the virus in India by facilitating hygiene education, delivery of sanitizers, and handwashing advocacy to 500,000 people of 125,000 households in rural and underprivileged communities. Hand in Hand India is an international NGO and part of the [Hand in Hand Switzerland Association](#), working on empowering women, educating children, ensuring access to healthcare, combating climate change and creating jobs.

Together with Hand in Hand India, we were able to improve the local COVID-19 situation through various measures including door-to-door campaigns to supply disinfectants, health and hygiene advocacy interventions, training on how to prepare hand sanitizer as well as psychological support during these difficult times.

As a result of the project, the local Hand in Hand India team has initiated the production of hand sanitizers for distribution to 200,000 rural households along with soaps and personal protective equipment for 1,200 sanitary workers. In addition, 50 spray pumps for public places were purchased and distributed to local administrative bodies to ensure that public places were disinfected regularly to prevent the spread of the virus. In addition, a dedicated and proactive healthcare hotline was launched to answer any COVID-19 related questions, provide psycho-social care and support for those suffering the most as a result of the pandemic.

Humanitarian Aid
Supporting the fight against cancer (Switzerland)

In 2020, we actively supported various projects and organizations in their fight against cancer in Switzerland. Lonza AG presented a donation to the Swiss Cancer Foundation while the Lonza Drug Product Services (DPS) team presented a donation to Krebskranke Kinder Beider Basel, which had been raised by employees over the course of the year. We are proud to be partnering with organizations that can raise awareness and make a difference to the lives of cancer patients and their families.



Environment
Volunteer trail workday (USA)

At Lonza Portsmouth (USA), some of our employees had the opportunity to use their community service day to volunteer for the Southeast Land Trust of New Hampshire. This is a local non-profit organization conserving and stewarding land in southeastern New Hampshire for the benefit of people and nature. As part of the project, the Lonza team helped to build a new multi-use hiking trail for the North Mraz loop, which is a popular outdoor trail in the region.

Environment
Supporting local wildlife conservation (USA)

Lonza Greenwood (USA) has been certified by the [South Carolina Wildlife Federation \(SCWF\)](#) for the W.A.I.T. (Wildlife and Industry Together) program. The SCWF advocates for the preservation and recreation of wildlife habitats across South Carolina. The W.A.I.T. program is designed to encourage corporate landowners to integrate wildlife habitat needs into corporate land management decisions. The outcome is enhanced environmental awareness, a positive environmental impact and an improved working environment for colleagues.

As part of the program, Lonza Greenwood has dedicated a plot of land to the creation of a "Carolina Fence Garden". This garden serves as a habitat for the Carolina Wren and the South Carolina official state butterfly, the Eastern Tiger Swallowtail. It also integrates several cultural symbols of South Carolina such as the State flower, the Yellow Jessamine, materials including the South Carolina Blue Granite, and a split rail fence, similar to those used by South Carolina farmers in the late Nineteenth Century. In addition, Lonza Greenwood established a partnership with the Horticulture Team at Piedmont Technical College to promote community involvement and to incorporate the garden into the horticulture curriculum for plant identification.

Occupational Health and Safety

High standards in occupational Health and Safety are the basis for how we do our work to mitigate impacts on our workers, our customers and other stakeholders present on our sites. Therefore we continue our "Vision Zero" initiative, a program which has led to a considerable reduction in safety incidents. Ultimately we are striving for zero workplace injuries, process incidents, environmental incidents and transportation incidents. We are measuring and have set targets for safety corrective actions (safety CAPA), which drives identification and closure of safety gaps at each of our operating sites. This has moved the focus from a lagging injury-based metric, to a leading indicator driving employee behavior and involvement. This initiative resulted in more than 34,000 documented safety improvements in 2020, largely identified and corrected by our shop floor workforce. In 2020 we experienced a Lost Time Incident Frequency Rate of 0.62 (1 Mio. workhours), and a Recordable Incident Rate of 0.48 (200,000 workhours). These data refer to all Lonza sites, including LSI.

Labor practices and safe working conditions are the responsibility of site management, reporting to the Global Head of Operations for each segment. Site operations and EHS managers are both accountable for the occupational safety process, as well as for setting and helping to achieve local targets. Ultimately, every employee contributes by identifying risks, observing colleagues' safe behaviors and working safely at all times. Safety is a condition of employment.

While the EHS&S policy defines high level principles, our corporate EHS&S management system and our detailed guidelines support their implementation. The Process Safety team – part of the Corporate EHS&S group – is working closely with the sites on the implementation of rules and standards for safe processes. Some sites are certified according to the occupational safety standard ISO-45000 or Responsible Care. In 2019, we modified our management system to be fully aligned to ISO 45000 requirements.

EHS&S standards include:

- Guidelines including Health Surveillance, Critical Work, EHS&S Management System and policies on incident tracking and reporting;
- Operations policies establishing minimum standards to ensure the safety of personnel in a variety of activities;
- Site Security and Business Continuity Planning;
- Construction Site Policy, which includes contractor requirements.

In 2020 the state of Louisiana (USA) was severely hit by hurricanes Laura and Delta and our Lake Charles site was impacted. Our priority was to ensure our employees' safety and safeguard the infrastructure of the site. Employees were provided with generators, tools and other supplies, as needed, for their personal use. A cash stipend was provided to support additional individual needs. Water was purchased and distributed for the site and employees' personal needs, and the remainder was donated to the local community.



Disaster response procedures are very important to keep our sites, employees and their community safe in case of unexpected events.

A good example of such collaboration with local authorities was the major emergency drill carried out at the Kouřim (CZ) LSI site. This drill involved 120 employees, nine fire trucks and more than 40 firefighters, together with police and medical services. The drill not only proved that the site is prepared, and that its disaster response processes and procedures work effectively, it also showed that employees are properly trained and know how to react should an accident occur.

This exercise took several months to plan. Lonza collaborated with the Kolin authorities to create a realistic scenario and make sure all necessary resources were in place. As there is no fire brigade on site, Kouřim has established close links with the Kolin Integrated Emergency Services over the past few years. It continues to make regular donations to the fire brigade in particular, to make sure it has the equipment and resources to tackle a major industrial incident if needed.

We regularly audit sites and locations – on average every three years – to ensure compliance with rules and regulations, technical integrity and effective management systems.

We actively monitor our performance regarding occupational health and safety. A monthly analysis report is distributed to all our employees. These reports and the subsequent activities are carefully tracked and measured, and global and local management adapt approaches accordingly. In 2020, we had 18 environmental incidents, compared to 23 in 2019, largely through minor wastewater permit exceedances, and our rate decreased to 0.10. Our rate of process safety incidents (number of events, fines and penalties) with 15 incidents was 0.08, similar to 2018, and improved compared to 2019. Most of these incidents were related to contained spills.

Management System

We maintain an EHS&S Management System which has been adapted to meet ISO 14001 and 45001 standards, while providing detailed guidelines for people safety. This program applies to all locations and all employees.



In 2020 our site in Jakarta (ID) was recognized by the Indonesian government for its successful occupational health and management system (OHS). The Indonesian OHS system (SMK3) has been implemented on our site at an advanced level, and in 2020 received the Gold Flag Award for its high achievement level.

The site was also awarded the government’s Zero Accident Award, by the Indonesian government. This award is presented to large companies that succeed in implementing the Occupational Safety and Health program to achieve zero accidents in three consecutive years.

Hazard Identification, Risk Assessment and Incident Investigation

Work-related hazards are addressed through hazard identification and reporting (including near-miss incidents), job safety analyses, site inspections and Process Hazard Reviews. Site employees are trained to use these tools, and local and global EHS&S leaders collaborate with the site to ensure the workplace is safer and more productive. The reporting of unsafe conditions and near-miss incidents is encouraged, with a site-specific target and reward program based on the number of corrective actions implemented to mitigate potential hazards identified.

All incidents are investigated. A formal investigation and root cause analysis process, aligned with an internationally recognized methodology, is used for recordable injuries as well as significant process safety incidents and environmental incidents. In 2020, a refresher training was conducted for 70 employees. All employees are trained to stop and to refuse actions that they consider hazardous for themselves, their colleagues and/or the community and environment.

Occupational Health Services

All operating sites have a program aligned with the HazCom program (Hazard Communication Standard from OSHA, the US Occupational Safety & Health Administration) for the identification and communication of chemical hazards. All sites also have a designated clinic or physician to evaluate occupational injuries or illnesses.

Worker Participation, Consultation and Communication on Occupational Health and Safety

Worker participation is required to address safety improvements and behavior. In many cases, sites have a safety committee integrated into the EHS&S council to oversee all safety-related matters. Additionally, all sites are required to conduct frequent safety meetings in all teams and escalate safety concerns.

Worker Training on Occupational Health and Safety

All sites conduct required safety training on hazardous materials (HazCom), critical safe work procedures, evacuation and process safety, among many others.

Additionally, in 2019 our global initiative “Be a Safety Leader” (BSL) was launched, to create the best possible safety culture through the inclusion of all colleagues. BSL is a process to understand how all employees can actively contribute and lead the day-to-day process of making our work environment the safest it can be. This culture change initiative has now been launched to 25 sites globally. Due to the COVID-19 pandemic and associated travel restrictions and social distancing requirements, the launch of the program at some sites has been delayed.

Instead, an alternative format of the training and materials was developed, and a virtual version was launched in the second half of 2020. This has allowed sites to continue to roll out the initiative and select the best means of delivering the content, either virtually or in a classroom setting, based on individual needs and local COVID-19 restrictions.

Sites are required to train all colleagues, establish site implementation teams, and develop creative approaches to conducting hazard assessments, defining critical behaviors, and providing coaching at all levels to ensure implementation.

Promotion of Worker Health

All Lonza employees are motivated and passionate about the critical importance of health, safety and injury prevention. They understand that investing in prevention and employee health and well-being pays dividends and ensures colleagues remain fully engaged.

Lonza offers free flu shots to all employees at most of our sites in Europe and in the US, an initiative that attracts high interest every year. This year, due to the COVID-19 restrictions, these flu shot campaigns were extended to other locations.

Prevention and Mitigation of Occupational Health and Safety Impacts

We continuously monitor our operations to identify potential health risks to our employees. This includes (but is not limited to):

- Job and technical hazard assessments, e.g. ergonomic hazards;
- Technical improvements;
- Training and education;
- Substance exposure monitoring for chemical exposures, according to the limit values set by the Corporate Toxicology group.

Our products are primarily pharma-related or regulated microbial control products. In addition to the required safety information, these products and their raw materials undergo extensive testing, registration requirements, and instructions for use, which assure they can be used safely in the market. The COVID-19 pandemic in 2020 brought new challenges, which we addressed by issuing global and local guidance on how to adapt the workplace to ensure hygiene and social distancing measures could be effectively enforced. Specific guidance was also published for employees who work remotely.



Our Lonza site in Portsmouth (USA) has invested in making the site a bike-friendly workplace for our employees. The goal is to promote and discuss the environmental and health benefits of alternative commuting, while optimizing the parking offer at the site. Site employees were surveyed to gauge the effectiveness of the program, and the site reached out to local stores to meet the growth in demand for bikes. The League of American Bicyclists recognized the site with its Bronze Award.



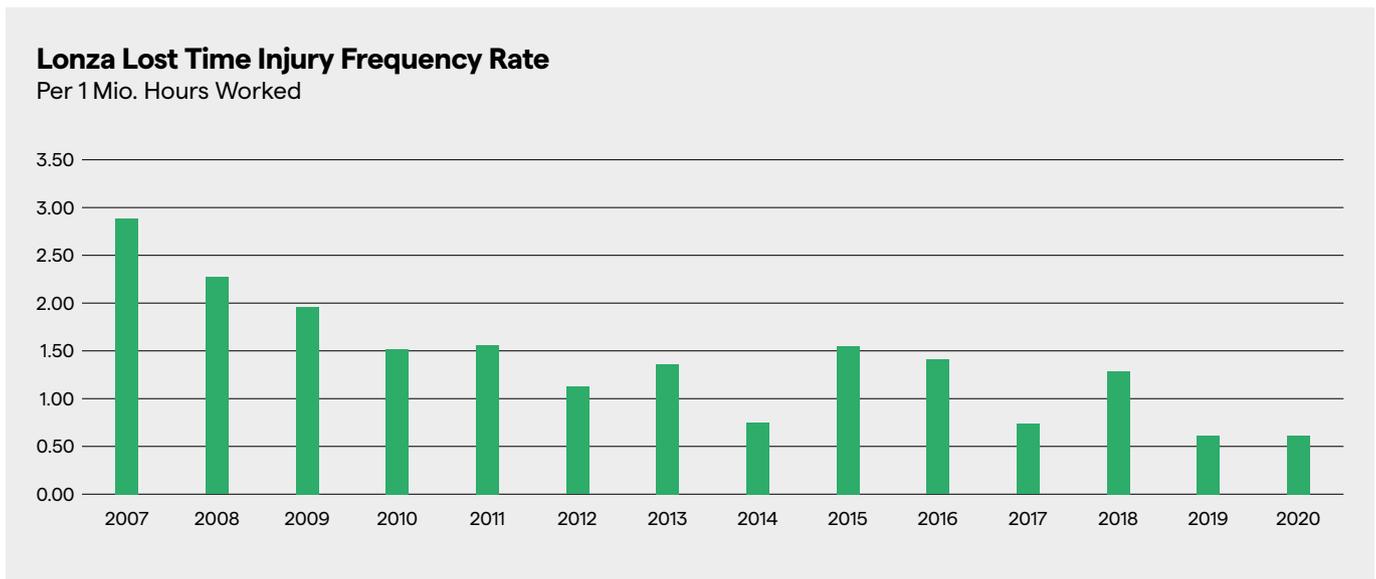
During the COVID-19 pandemic, additional safety measures were implemented to ensure the protection of employees in Visp (CH). Among other actions, disinfectants and personal protective equipment were distributed, and information and exchange platforms were created. With the “20-2-0” campaign, employees were made aware of compliance with hygiene and clearance rules. These included washing or disinfecting hands for 20 seconds on a regular basis, wearing a protective mask, keeping a two-meter distance from colleagues, with zero room for compromise. Thanks to the commitment and perseverance of all employees, we have managed to maintain the continuation of business activities at the Visp site at all times throughout the pandemic in 2020.

Work-Related Injuries

Over the course of 2020, we recorded a total of 22 Lost Time Injuries, which is similar to last year’s number. The number of Recordable Incidents was 86 in the reporting year. Tragically, in 2020 we lost a colleague to a work-related fatal injury, as a result of gaseous chemical exposure. A full investigation took place, in cooperation with local police authorities.

Most injuries recorded and analyzed in 2020 were the result of chemical contact, lifting, slips, trips, falls, sprains and strains, which are commonly root causes in our industry. There were no injuries resulting from commuting incidents from transport organized by the company.

Lost Time Injury Frequency Rates (LTIFR) are calculated based on one million hours worked. Data only represent employed workforce and agency workforce in regular manufacturing processes (type 1 contractors). All workers are included in incident tracking and reporting, but rate information is only available for direct employees, as contractor (type II) hours are not tracked. All injuries are analyzed and corrective actions are generated for specific incidents, as well as action plans for significant causal factors. Strains resulting from manual handling are a continuing concern. Several sites are undergoing ergonomic assessments and most sites have manual handling training, which uses the Safety in Motion system.



Non-Discrimination and the Protection of Human Rights

In 2020, we established a Diversity and Inclusion Taskforce to continue to underline the critical importance of a welcoming and inclusive work environment, in which diversity is embedded across our global network. We believe that diverse environments make a meaningful personal and professional difference to employees. They also drive business value by creating dynamic environments in which all employees are both comfortable and engaged. The Diversity and Inclusion Taskforce is governed by a Steering Committee comprised of senior company management. It is designed to reflect diversity through gender, age, seniority, ethnicity, personal background and professional experience. The Taskforce has a Leadership team that is responsible for engaging with local ambassadors at a site level to analyze diversity and inclusion issues across the company. Over the coming year, it will develop a roadmap to mitigate unconscious bias, foster inclusive leadership and ensure that all Lonza talents can thrive and add value to the business.

In addition, our Code of Conduct prohibits any form of discrimination. It states that we do not tolerate any discrimination, harassment or bullying on the basis of ethnicity, national origin, color, religion, sexual orientation, creed, age, sex, disability or any similar characteristic. We do not engage in or support, directly or indirectly, child labor, or bonded or forced labor of any kind. This applies to all our subsidiaries and to our suppliers, either directly or elsewhere in the supply chain.

All employees must comply with applicable laws and regulations at any location where we have operations, including child labor and forced labor. We provide annual training and self-certification to all our employees regarding compliance with our Code of Conduct. We also provide additional training to our purchasing employees on the Supplier Code of Conduct.

Respect for human rights is a foundation of the business across all our markets and operations. As a signatory of the United Nations Global Compact (UNGC) since March 2009, we support the protection of internationally agreed human rights and ensure that we are not complicit in human rights abuses. Being active in many parts of the world, we are present in some regions ranking high on human rights risk indices. We see it as our responsibility to assess our own operations with regard to potential human rights violations. In this context, we included this element in our 2019 employee survey, which was distributed across all sites and locations.

We also expect our suppliers to respect human rights, as reflected in the Supplier Code of Conduct. This sets out ethical and quality standards, including standards related to labor, health, safety, the environment and against corruption and bribery. Our Supplier Code of Conduct focuses in particular on human rights and labor laws, such as prohibiting the use of forced or involuntary labor, inhumane treatment or physical punishment of workers, the use of child labor below the age of

16 or the applicable minimum legal age, whichever is higher. It also sets out requirements regarding working hours, minimum wages, and overtime hours to be paid to employees, as well as any fringe benefits, in compliance with applicable local law. Our suppliers are required to implement internal measuring procedures, tools and indicators to guarantee adherence to the Lonza Supplier Code of Conduct principles.

According to the Lonza Sourcing and Purchasing Policy, we reserve the right to ask for a written confirmation of a supplier's compliance with the Supplier Code of Conduct and to audit its suppliers accordingly. If we are made aware of any non-compliance, we reserve the right to request corrective actions and/or to terminate any agreement with a non-compliant supplier, unless our supplier agreement provides otherwise.

Customer Health and Safety

We manufacture a broad range of specialty chemicals, hygiene actives, household disinfectants, cosmetic ingredients and preservatives, nutritional supplements, pharmaceuticals and biotech products. All of these products require a high and often regulated manufacturing practice to assure required standards of quality and efficacy. Our products in the personal, industrial, household care, consumer health and pharmaceutical areas, are subject to a high and increasing level of product regulation. They must be evaluated, manufactured, labeled and used appropriately, to exclude health and safety risks for customers and end-consumers.

Moreover, we must take into account public perceptions, regulation and global chemical management initiatives such as GHS (Globally Harmonized System for classification, labelling and packaging of chemicals). This is intended to reduce chemicals with a potential negative impact to human health and the environment and to have science-based risk profiles of the marketed substances. These trends can formally or informally restrict or limit the use of chemical substances and make Customer Health and Safety a critical element of excellence in our business sectors.

We are predominantly involved in business-to-business transactions. This constitutes part of our role as a supplier of goods that are used to manufacture final products for the pharma, chemicals and consumer markets. We work to ensure that our products are fit for purpose and can be used by customers safely for their intended purpose. Our customers are generally formulators who also have procedures and specialists to assess hazards and risks as well as promote the safety of their products. However, we believe that our responsibilities include providing the foundation and data for the safe use of our customers' products.

We believe that our performance in the area of Customer Health and Safety sets the standard for our immediate peer group. Even so, our performance in assessing and improving the health and safety impacts of our products, remains an area of growth and investment as we integrate acquisition products and businesses into our product stewardship and management structures. In particular, global SAP EHS capabilities, global procedures and control, and comprehensive databases continue to be developed to improve our performance as they are brought online.

Our guiding Code of Conduct requires compliance with all applicable regulations governing our businesses. However, we are committed to achieving a high-performance product safety and regulatory culture that goes beyond fulfilling technical requirements. Our management approach to customer health and safety is intended to minimize the potential of negative impacts associated with the use of our products.

We have experts in regulatory compliance and registration, dangerous goods and product classifications, toxicology and risk assessment and product stewardship, covering regions in which we do business and our business segments. These functions are integrated into marketing and business initiatives and represent a significant component of our value proposition. Product health and safety profiles are evaluated through systematic processes and procedures embedded in our organizational and business structures.

Chemicals Registration, Labeling and Packaging

Our product formulation expertise, product-regulatory assurance and global regulatory support provide distinct competitive advantages in a world of increasing chemicals registration, labeling and packaging requirements. We have a team of more than 60 regulatory experts in Europe, the Americas and Asia Pacific who serve and support our businesses globally, ensuring compliance with existing regulatory requirements and staying abreast of future requirements. Their expertise is also of great value to customers who incorporate our regulated ingredients into their applications.

Challenging programs include the European Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) initiative, the European Biocidal Products Regulation (BPR) and the US EPA Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). In addition, other countries are launching similar regulatory schemes (e.g. China-REACH, Korea K-REACH and K-BPR, Turkey KKDİK). These are ongoing efforts, and we continue to strive to comply with the requirements.

Regarding the health and safety of our employees, we made significant improvements relating to the risk of exposure to chemicals in the work environment with the formation of a corporate function for toxicological assessments of substances in 2018. Previously, this assessment was carried out locally on the sites or by consultants. During 2020, over 900 substances were assessed or reassessed for their safe handling limits.

About Animal Welfare

To ensure the safe handling and use of products, regulatory authorities in many countries require animal testing. Whenever possible we use validated alternatives to animal tests, and we cooperate with independent contract laboratories, which are carefully selected to ensure they meet the highest ethical and quality standards. When qualifying contract labs, we evaluate their accreditation concerning animal welfare protection as well as their ability to adhere to 3R principles (Replacement, Reduction and Refinement) and adopt alternative methods. In the LSI segment for example, we seek opportunities to contribute to and participate in scientific collaboration validating new alternative methods.

We have also developed alternatives to animal testing. Examples include the Bioscience Solutions' primary cell and media product lines, which represent one of the major alternatives to animal models in R&D labs.

Assessment of the Health and Safety Impacts of Product and Service Categories

We believe that the development and production of effective products that can be used safely for their intended purpose is fundamental to sound and ethical business practices. Regulatory, Product Safety and Toxicology functions are involved from an early stage in product development and developing business initiatives via Integrated Product Management (IPM) and Regulatory Review Committee (RRC) processes. Ingredients, products and their intended applications and uses are evaluated for hazards and assessed for risks. Any potential hazards and risks associated with their intended use are clearly communicated to our customers via product labels, Safety Data Sheets (SDS) and technical communications.

Socioeconomic Compliance

Our Code of Conduct requires compliance with all applicable laws and regulations, as well as in social and economic areas. All employees are educated to understand and comply with all laws, regulations and best practices that apply to their activities, whether they relate to accounting, tax, anti-corruption, competition, the provision of products or services, labor issues or others. It provides specific sections on compliance with the principles of fair competition and laws restricting the operation of cartels and other monopolistic practices, anti-bribery laws and regulations, as well as insider trading regulations.

We provide annual training to all our employees regarding compliance with our Code of Conduct, and have the Lonza Ethics Hotline in place.



Talent Management

As Lonza continues to evolve, shared knowledge and a high-performance culture are vital to drive employee commitment and ensure delivery for our customers. Our talent management principles and process are there to enable and support these imperatives.

In particular, we believe it is particularly important to drive the aspirations, potential and performance of our top talent. Our aim is to make a meaningful difference to our employees, by ensuring that Lonza is a place to be and stay. We do this by assessing the potential fit of our employees, considering both current and future positions. This responsibility lies with our People Managers who play a fundamental role in supporting team development.

We also work to enable and encourage employees to take responsibility for their own professional learning and development journey. Our learning model encompasses structured learning via tools such as LinkedIn Learning, alongside development opportunities from our Mentoring Program, while also taking opportunities to learn from experience.

To support talent acquisition and development across our organisation, we have a number of successful initiatives to support talent management in 2020:

- In 2019, we launched our global Talent Referral Program to encourage and incentivize our employees to refer friends and acquaintances for vacant positions across our business. In 2020 we saw a 16% increase in the number of referrals and a broadly consistent number of candidates being sourced through this channel. This shows strong progress towards establishing colleague referrals as a viable recruitment mechanism;
- Our global learning and development program was launched in 2020 via the LinkedIn Learning and Mentoring Program, enabling our employees to take responsibility of their own learning and development regardless of location, by tapping into the existing knowledge, skill and experience of our existing leaders to pass on to the next generation of Lonza talent.;
- In 2019, we built on existing local recognition and service awards to pilot a broader recognition and reward program at several sites globally. Based on its success and positive feedback from participants, in 2020 we launched globally a recognition program, named BRAVO, where over 15,000 individual 'thank you' messages and awards were sent across the business. The goal of the program is to encourage collaboration, teamwork and recognition across the Lonza network, supporting and enabling a positive and self-reinforcing company culture.

Our Principles of Talent Management

Accountability

Manager accountability to continuously review talent pipeline – creating paths for top talent and building succession within the respective organization



Empowerment

Enable critical experiences and cross-functional moves or career re-invention and manage the transition of new role and enable its success

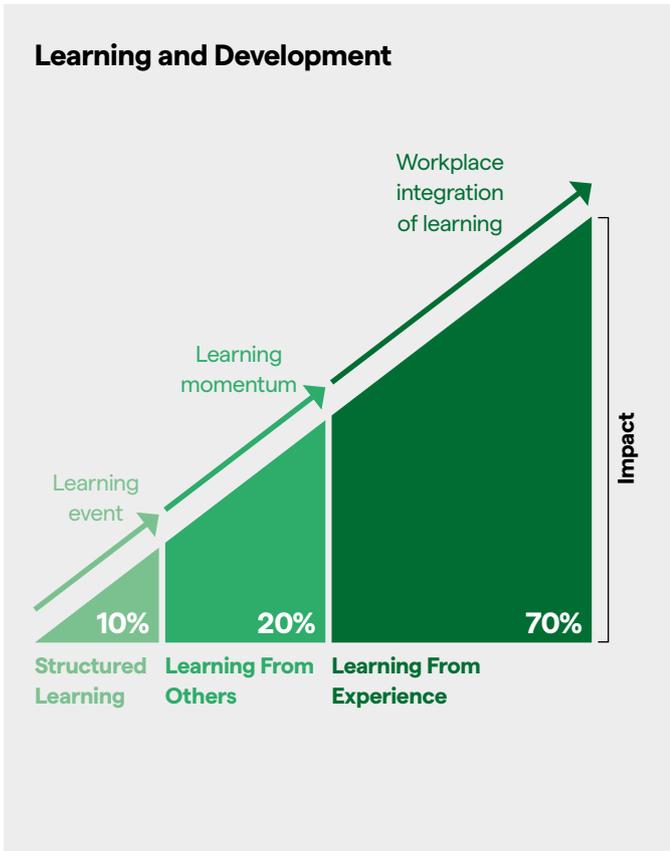
Employee-Centered

Need for regular conversation, considering talent as a 'whole' not just the performance and ensuring career movement is aligned with individual aspirations

Performance Management

All employees participate in the Lonza performance management process, which we call MAP (Maximizing and Aligning Performance). Through this program, we recognize and encourage exceptional individual effort, behaviors and achievement through performance check-in conversations, personal recognition and incentive plans. In addition, employees get an opportunity to communicate their interests and career aspirations. Leaders provide coaching, feedback and the opportunity to grow skills through development and planning activities.

“Employees get an opportunity to communicate their interests and career aspirations.”



Employee Engagement

We work to ensure that Lonza is a place where people are engaged and enabled to perform. Employee engagement is a key enabler because we want our employees to:

- Evolve with us
- Create tomorrow's solutions
- Empower our customers' success
- Impact what matters
- Engage in safety and sustainability

In 2019, we launched a new Employee Value Proposition (EVP), with the strapline, "A Meaningful Difference". Recognizing that retaining and attracting the best talent is essential to achieve our company's growth goals, we embarked on a program to refresh our employer brand. To do so, we undertook extensive research including the voice of our employees and perceptions from the external talent community. The outcome enables us to describe the overall experience at Lonza:

We are here to make a Meaningful Difference. It is the foundation of the way we do business. Looking after our people, our customers and our planet is core to our purpose. A career at Lonza is more than a job. What we do today is helping to create a healthier, happier world tomorrow. That's the meaningful difference we make.

Our EVP is a reflection of our employees' experience of the organization and its people. An authentic position allows our employees to better connect with the global organization and act as ambassadors to contribute to the future growth of the organization.

This year we have prepared for the localization of our global EVP for key sites across the Lonza network, in different regions as well as functions (including Quality and MSAT). The aim is to gather local- and function-specific insights, and new perspectives on our EVP to ensure that it is appropriately targeted at both international and local candidates.

To better connect with our employees, our segments, our businesses and our sites, we conduct employee surveys regularly. For example, the LPBN Pulse Survey contains questions on different topics, including Engagement, Future Vision and Leadership, Growth and Development and Change Management. These are all designed to capture employees' feedback on our culture, our performance and provide an opportunity to suggest improvements. Survey results are handled with absolute confidentiality. With the 2020 transformational changes to the Lonza business, a broader survey was not conducted. However, as part of his onboarding program, the new CEO conducted a series of focus groups with a broad cross-section of global employees to understand priorities and concerns across the business.

"A career at Lonza is more than a job. What we do today is helping to create a healthier, happier world tomorrow. That's the Meaningful Difference we make."



Social

Crossing in Mexico City

GRI Overview

The reporting period is the calendar year 2020. This is our third sustainability report following the principles of the GRI. We expect to continue to report on an annual basis. Our GRI Report 2020, prepared in accordance with the GRI Standards: core option, has not been externally assured.

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GRI Index, UNGC Communication on Progress, and SASB* Index

GRI standard	Disclosure	Page	Comments	UNGC	SASB*	
General Disclosures						
GRI 102: General Disclosures 2016	102-1	Name of the organization		Lonza Group Ltd		
	102-2	Activities, brands, products, and services	10	-		
	102-3	Location of headquarters		Lonza Group Ltd Muenchensteinerstrasse 38 4002 Basel, Switzerland Tel +41 61 316 81 11 Fax +41 61 316 91 11 sustainability@lonza.com www.lonza.com		
	102-4	Location of operations		Please consult our website: https://www.lonza.com/about-lonza/company-profile/locations-worldwide.aspx		
	102-5	Ownership and legal form		Lonza Group Ltd. is a public company, listed at the Swiss Stock Exchange (SIX) and with a secondary listing at the Singapore Exchange Securities Trading Limited (SGX-ST).		
	102-6	Markets served	10			
	102-7	Scale of the organization		Page in Annual Report 2020 • Our Businesses – 34 • Financial Statements – 84 • Risk Management – 165 • Our Strategic Focus – 20		
	102-8	Information on employees and other workers	14		Principle 6	HC-BP-330a.1HC-BP-330a.2
	102-9	Supply Chain	17		Principle 1	HC-BP-430a.1
	102-10	Significant changes to the organization and its supply chain		Page 8/9 AR 2020		
	102-11	Precautionary Principle or Approach	13			
	102-12	External Initiatives	18		Principle 9	
	102-13	Membership of associations	18		Principle 9	
	102-14	Statement from senior decision-maker	4			
	102-15	Key impacts, risks, and opportunities	13			
	102-16	Values, principles, standards, and norms of behavior	14		Principle 1, 2, 3, 10	
	102-17	Mechanisms for advice and concerns about ethics	14		Principle 1, 2, 10	
	102-18	Governance structure	13		Principle 8	
	102-40	List of stakeholder groups	20			

Sustainability Report 2020

GRI standard	Disclosure	Page	Comments	UNGC	SASB*	
General Disclosures cont.						
GRI 102: General Disclosures 2016 cont.	102-41	Collective bargaining agreements	20	<p>In Lonza, on global level there are no employee organizations and representatives. Therefore, we are not collecting specific information about collective bargaining agreements in affiliates. Generally, Lonza Group companies are established in countries where representation of employees is the rule, via work councils, unions and collective bargaining agreements. Local Management is responsible for maintaining good labor relations according to legal requirements and agreements with unions, work councils and other employee representing bodies.</p> <p>We respect these relationships and work with these parties in a mutually respectful manner. In addition to the country-specific employee representation, we have also established a European Work Council that holds regular meetings. This is designed to maintain a positive culture of information and communication. In the European Works Council, all European countries with more than 100 employees are represented by employee nominated delegates: Belgium, France, Germany, Czech Republic, the Netherlands, Spain, the United Kingdom and Switzerland. The European Work Council is assisted and supported by a union secretary.</p>	Principle 3t	
	102-42	Identifying and selecting stakeholders	20			
	102-43	Approach to stakeholder engagement	21			
	102-44	Key topics and concerns raised	21			
	102-45	Entities included in the consolidated financial statements		A listing of principal subsidiaries and joint ventures of Lonza Group Ltd is available in Note 33 of the financial statements in the Annual Report 2020.		
	102-46	Defining report content and topic Boundaries	22			
	102-47	List of material topics	23			
	102-50	Reporting Period	60			
	102-51	Date of most recent report	60			
	102-52	Reporting cycle	60			
	102-53	Contact point for questions regarding the report	60			
	102-54	Claims of reporting in accordance with the GRI Standards	60			
	102-55	GRI Content Index	61			
102-56	External assurance	60				
Economic						
GRI 201: Economic Performance 2016	103-1	Explanation of the material topic and its boundary	25			
	103-2	The management approach and its components	25			
	103-3	Evaluation of the management approach	25			
	201-1	Direct economic value generated and distributed	25			

GRI standard	Disclosure	Page	Comments	UNGC	SASB*	
Economic cont.						
GRI 205: Anti-corruption 2016	103-1	Explanation of the material topic and its boundary	26		Principle 10	HC-BP-510a.1 (losses not reported)
	103-2	The management approach and its components	26		Principle 10	
	103-3	Evaluation of the management approach	26		Principle 10	
	205-1	Operations assessed for risks related to corruption	26		Principle 10	
	205-2	Communication and training about anti-corruption policies and procedures	26		Principle 10	
Quality and reliability			28			
Customer satisfaction			30			
Environmental				Principle 7, 8		
GRI 302: Energy 2016	103-1	Explanation of the material topic and its boundary	34		Principle 7	
	103-2	The management approach and its components	34		Principle 7	
	103-3	Evaluation of the management approach	34		Principle 7	
	302-1	Energy consumption within the organization	34		Principle 7	
	302-3	Energy intensity	34		Principle 7	
GRI 303: Water 2016	103-1	Explanation of the material topic and its boundary	36		Principle 7	
	103-2	The management approach and its components	36		Principle 7	
	103-3	Evaluation of the management approach	36		Principle 7	
	303-1	Water withdrawal by source	36		Principle 7	
GRI 305: Emissions 2016	103-1	Explanation of the material topic and its boundary	38		Principle 7	
	103-2	The management approach and its components	38		Principle 7	
	103-3	Evaluation of the management approach	38		Principle 7	
	305-1	Direct (Scope 1) GHG emissions	39		Principle 7	
	305-2	Energy indirect (Scope 2) GHG emissions	39		Principle 7	
	305-4	GHG emissions intensity	40		Principle 7	
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	40		Principle 7	

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GRI standard	Disclosure	Page	Comments	UNGC	SASB*
Environmental cont.				Principle 7, 8	
GRI 306: Effluents and Waste 2016	103-1	Explanation of the material topic and its boundary	41		Principle 7
	103-2	The management approach and its components	41		Principle 7
	103-3	Evaluation of the management approach	41		Principle 7
	306-1	Water discharge by quality and destination	42		Principle 7
	306-2	Waste by type and disposal method	43		Principle 7
GRI 307: Environmental Compliance 2016	103-1	Explanation of the material topic and its boundary	44		Principle 7
	103-2	The management approach and its components	44		Principle 7
	103-3	Evaluation of the management approach	44		Principle 7
	307-1	Non-compliance with environmental laws and regulations	44		Principle 7
Innovating for Sustainability			44		Principle 9
Social					
GRI 403: Occupational Health and Safety 2018	103-1	Explanation of the material topic and its boundary	49		Principle 8
	103-2	The management approach and its components	49		Principle 8
	103-3	Evaluation of the management approach	49		Principle 8
	403-1	Occupational health and safety management system	50		Principle 8
	403-2	Hazard identification, risk assessment, and incident investigation	50		Principle 6
	403-3	Occupational health services	50		Principle 6
	403-4	Worker participation, consultation, and communication on occupational health and safety	50		Principle 6
	403-5	Worker training on occupational health and safety	50		Principle 6
	403-6	Promotion of worker health	51		Principle 6
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	51		Principle 6
403-9	Work-related injuries	52			

GRI standard	Disclosure	Page	Comments	UNGC	SASB*
Social cont.					
GRI 406: Non-discrimination 2016	103-1	Explanation of the material topic and its boundary	53		Principle 1, 2, 4, 5, 6
	103-2	The management approach and its components	53		Principle 1, 2, 4, 5, 6
	103-3	Evaluation of the management approach	53		Principle 1, 2, 4, 5, 6
	406-1	Incidents of discrimination and corrective actions taken		Omissions: No disclosures on discrimination incidents.	Principle 1, 2, 4, 5, 6
Protection of Human Rights			53		Principle 1, 2, 4, 5
GRI 416: Customer Health and Safety 2016	103-1	Explanation of the material topic and its boundary	53		
	103-2	The management approach and its components	53		
	103-3	Evaluation of the management approach	53		
	416-1	Assessment of the health and safety impacts of product and service categories	54		
GRI 419: Socioeconomic Compliance 2016	103-1	Explanation of the material topic and its boundary	54		Principle 2
	103-2	The management approach and its components	54		Principle 2
	103-3	Evaluation of the management approach	54		Principle 2
	419-1	Non-compliance with laws and regulations in the social and economic area		Omissions: No disclosures on non-compliance in the socioeconomic area.	
Talent management			56	Page 30 AR 2020	HC-BP-330a.1
Employee engagement			58	Page 30 AR 2020	HC-BP-330a.1

* Sustainability Accounting Standards Board (SASB) – we have aligned our disclosures with the Biotechnology and Pharmaceuticals Sustainability Accounting Standard. As a Contract Development and Manufacturing Organization (CDMO) most of the SASB indicators do not apply.

The Ten Principles of the United Nations Global Compact

Human rights

- Principle 1** Businesses should support and respect the protection of internationally proclaimed human rights;
- Principle 2** make sure that they are not complicit in human rights abuses.

Labor

- Principle 3** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4** The elimination of all forms of forced and compulsory labor;
- Principle 5** The effective abolition of child labor;
- Principle 6** The elimination of discrimination in respect of employment and occupation.

Environment

- Principle 7** Businesses should support a precautionary approach to environmental challenges;
- Principle 8** Undertake initiatives to promote greater environmental responsibility;
- Principle 9** Encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

- Principle 10** Businesses should work against corruption in all its forms, including extortion and bribery

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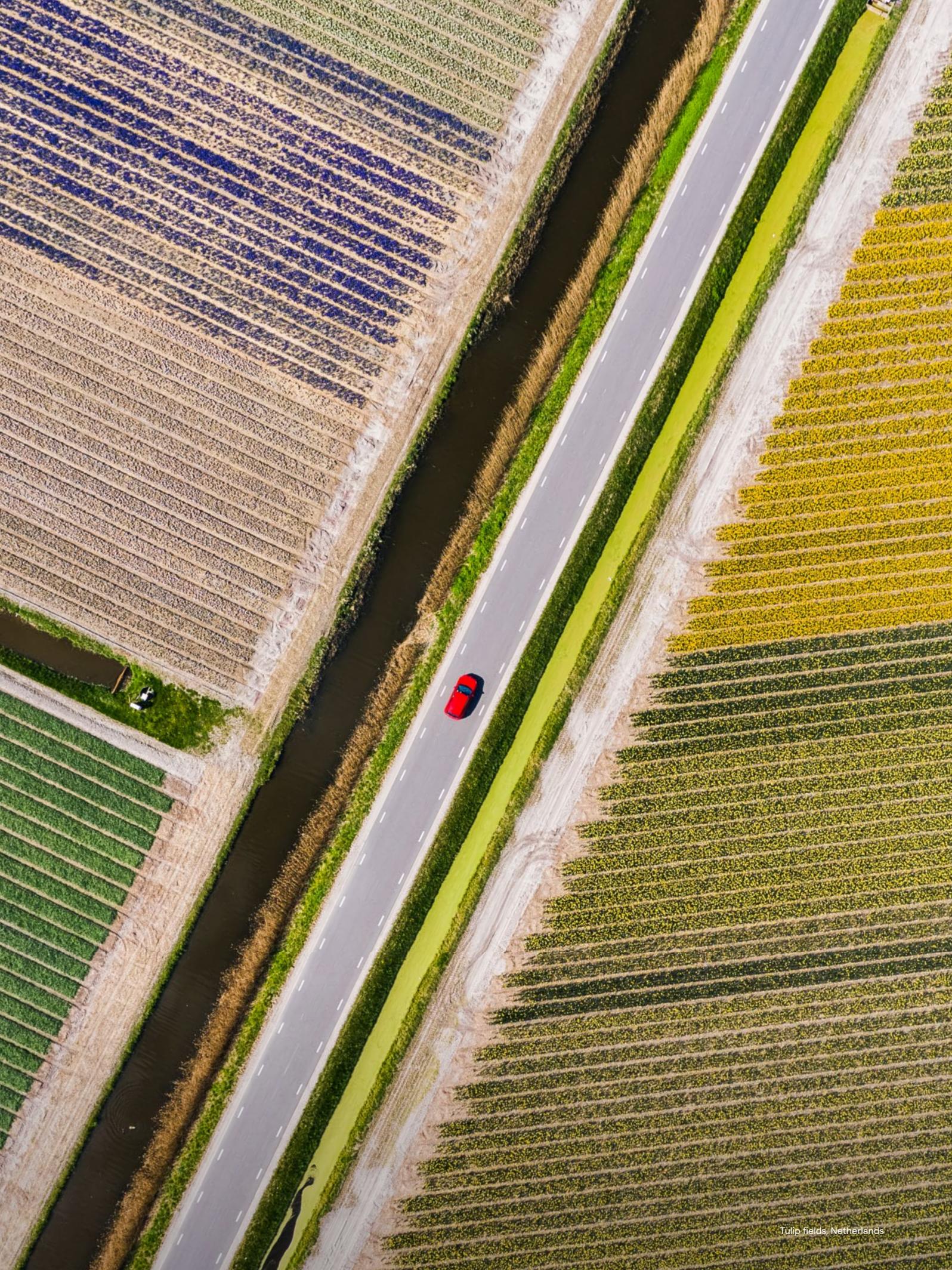
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