

Sustainability Report

2018



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Our Commitment to Sustainability

Dear Stakeholders and Friends of the Company

Sustainability is a key consideration for us in all we do. That is one reason our employees are proud to work for Lonza, a Swiss company that has been successful for more than 120 years.

Evolving from a producer of electricity and carbide products into a leading provider for medicines and consumer goods along and beyond the Healthcare Continuum® Lonza has a long-standing commitment to safety and sustainability.

Today sustainability is a critical part of Lonza's economic success, and we take our social and environmental responsibility seriously.

We believe we can create value for society by innovating science-based solutions along the Healthcare Continuum® to develop the medicines and consumer products of tomorrow.

Our people are the cornerstone of our business, so we want all our employees to grow and develop professionally at a sustainable pace. We provide them safe workplaces, care for their well-being and foster their involvement in creating a positive working environment.

As a baseline for whatever we do, we ensure that regulatory compliance; integrity and ethical conduct are the foundations in every place we operate.

More than five years ago, we took a step up to operate even more safely and sustainably by announcing our Vision Zero, the aspiration to work without incidents and reduce emissions, water consumption and waste. This program has led to a remarkable reduction in incidents and increased efficiency.

We continue to improve our environmental footprint by continually reducing energy, water and material demand per unit. With a long-term view to 2030, we want to reduce consumption considerably to align with the broadly accepted CO₂ reduction targets.

Richard Ridinger
Chief Executive Officer



Richard Ridinger, CEO

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 per unit.

Value for Society

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

Introduction

As part of our overall sustainability commitment, Lonza fosters transparency and reporting in line with the Global Reporting Initiative (GRI) Standards, which represent the industry practice for tracking performance on a range of economic, environmental and social indicators.

To strengthen our commitment to sustainability and to better share best practices across the entire company, a Sustainability Council was established in 2018 by Lonza's Executive Committee. The cross-functional Council is headed by the Lonza Group General Counsel and includes members from Legal, Environment Health & Safety, Human Resources, Investor Relations and Corporate Communications and it directly interacts with the Executive Committee and the Board of Directors. The ultimate responsibility for all sustainability-related matters lies with the Chairperson of 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 already-established best practices across businesses 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 outside stakeholders

One of the Council's first tasks was reviewing and upgrading our environmental, health and safety (EHS) and our sustainability commitments. We have numerous activities and projects underway to deeper embed sustainability within the company's operations and external collaborations.

Lonza's 2018 Sustainability Report provides insights into our commitments and performance regarding the most relevant sustainability topics for the company and our stakeholders. In preparing the report, we first conducted a materiality assessment to prioritize the themes, initiatives and focus areas that best support sustainable development. We also aimed to identify the United Nations (UN) Sustainable Development Goals of relevance to Lonza.

Lonza and the UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) contain 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 Lonza's products and services have helped to address global megatrends, such as the need for healthful and abundant food, clean water, affordable medicines and health care, and the growing desire worldwide for enhanced hygiene, health and well-being.

We have assessed the 17 SDGs and identified 9 that we consider to be most relevant to our industry, operations and sustainability focus areas. We have tried to tie each material topic from the Materiality Assessment to a relevant SDG.



Lonza's Agro Ingredients business offers highly effective products and custom agricultural manufacturing services designed to improve crop yields and food quality and to reduce farmers' need for pesticides, herbicides, water and fertilizers. Lonza also is a supplier of vitamin B3 compounds such as niacinamide, a part of which we donate to a non-profit organization that provides free vitamins to poor pregnant women and children.



In Lonza's Pharma & Biotech segment, our vision is to enable our customers to meet some of the greatest challenges in patient treatment with products, services and cutting-edge technologies that help save lives, extend lives and enhance lives.

Lonza's Consumer Health business provides advanced nutritional ingredients used in everything from energy drinks and dietary supplements to sports nutrition. We also provide certified organic and natural cosmetic ingredients and other skin and hair-care treatments that help people feel and look their best.



We have established several partnerships with universities worldwide. Also we engage in sponsoring activities with educational institutions. For example, Lonza India has supported a local school by constructing and renovating school buildings and by setting up the e-learning facilities, a computer lab and a science lab.

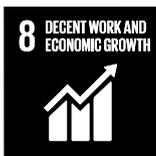


We draw strength and competitive advantages by having a diverse global workforce, where men and women are given equal opportunities to excel and advance regardless of race, gender, sexual orientation or religion. In addition to offering equal pay for equal work, we provide flexible workplace policies that acknowledge the need for a healthful balance of work and home life and for personal work styles.



Lonza's Water Care business provides flocculants and other water-treatment chemistries for drinking water worldwide. This business also provides highly effective disinfectants and sanitizers that protect people from dangerous pathogens in homes, restaurants, hospitals and other medical care facilities, cruise ships, airliners, hotels and other public places.

Lonza has been providing significant corporate and business support to our Sanitation for Africa™ initiative, under which we have teamed up with the non-governmental organization Clean Habitat Uganda and others to provide our HTH Scientific® sanitizer tablets for use in pit latrines in economically disadvantaged villages and homes in Uganda and Mali. Lonza signed an agreement to divest Water Care business to Platinum Equity in November 2018.



At Lonza 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, so do our employees, their families and communities, our local and regional suppliers and many others.



Lonza continuously invests in innovation while further improving our operational excellence. We have a robust global supply chain and state-of-the-art manufacturing and research facilities, such as our new facility in Texas (US), which is the world's largest dedicated cell- and gene-therapy manufacturing facility. We also are the pioneers of vital, game-changing technologies, including gene-editing systems.



At Lonza we strive in our manufacturing operations 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 2017 we already reached the intensity goals for energy consumption and carbon emissions that we had set for 2020. Going forward we will strive to continuously improve our energy efficiency and to reduce our carbon footprint to levels required by the Paris Agreement.

Material Topic	SDG
Product Range, 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, 6, 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



General Disclosures



>70

Manufacturing
and R&D Facilities

27.3

CORE² EBITDA¹
Margin in %

15,375

Employees End of 2018

5.5 bn

Sales¹ in CHF

>30

Countries Around
the World

1.5 bn

CORE EBITDA¹
in CHF

31.4

CORE RONOA¹
in %

8.0

ROIC¹ in %

1.2 bn

CORE EBIT¹ in CHF

~630

Active Patent
Families

¹ Lonza continuing operations excluding Water Care business as discontinued operations

² Lonza believes that disclosing CORE results of the Group's performance enhances the financial markets' understanding of the company because the CORE results enable better comparison across years. See more in [Supplementary Financial Information – CORE results](#)

General Disclosures

1. Organizational Profile

Activities, Brands, Products, and Services

Founded in 1897 in the Swiss Alps, Lonza today is a well-respected global company which, end of 2018, holds more than 100 sites and offices and has approximately 15,500 full-time employees worldwide. The company generated sales of CHF 5.5 billion in 2018 with a CORE EBITDA of CHF 1.5 billion.

Lonza is one of the world's leading and most-trusted suppliers to the pharmaceutical, biotech and specialty ingredients markets. As a global integrated solutions provider, Lonza is boosting its value creation along and beyond the Healthcare Continuum® with a strong focus on patient healthcare, consumer preventive healthcare and a healthy environment for consumers. Lonza is a company of high-performing teams and individual employees who are encouraged to act with an entrepreneurial spirit to serve our customers.

The company serves this Healthcare Continuum® and selected other targeted markets through a broad range of products and services in its Pharma & Biotech and Specialty Ingredients segments. The core competitive advantages are advanced manufacturing and quality-control systems, superior regulatory expertise, in-depth market knowledge, extensive technical-customer support and strong R&D capabilities.

Lonza harnesses science and technology to create solutions that contribute to healthier living by developing and manufacturing preventive and curative medicine for pharma and biotech companies and their patients, nutritional ingredients and personal-care products for consumer health and anti-microbial solutions for safe environment. We provide full-service offerings to our customers in the pharma, healthcare and industrial markets – from the molecule to the patient, from nutritional ingredients to value-added consumer solutions and from microbial control ingredients to safe surroundings. With the Capsugel acquisition in 2017, Lonza offers ranges from custom development and manufacturing of active pharmaceutical ingredients to innovative dosage forms for the pharma and consumer health and nutrition industries.

Benefiting from its regulatory expertise, Lonza is able to transfer its know-how from pharma to hygiene and fast-moving consumer goods all the way to coatings and composites and the preservation and protection of agricultural goods and other natural resources. A strong ethical thread is interwoven throughout the entire Lonza organization and consists of a firm commitment to ethical business conduct.

Lonza also takes a sustainable development approach to minimizing our impact on the environment, conserving energy and natural resources, and helping to improve the quality of life. In addition, the goal of Lonza's Vision Zero initiative is to reduce workplace acci-

dents and injuries, environmental incidents, manufacturing process incidents, and transportation incidents. Through these and other safety, quality and human resource initiatives, the company strives to be the place to go, stay and grow.

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 2018.

Markets Served

Lonza's strategy is to be the leading integrated, value-adding solutions provider for the Healthcare Continuum®. Through our Pharma & Biotech segment businesses and our Specialty Ingredients segment businesses, we harness science and technology to serve markets along this continuum – from creating a healthy environment to promoting a healthier lifestyle and preventing illness through consumers' preventive healthcare to improving patient healthcare. Lonza creates solutions that contribute to healthier living by developing and manufacturing preventive and curative medicine for pharma and biotech companies and their patients, nutritional ingredients and personal-care products for consumer health and anti-microbial solutions for safe environment. We have introduced the four "Ps" to define the scope of our Healthcare Continuum® and translate it into concrete markets and offerings for our customers – prescription, prevention, protection and preservation.

The four "Ps" demonstrate our capabilities to provide full-service offerings to our customers in the pharma, healthcare and industrial markets – from the molecule to the patient, from nutritional ingredients to value-added consumer solutions and from microbial-control ingredients to safe surroundings.

More information on our three strategic pillars is provided in our segment report of the Annual Report :

[*Pharma & Biotech*](#)

[*Specialty Ingredients – Consumer Health*](#)

[*Specialty Ingredients – Consumer & Resources Protection*](#)

Information About Major Customers:

In 2018 Lonza's largest customer accounted for 5.0% and the second, third, fourth and fifth largest customers for 4.7%, 3.8%, 3.1% and 2.0% in relation to total Group sales, respectively. No other customer accounted for 2.0% or more of Lonza's total sales. Out of the five largest customers, the third-largest relates to the Specialty Ingredients segment, whereas the other largest customers relate to the Pharma & Biotech segment.

More Detailed Information on Geography, Segments and Value Creation:

[*Annual Report 2018*](#)

[*Geographic*](#)

[*General Information*](#)

[*Markets*](#)

Lonza – The Healthcare Continuum[®]

Pharma & Biotech



Patient Healthcare

- Clinical development and manufacturing
- Commercial manufacturing
- Consumables and research tools

Consumer Health



Consumer Preventive Healthcare

- Consumer health and nutritional ingredients and delivery systems
- Hygiene and microbial-control solutions

Consumer & Resources Protection



Consumers' Healthy Environment

- Coatings and composites solutions
- Agricultural products and services including basic chemicals

Capsugel

Biotechnology
Fine Chemistry
Analytics
Regulatory
Bioavailability

Biotechnology
Fine Chemistry
Analytics
Regulatory
Formulation

Prescription

Prevention

Protection

Preservation

Lonza's Integrated Offerings in Pharma & Biotech and Consumer Health

Pharma & Biotech

- Drug Substance Development
- Drug Substance Manufacturing
- Drug Product Development
- Drug Product Manufacturing

Customized Ingredients

Delivery and Dosage Product Differentiation

Consumer Health

- Ingredients Backed by Science
- Innovative Delivery Systems
- Integrated Product Solutions

Patient Healthcare

Chemical Technologies and Biologics, Science and Regulatory Expertise

Consumer Preventive Healthcare

Scale of the Organization

Page in Annual Report 2018

Number of Employees	13
Group Companies	245 seq
Net Sales	129
Total Capitalization	131
Risk Management	243
Group Strategy	21 seq

more than
100
nationalities
mainly from Switzerland and the United States

Lonza's Workforce

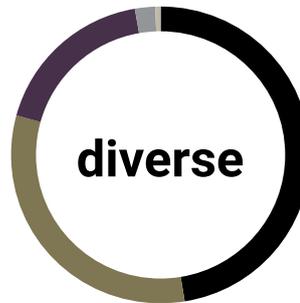
highly engaged

according to our Life@Lonza

employee survey:

- 80 % response rate
- 2000+ follow-up actions

- EMEA
- North Americas
- APAC
- South Americas
- Central Americas



mainly based in EMEA, has increased in APAC and the Americas due to recent acquisitions



balanced
across all age groups

Workforce Statistics		2017*	2018
Gender	Male	10,066.6	10,632.8
	Female	4,256.1	4,742.4
Region	Americas	5,271.8	5,526.0
	EMEA	6,321.7	6,970.0
Hires**	APAC	2,729.3	2,879.0
	Hires by region**	Americas	2,325.0
Turnover (heads)	EMEA	1,917.0	1,008.0
	APAC	1,207.0	416.0
Turnover by Region	APACa	165.0	288.0
	Americas	405.0	769.0
	EMEA	334.0	510.0

* Without any International Assignees

** Inclusive Acquisitions (Capsugel, MicMac, Pharma Cell, Shire, Hansa Biomed in 2017, Octane in 2018)

31%
female

30% female
Board members

50% female
business unit heads

Supply Chain

Value Chain and Supply

Lonza's diverse supply chains have been tailored to the respective businesses. Value chain managers oversee the respective value chain, continuously seek for improvements in value for our customers and Lonza, and follow through on performance targets. Manufacturing plants are fully or partially dedicated to individual business units and globally governed by operations functions in the two segments.

External supplies are managed by procurement teams around the globe; the central procurement team is structured along global spend categories. They manage spend aggregation and market positioning of Lonza in the applicable sourcing markets, contract top suppliers and oversee associated supplier relationships.

Due to the variety of businesses, Lonza's supply base comprises approximately 27,000 suppliers. The complexity of roughly 3,000 direct material suppliers range from those providing cracker feedstock for our Visp site, basic chemicals, nature-derived materials such as Gelatin, to ones providing high-end systems and consumables for biopharmaceuticals, as well as specialized components for gene and cell therapy production. Supplies stem from locations around the globe, while 85 % of Lonza spend originates from European or North American supply locations.

Compliance

Lonza is one of the world's leading and most trusted suppliers along and beyond markets of the Healthcare Continuum®. As part of the commitment to sustainable development in all its business and operational activities, the Lonza Code of Conduct establishes the professional standard for Lonza employees at all levels of the company. It serves to define how we do business and how we interact with each other by applying high ethical standards.

Lonza's Supplier Code of Conduct governs how we evaluate and set high standards for our suppliers. We are aware of the significant responsibility for assuring sustainability throughout our supplier base.

In addition to carefully selecting and evaluating suppliers to secure specified quality raw materials and services, we reserve the right to monitor and audit suppliers to improve performance and our mutually beneficial relationships. Included into this monitoring system are the principles of the Supplier Code of Conduct.

Sustainability in Procurement

Based on dialogue with stakeholders, Lonza identified gaps, future trends and requirements with regards to sustainable sourcing and supplier risk assessment. The resulting Procurement performance targets include:

- Development of approaches for sustainable procurement
- Voluntary membership in sustainable sourcing platforms to engage with industry and to enhance our capabilities
- Establish and maintain a systematic and integrated supplier risk management system

The company is an active member of the Pharmaceutical Supply Chain Initiative. This active membership enhances the firm's capabilities and processes in sustainable supply chain management.

In addition, the procurement department established a comprehensive and integrated supplier risk-management process to support sustainable business growth and to capture opportunities and mitigate supply risk.

The following key principles define the framework using 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 risk-register for scalable assessments for materials and suppliers
- Monitoring and ranking supply risks, including risk-mitigation and implementation

Significant Changes to the Organization and Its Supply Chain

In September 2018 Lonza began construction on a new 4,600 m² manufacturing expansion at its Greenwood, SC (USA) facility to enhance production of specialty ingredients and dosage-form technologies. The expansion will open in 2019 and is expected to create 30 new jobs.

In September 2018 a strategic expansion of two new Ibex™ Solution offerings was announced – Ibex™ Design and Ibex™ Develop – to meet the evolving needs of biotech companies with antibody therapies. These new facilities together with Lonza's other Ibex™ offerings completes the product lifecycle management in one site. They will all be part of Lonza's 100,000 m² biopark under construction in Visp (CH).

In October 2018 Lonza acquired a controlling stake in Octane Biotech, with the right to acquire full ownership. The two companies have been collaborating since 2015 on the development of the Cocoon™ system, a patient-scale, closed and automated cell-therapy manufacturing system. Octane Biotech's employees at the current Kingston, ON (CA) site will continue to support development activities.

In November 2018 in order to strengthen its focus on the Healthcare Continuum® strategy, the company announced the divestment of its Water Care business to Platinum Equity, including operations at six manufacturing sites with approximately 1,200 employees. The carve-out and ownership transfer process is expected to be seamless to customers and closing of the sale is expected for the first quarter of 2019.

In November 2018 a new 1,000 m² Collaborative Innovation Center (CIC) in the Haifa Life Science Park was opened in Israel to act as a hub for partnerships to identify and accelerate new solutions for biopharma manufacturing.

For more detailed information, please visit our [website](#).

Precautionary Principles or Approach

Lonza applies the precautionary principle within the risk management framework. Risk management is a process applied from a shop-floor level up to the top risks for the whole company. Some elements are:

- 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

Site Integrity and Security is a highlighted theme in Lonza's *Enterprise Risk Management (ERM)*.

External Initiatives

UN Global Compact

Lonza Group Ltd joined the United Nations Global Compact (UNGC) in year 2009. Lonza is committed to aligning its businesses and operations with the universally accepted principles of sustainable development. This encompasses the areas of human and labor rights, anti-corruption and environmental sustainability. The company annually reports to the UNGC on progress in implementing the UN Global Compact's 10 Principles.

Membership of Associations

Lonza is a member of a number of associations in the biopharmaceutical, the chemical or the personal care industry sector, as well as in the business community in general. Associations may serve a variety of purposes such as exchanging best practices, aligning on public policy issues or collaborating on advocacy activities. The list below presents some of those associations:

- [*Science Industries*](#)
- [*SwissHoldings*](#)
- [*Cefic, the European Chemical Industry Council*](#)
- [*Swiss Biotech Association*](#)

Examples from Lonza Specialty Ingredients Segment:

- [*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*](#)

- [*Microbial Control Executive Council*](#)
- [*Western European Institute of Wood Preservation*](#)
- [*UK Timber Trade Federation*](#)
- [*Wood Protection Association*](#)
- [*American Coatings Association*](#)
- [*North American Center for Polyurethane Industry*](#)
- [*European association of flexible polyurethane foam blocks manufacturers*](#)
- [*Independent Lubricant Manufacturers Association*](#)
- [*American Cleaning Institute*](#)
- [*Personal Care Products Council*](#)
- [*Society of Cosmetic Chemists*](#)
- [*Nordic Soap, Perfume, Cosmetic and Detergent Association*](#)
- [*Cosmetic Executive Women*](#)
- [*Association of Non-Woven Fabrics Industry*](#)
- [*American Chemistry Council*](#)
- [*Western Plant Health Association*](#)
- [*Crop Life America*](#)

Examples from Lonza Pharma & Biotech 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*](#)

2. Strategy

Lonza strives to focus on innovative, value-enhancing products and services for its customers that help to deliver the medicines of tomorrow, today, to bring preventive healthcare solutions to consumers and to contribute to a safe living environment.

With its focus on customer value, quality, innovation, operational excellence and delivering on its promises, Lonza creates sustainable and attractive returns that benefit our shareholders. Further, sustainable growth enables Lonza to share the value created by being a reliable employer, an attractive long-term investment opportunity, a responsible taxpayer, and a good corporate citizen, helping communities in which we operate to flourish.

The Healthcare Continuum® provides a strategic framework for what we do and what we stand for, and it will contribute to an even-better recognition of Lonza's values and ambitions:

- Healthcare Continuum® as Lonza's strategy going forward for continued, sustainable growth and shareholder-value enhancement
- Lonza's three-pillar approach – Patient Healthcare, Consumer Preventive Healthcare and Consumer's Healthy Environment – allows for strengthening of synergies, leveraging of overlaps and improving the product portfolio
- Focus on organic growth opportunities and investments along the Healthcare Continuum®, as well as on operational and commercial excellence, optimizing enabling functions and consolidating the global network
- Continuing on the growth trajectory toward achieving the Mid-Term Guidance while already investing to grow beyond 2022

Key Impacts, Risks, and Opportunities

- Opportunities and activities

The Enterprise Risk Management (ERM) program is a critical platform for Lonza's global organization and business as it provides a mechanism and structure for prudently addressing risk responsibility and management in each and every organization. Lonza pursues a comprehensive risk management program as an essential element of sound corporate governance and is committed to continuously embedding risk management in its daily culture.

Lonza's ERM process is performed in four steps: Step 1: Identification (through risk workshops with Executive Committee members and their leadership teams), assessment and assignment of risks; Step 2: Consolidation, review and prioritization of risks; Step 3: Presentation of consolidated risk overview to the Executive Committee and Board of Directors; and Step 4: Follow-up on high-priority risks. Through this process, Lonza has identified and focuses on 12 high-level thematic risk categories.

Each identified risk category is assessed according to its probability of occurrence and its negative impact on the Group:

- The probability of occurrence is assessed for the period until year-end 2020, with a risk range from unlikely to highly probable.
- Any potential negative effect of a risk is assessed according to its impact on the annual Group's EBIT, the Group's reputation and the Group's operations.
- Risks have been identified for each segment and for the corporate functions, and they are tracked if there is a year-on-year increase or decrease. The risk scenarios identified in 2018 were presented to the Executive Committee and to the Board of Directors at their meetings in January 2019. Financial risk management is disclosed in note 29 of the Annual Report 2018.

Through the above-described process, a portfolio of Lonza-specific risk themes along with top areas of concern and high-level mitigation actions is created, and linked to activities of functional, business and operations teams. Year-on-year dynamics are captured by classifying risks themes as increasing, decreasing, new, and continuing. Currently these risk themes include: IT, macroeconomic situation, site security and integrity, market dynamics, organizational agility, etc. The risk portfolio is discussed with the Executive Committee and with the Board of Directors at the end of every year.

Some of the trends influencing the industry are considered opportunities rather than risks for healthcare and hygiene companies like Lonza, such as aging societies, growing populations and the increasing need for safe and abundant food and clean water.

3. Ethics and Integrity

Values, Principles, Standards, and Norms of Behavior

The values and principles of the updated Lonza Code of Conduct were approved by the Board of Directors in 2017. The Code of Conduct is available in 14 languages to all Lonza employees. Employees are required to take a Code of Conduct training every year which includes an integrity pledge certificate. Additionally, Lonza employees have to pass tests in online training courses, dealing with topics such as those addressed by the Code of Conduct, in particular anti-bribery, competition law, insider trading and conflicts of interest. All employees explicitly consent to uphold the values expressed in the Code of Conduct.

For the Lonza Code of Conduct, please consult:

Global Citizenship → Ethics & Compliance → [Code of Conduct](#)

Mechanisms for Advice and Concerns about Ethics

Lonza's compliance function – and in a supervisory role the Audit and Compliance Committee of the Board of Directors – provide guidance in recognizing, understanding and complying with the laws and ethical standards that govern Lonza's business activities. In addition, Lonza offers a “whistleblower” hotline (known as “Lonza Ethics Hotline”), which is operated by an external company. Allegations can be made on an anonymous basis if preferred and where allowable by law through the “whistleblower” hotline. Allegations, where warranted, are investigated by Lonza's Ethics & Compliance team and are ultimately reported to the Audit and Compliance Committee.

4. Governance

Governance Structure

In accordance with the law and the Lonza Articles of Association, the Board of Directors is the supreme governance body of the Group. The Board of Directors is responsible for the tasks assigned to it according to Article 18 of the Lonza Articles of Association and the Regulations Governing Internal Organization and Board Committees (Article 2.8). The Board of Directors defines the strategic direction and is responsible for the ultimate management of Lonza, as well as the supervision of the persons entrusted with Group management. It is responsible for issuing the necessary instructions especially with regard to compliance with the law, the Articles of Association, the regulations and directives. In compliance with law and the Articles of Association, the Board of Directors has – with the exception of non-delegable and inalienable duties – delegated the management of the company to the Executive Committee.

The members of the Executive Committee are appointed by the Board of Directors. Lonza's Executive Committee performs the duties assigned to it by the Board of Directors under the terms of the Regulations Governing Internal Organization and Board Committees. It is responsible for managing Lonza worldwide and for implementing policies and strategies as defined by the Board of Directors. The Executive Committee supports and coordinates the activities of the segments, the operational units, the corporate functions and the global business service organization. The Executive Committee is also responsible for leadership development.

Standing Board Committees in the following areas provide corporate governance guidance and support for the Board of Directors:

- Audit and Compliance Committee: This committee reviews the systems of internal control and financial reporting, as well as compliance with laws and regulations, and consults regularly with the Executive Committee, the Lonza Audit Services (Internal Audit) and the independent auditors to review the scope and results of their work and performance, according to the Audit and Compliance Committee Charter.
- Nomination and Compensation Committee: The Nomination and Compensation Committee is entrusted with the review and recommendation of compensation policies and programs, as well as the compensation of the members of the Executive Committee and key executives. Furthermore, this committee evaluates potential members of the Board of Directors.
- Innovation and Technology Committee: The Innovation and Technology Committee supports innovation and technology by monitoring potential technology breakthroughs, supporting management in driving innovation projects and providing and facilitating contacts, such as with academia and research institutions.

All sustainability-related matters are with the Chairperson of the Board. Sustainability includes environmental, social and governance-related matters of importance for Lonza and its stakeholders. A sustainability council headed by the Lonza Group General Counsel and Company Secretary manages as material identified topics and is responsible for the sustainability reporting.

Lonza's sustainability report is discussed by the Nomination and Compensation Committee (NCC) and Audit and Compliance Committee (ACC) in accordance with Lonza's financial reporting and ultimately approved by the Board of Directors.

Further details on Corporate Governance and the Group Structure can be found in Lonza's Corporate Governance Report (p. 307 ss. of Lonza's Annual Report 2018).

5. Stakeholder Engagement

List of Stakeholder Groups

The company has identified the relevant stakeholders which may have a vested interest in Lonza's performance and can influence the company directly or indirectly. The identified relevant stakeholder groups of Lonza are shown below.

We perceive intergovernmental bodies like the United Nations as Authorities and the respective agreements between states as a guideline for industry. The Sustainable Development Goals inspire our corporate goals and guide our approaches.

Identifying and Selecting Stakeholders

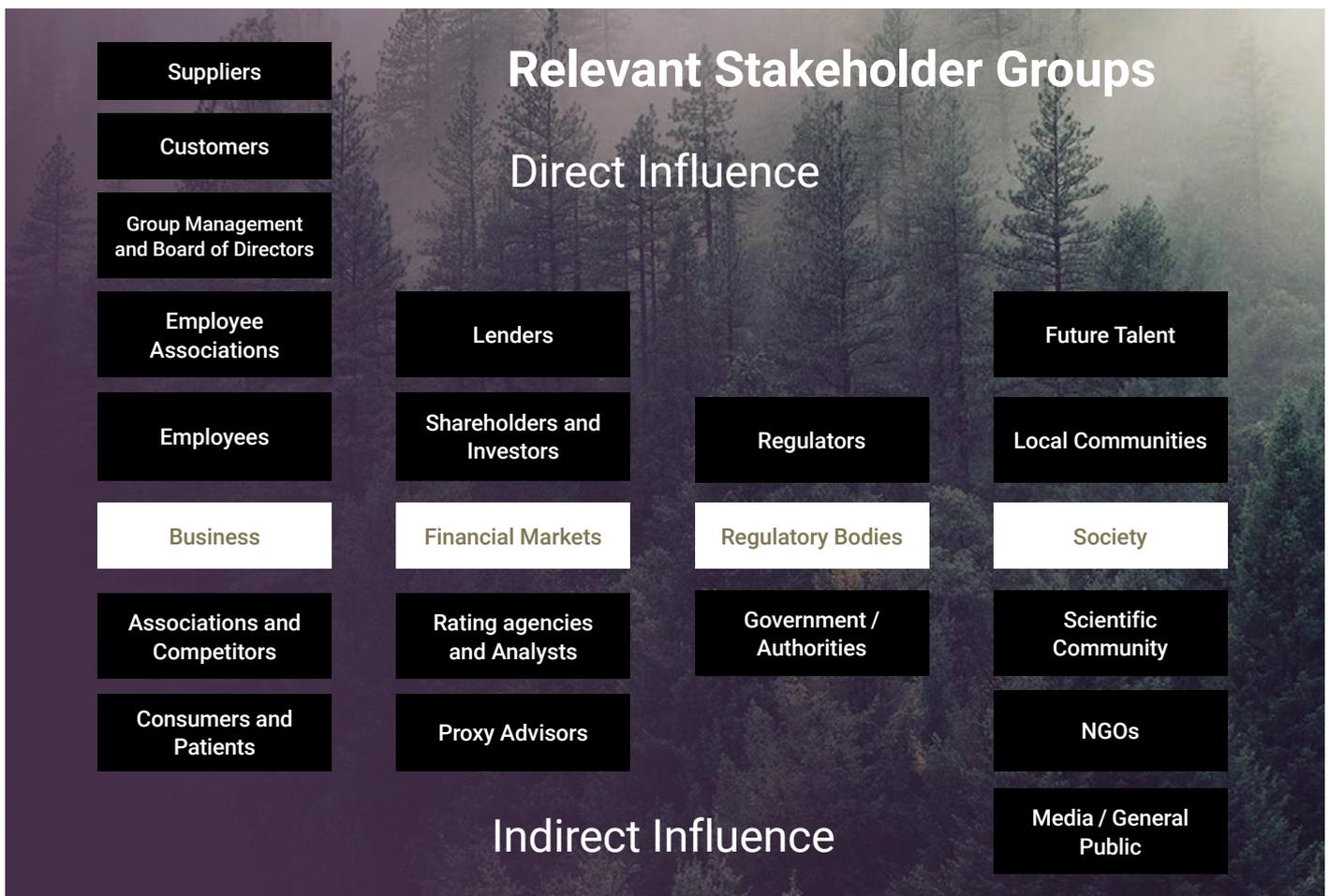
During the process of reporting transparently on sustainability, the main stakeholder groups were identified and categorized according to the potential impact of Lonza on the stakeholder and the stakeholder's ability to impact Lonza. Results were verified with different entities within Lonza (Management, Businesses, Human Resources, Legal, Investor Relations and Communications) and also external benchmarks.

The most relevant stakeholder groups (or their proxies) were involved in the materiality process in order to better understand the requirements and value these specific stakeholder groups perceive concerning Lonza's activities.

Approach to Stakeholder Engagement

Lonza entities regularly engage with their relevant stakeholders on a local level, though not in a formalized manner guided by any corporate requirements.

As part of the sustainability reporting process in 2018, Lonza specifically engaged with selected internal and external stakeholder groups directly or via internal proxies. The views of the following stakeholders were included in the materiality survey: employees, customers, academia, financial analysts, future talent, media and Lonza management and Board.



Key Topics and Concerns Raised

The materiality survey provided a mechanism to engage with relevant stakeholders and to capture their input on topics to be made transparent and 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 within Lonza.

Additional topics raised by stakeholders, which are not covered by the requirements of the Global Reporting Initiative, included “Green Building Design”, “Specific Manufacturing Footprint”, “Genetic Modifications”, “Contribution to Science and Technology”, “Future of Work”, “Sustainability reporting linked to CORE financials” and “Developing infrastructure to drive wider access to health/personal care”.

6. Reporting Practice

Defining Report Content and Topic Boundaries

In 2018 Lonza performed an analysis of material topics for sustainability reporting involving key stakeholders. The analysis focused on a broad range of potential material topics, reflecting Lonza’s operations, products, and services along the entire value chain. The materiality mapping was based on:

- The main sustainability topics raised by Lonza’s stakeholders
- The relevance for Lonza’s business
- Potential reputational impacts
- Potential of Lonza to influence or impact the topic
- Significance (importance) of the impact to Lonza.



The priority evaluation engaged the mentioned stakeholders in a survey to elucidate their perspective, whereas the priority for Lonza was assessed and confirmed with the Sustainability Council. Group Management and the Board of Directors also validated the materiality results.

Unless otherwise stated, the reporting boundaries for environmental data include the facilities for which Lonza has operational control, owns either the facility or significant relevant equipment, where data are usually readily available and representative. Facilities outside the reporting boundaries are smaller-sized leased facilities, laboratories, warehouses and office space with non-significant energy consumption or direct emission sources.

List of Material Topics

The process to define the content of the report identified the following 16 topics along the value chain as material for Lonza globally.



About the Reporting

The reporting period is the calendar year 2018. This is Lonza's first sustainability report following the principles of the Global Reporting Initiative. Lonza expects to continue to report on an annual basis.

Lonza's GRI Report 2018 has not been externally assured. This report has been prepared in accordance with the GRI Standards: Core option.

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Economic

Economic Performance
Anti-Corruption
Product Quality and Reliability
Customer Satisfaction



Environmental

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



Social

Occupational Health & Safety
Non-Discrimination
Protection of Human Rights
Customer Health & Safety
Socioeconomic Compliance
Talent Management
Employee Engagement

Economic

Economic Performance
Anti-Corruption
Product Quality and Reliability
Customer Satisfaction

Economic

Lonza has thrived for more than 120 years because the company has generated sustainable value for all of 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 continuously improved our financial performance as we capitalize on our role as a leading, integrated solutions provider along the Healthcare Continuum® for the pharma, consumer health and specialty chemicals markets.

Economic Performance

Lonza strives to focus on innovative, value-enhancing products and services for its customers that help to deliver the medicines of tomorrow, today, to bring preventive healthcare solutions to consumers and to contribute to a safe living environment.

With its focus on customer value, quality, innovation, operational excellence and delivering on its promises, Lonza creates sustainable and attractive returns that benefit our shareholders. Further, sustainable growth enables Lonza to share the value created by being a reliable employer, an attractive long-term investment opportunity, a responsible taxpayer, and a good corporate citizen, helping communities in which we operate to flourish.

Our Approach to Innovation

We recognize that keeping our pipelines full with innovative products and services that meet customers' emerging and unmet needs requires a disciplined innovation project management (IPM) approach.

The first principle of our IPM philosophy is that the project is customer focused and satisfies must-have needs. Ensuring that the project remains on target, our approach frequently requires collaboration with customers, marketplace experts and our own R&D specialists so that we can fine-tune the project to respond to any new customer concerns or ideas.

Once innovation projects are selected for further investment, dedicated cross-functional teams work to execute the projects, to track their progress against critical milestones and to otherwise manage and optimize the innovation portfolio in order to deliver the expected results and strategic goals. This vital teamwork is overseen on a regular basis by segment and business unit innovation leadership councils, which include key business portfolio managers and process owners, as well as technical subject matter experts from R&D, Operations and IT, following our Go-to-Market Excellence (G2ME) Innovation Management processes.

The Healthcare Continuum® as Lonza's Framework

We want to strengthen Lonza's leading role as a provider of valuable solutions for the global pharmaceutical and consumer healthcare markets, with a focus on patient health, consumer preventive health and a healthful consumer environment. The Healthcare Continuum® describes well which markets offer growth and development potential for Lonza, and it provides a common platform for our different technologies and capabilities



Lonza's CFO Rodolfo Savitzky in the Capital Markets Day 2018

The Healthcare Continuum® spans all of Lonza's Pharma & Biotech and Specialty Ingredients businesses and translates into Lonza's three-pillar strategy to serve customers through our Pharma & Biotech, Consumer Health and Consumer & Resources Protection offerings.

Accelerating growth within the Healthcare Continuum® drove the decision to acquire Capsugel, the leading provider of innovative dosage forms for the pharmaceutical and the consumer health and nutrition industries.

The Healthcare Continuum® provides a strategic framework for what we do and what we stand for, and it will contribute to an even-better recognition of Lonza's values and ambitions:

- Healthcare Continuum® as Lonza's strategy going forward for continued, sustainable growth and shareholder-value enhancement
- Lonza's three-pillar approach – Patient Healthcare, Consumer Preventive Healthcare and Consumer's Healthy Environment – allows for strengthening of synergies, leveraging of overlaps and improving the product portfolio
- Focus on organic growth opportunities and investments along the Healthcare Continuum®, as well as on operational and commercial excellence, optimizing enabling functions and consolidating the global network
- Continuing on the growth trajectory toward achieving the Mid-Term Guidance while already investing to grow beyond 2022

Lonza expects to continue its sustainable growth while optimizing its business and product portfolios and making targeted investments to grow along the Healthcare Continuum® toward and beyond 2022.

To reflect the divestment of its former Water Care business unit and to emphasize Lonza's focus on growth along the Healthcare Continuum® Lonza provided an adjusted Mid-Term Guidance¹ 2022 in March 2019. The adjustment consists of excluding the Water Care Mid-Term Guidance from the Lonza Group financial projections prepared in 2017. The Water Care Mid-Term Guidance was *disclosed* at Lonza's Capital Markets Day 2018.

In addition, Lonza is reflecting not only the Water Care divestment but also the latest *strategy development*. The Mid-Term Guidance 2022 was first issued in 2017. The adjusted Mid-Term Guidance demonstrates our focus on growing our businesses along the Healthcare Continuum® while continuing to aim for operational excellence, productivity improvements and attractive margins.

The adjusted Mid-Term Guidance for Lonza's continuing operations (excluding the Water Care business unit) is the following:

- Sales CHF 7.1 billion
- CORE EBITDA margin 30.5%
- CORE RONOA 35 %
- Double-digit ROIC

To grow sustainably, Lonza focuses on the following key internal initiatives:

- Excelling in quality, safety and sustainability – Vision Zero
- Improving efficiency and productivity through automation and digitalization
- Consolidating its global network of assets and expanding its footprint outside North America and Europe
- Constantly innovating and investing in targeted research and development initiatives

In terms of strategic direction, going forward, Lonza will focus on maximizing the benefits from Capsugel's full integration into our businesses – particularly in the area of small molecules and consumer health and nutrition; we will also be focusing on commercial and operational excellence across all businesses; and we are innovating and otherwise preparing for the next growth cycle in biologics. As always, we will refine our strategy to respond to evolving marketplace needs and identified growth opportunities.

The Board of Directors monitors the business and financial performance against agreed goals and objectives, ensures that appropriate controls and systems are in place to manage risks and is committed to maintaining the highest standards of integrity and transparency in its governance of Lonza.

¹ Lonza's Mid-Term Guidance for the Group is based on the present business composition, the present macro-economic environment, current visibility and constant exchange rates.

Please consult the [Lonza Corporate Governance Report](#) within our Annual Report 2018 for information regarding overall company management and oversight.

Direct Economic Value Generated and Distributed

Lonza strives to create value for all of its stakeholders – its shareholders, customers, employees, suppliers, communities and others. The company distributes its derived economic value to various stakeholders through a variety of streams. This includes governments through taxes, employees through compensation and benefits, shareholders through dividends, suppliers and service providers through raw material and service prices, and society through taxes and local community projects. Part of the value earned is retained in the company for further growth through innovation, targeted investments, or bolt-on acquisitions.

Please consult [Statement of Value Added from Annual Report 2018](#).

Gross and Net Value Added

(results represent total Lonza Group, including Water Care).

Item	Million CHF
Total income	6,233
Gross value added (deduction of services and goods bought from third parties)	3,172
Net value added (deduction of depreciation, amortization, and impairment)	2,482

Net Value Added Flows to the Various Stakeholders and to Lonza

Item	Million CHF	%
To employees	1,707	68.8
To the company	354	14.3
To shareholders	206	8.3
To public authorities, taxes	169	6.8
To lenders	43	1.7
To non-controlling interest	3	0.1
Total	2,482	100

Anti-Corruption

It is Lonza's policy to conduct all its business in an honest, fair and ethical manner. Lonza takes a zero-tolerance approach to bribery and corruption and is committed to acting professionally, fairly and with integrity at all times and implementing and enforcing effective systems to help prevent bribery and corruption. Lonza will uphold all applicable anti-bribery and corruption laws.

Lonza has a dedicated Ethics and Compliance team that is charged with monitoring and promoting compliance with anti-bribery and anti-corruption laws. In addition, Lonza is considering engaging in periodic global trend analyses to identify areas of anti-corruption risk and implement mitigation steps as necessary, as well as implementing a new electronic interface for third-party due diligence.

Lonza's Ethics Hotline provides a mechanism for employees and others to report potential violations of the Code of Conduct, any Lonza 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, to include termination of employment.

The company considers the above described management approach to be effective.

Operations Assessed for Risks Related to Corruption

Lonza is considering engaging in yearly global trend analyses to identify business areas and geographies of anti-corruption risk and implement mitigation steps as necessary.

A survey of our sites regarding anti-corruption precautions has been initiated in 2018 with results being communicated after analysis.

Communication and Training on Anti-Corruption Policies and Procedures

All employees have access via the company's intranet site to Lonza's Anti-Corruption and Anti-Bribery Policy. New hires are trained via an online training module on anti-corruption and anti-bribery. Anti-corruption and anti-bribery is also covered in Lonza's Code of Conduct and in the annual Code of Conduct training required of all employees.

Suppliers that enter into Lonza's standard supply agreement agree to adhere to Lonza's Supplier Code of Conduct, which sets forth commitments to working against corruption and bribery. Lonza's Supplier Code of Conduct applies to both its suppliers and to any subcontractors or other third parties that a supplier may engage in the performance of its contractual obligations. Currently, suppliers are instructed to implement internal measuring procedures, tools, and indicators required to guarantee adherence to the Lonza Supplier Code of Conduct principles. Suppliers are encouraged to report any violations by sending an e-mail to compliancegroup@lonza.com or by using [Lonza's Ethics Hotline](#).

Product Quality and Reliability

Lonza is committed to delivering:

- High-quality, safe and effective products and services that meet or exceed customer expectations.
- Compliance with current applicable regulatory requirements and standards
- Continuous improvement of our Quality Management System, products and services.

To achieve these goals, Lonza operates a quality management system which complies with internal policies, as well as with national and international standards (e.g. ISO) and regulations (e.g. Good Manufacturing Practice Regulations – GMP, Prior Informed Consent Regulation – PIC, Hazard Analysis and Critical Control Point – HACCP). The fundamental elements of the quality system are continuously undergoing improvement.

In 2018 Lonza completed the implementation of a global Quality organization covering all aspects of Quality Control and Quality Assurance. Having such a centralized Quality organization is fundamental to assure a consistent approach to Quality for the entire company. In a next step, Lonza is also enhancing its Quality Management System in a way that core processes are further standardized at a Corporate level and applicable for all sites and businesses.

Regulatory Inspections

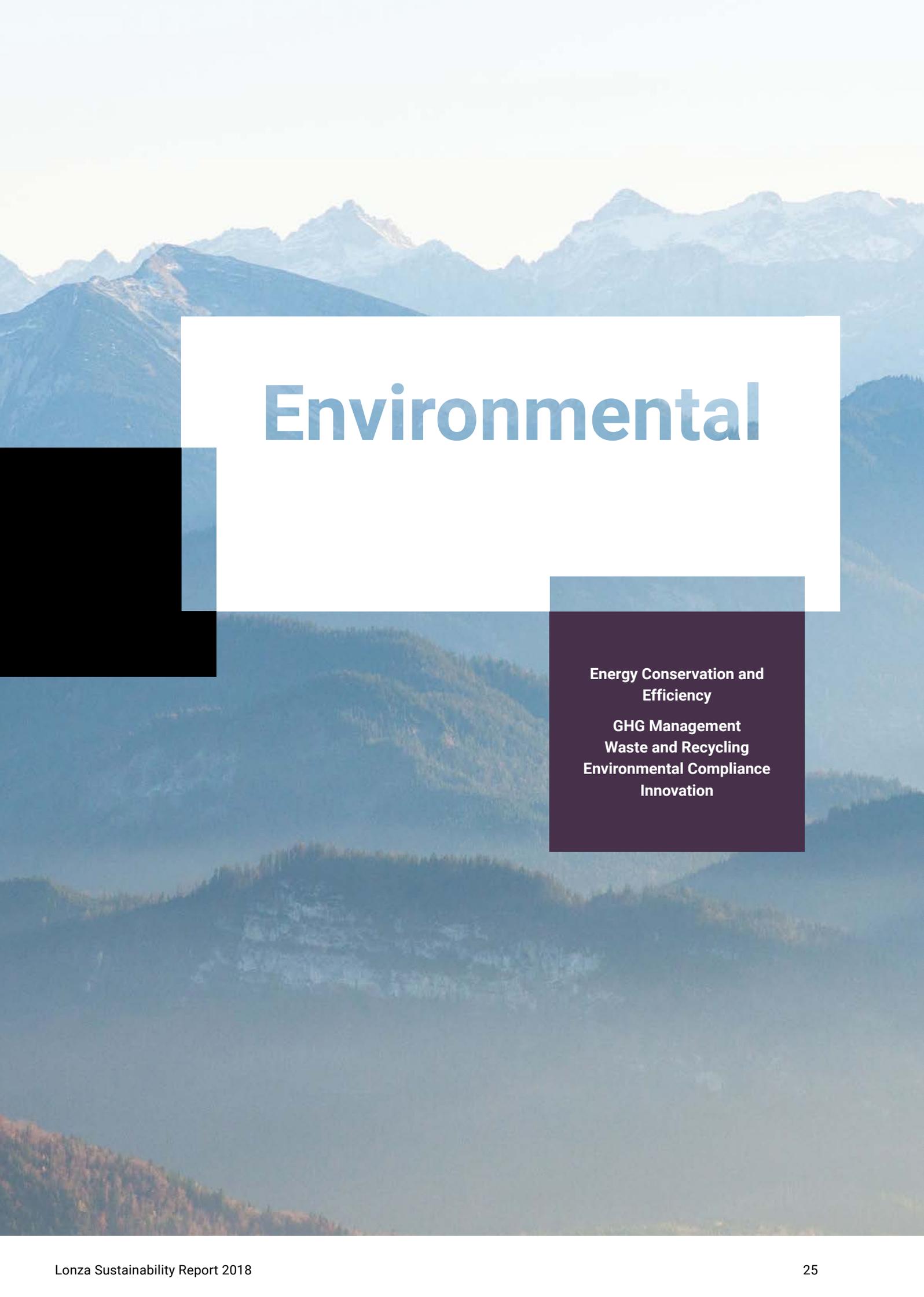
The vast majority of Lonza’s businesses are highly regulated. Lonza is inspected by various Regulatory Authorities, Certification Bodies, and customers on a regular basis. Any findings during these inspections are addressed and used as input for continuous improvement.

Customer Satisfaction

We want to ensure that our customers get the best of the products and services we offer, and guarantee 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 done across all regions and businesses, and may include current and potential customers. Depending on the business, customer surveys are performed annually, or through customer feedback initiatives that have included regional phone, in-person and online surveys, using different tools and platforms. Surveys capture key metrics across customer satisfaction such as quality, service, on time delivery, lead times, communication and project governances, reliability, value delivery on short- and middle-term horizon etc., and comply with privacy regulations.





Environmental

**Energy Conservation and
Efficiency**

GHG Management

Waste and Recycling

Environmental Compliance

Innovation

Environmental

At Lonza we create value for our customers and society by innovating science-based solutions along the Healthcare Continuum® that help save lives, extend lives and improve the overall quality of life.

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

In our operations, we engage and empower our employees and teams to work towards our Vision of Zero – meaning zero workplace injuries, zero manufacturing process incidents, zero emissions beyond regulatory limits, and zero transportation incidents. In the workplace, we serve as our brothers' and sisters' keepers when it comes to safety and identifying and eliminating potential hazards.

This commitment to sustainability is a core part of the ethical principles that drive us.

One of Lonza's long-term goals is to improve our sustainability performance and reduce our environmental footprint. To achieve these aspirations, Lonza has set specific environmental targets based on the reported values for full year 2015, until 2020. The targets are efficiency gains from energy, CO₂ equivalents and water of 2% each year per million CHF sales.

The targets are based on million CHF sales because of our very diverse and ever-changing 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. This diversity can only be integrated with a value-related denominator.

**2015 – 2020 Targets for Energy, Water, CO₂:
Minus 2% per Annum / Mio. CHF**

The safety and sustainability targets are therefore intensity values, so that we are able to carry them forward even in the case of major acquisitions or divestitures. Therefore, we have included the Capsugel data without changing the baseline or the target within this business year until year end. In November the company communicated the divestiture of the Water Care business, expected to be concluded during the first quarter of 2019, which will again change the manufacturing and product portfolio.

The safety and sustainability data for Capsugel are fully integrated in the Lonza reporting system, starting from January 2018. Therefore we will use 2018 as the baseline for the targets in the coming years.

The Lonza Group has reported relevant data within the CDP framework (former Carbon Disclosure Project) since 2007. The Group also maintains 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).



Greenwood's Commitment to the Environment & Local Community

The site in South Carolina [US] received Wildlife and Industry Together (W.A.I.T.) Certification, awarded to corporate landowners who integrate wildlife habitat needs into corporate land management decisions. Additionally, Greenwood implemented a sustainability program that drastically reduced the amount of waste being sent to landfill. This earned the site the LPB's Dedicated to Excellence (D2E) Green Award.

Going Forward

It has been our commitment and strategy all along the last decade to reduce our energy, water and waste intensity, as well as and our rate of accidents and incidents. We were able to achieve considerable improvements, based on a successful implementation of the Healthcare Continuum® model, which includes changes in footprint, product portfolio and revenue.

We have reviewed our strategy and policy for the next years, as laid out in this report, 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 and pursuing efforts to limit it to 1.5°C.

With our energy and GHG targets, we aim to reduce our CO₂-eq emissions intensity to below 50% in 2030 (baseline year 2010). For waste we aim 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.

The Vision Zero remains unchanged as our aspiration to ensure the safety of our people and our factories and to operate way below the permitted emission limits. The programs around Vision Zero will be developed site by site and reflect the type and impact of the operations within multi-year roadmaps.

We base the new goals on the year 2018 and its business composition following a full year after the Capsugel integration, as well as the carve-out and divestiture of the Water Care business.

Our Achievements 2010 to 2018 and Targets 2030

The table below represents the safety and sustainability indicators comparing 2010 and 2018.

All values given for environmental parameters are in relation to sales values in million CHF. The full-year figures are reflecting the total company in 2018, while the targets for 2030 are based on the continued operations after the divestiture of the Water Care business.

For environmental and process safety incidents in our factories, the company has reached a rate of 0.07 and 0.09 respectively, based on 200'000 hours worked and reduced both by around 50 % over 2018 compared to 2017. A comparison to earlier years is not available. For accidents we will establish a new target combining a pre-accident with an outcome metric with the aim to manage the LTIFR.

For the required improvement toward the long-term target and the annual milestones, we have developed the concept of a three-year rolling safety and sustainability roadmap within our manufacturing sites. There the management teams develop a plan to drive the site in the direction of compliance, efficiency and safety, as targeted in the following summary. Local goals are added as per the materiality analysis in the sites, e.g. for water consumption and air impurities.

Indicator	FY 2010	FY 2018	Change in %	FY 2018 cont. ops.	Targets 2030
Energy (GJ / Mio. CHF)	3,136	2,173	-31	2,231	1,695
CO ₂ -eq (scope 1&2 mt / Mio. CHF)	234	152	-35	151	97
Water (m ³ / Mio. CHF) *	2,100	1,424	-32	1364	local
Waste (mt / Mio. CHF) †	55	24	-56	25	19
Accidents (LTIFR) **	1.50	1.29	-14	1.19	New 2019
Air Impurities (kg / Mio. CHF)***	377	130	-65	128	local

†) Waste 2018: without construction and demolition waste

*) Industrial water only

***) LTIFR: Lost time injury frequency rate, based on 1 million hours worked; the number fluctuates over the years, so the % reduction only reflect the direct comparison 2010 to 2018

***) VOC (Volatile Organic Compounds), NOx (Nitrous Oxides), SO₂ (Sulphur Dioxide), PM (Particulate Matter); Target is to be well below permitted limits, which can be subject to frequent change

New Long-Term Targets, Total Company Until 2030 – Baseline 2018, Per 1 Million CHF Sales

Zero lost time injuries (aspiration)

24% energy reduction

36% CO₂ reduction, e.g. through more renewable electricity

24% waste reduction

These Targets Correspond to Per-Annum Milestones, Per 1 Million CHF Sales

Corrective actions and accidents (defined by target)

2% energy reduction

3% CO₂ reduction, more renewable electricity

2% waste reduction

Energy

Lonza is engaged in implementing energy-efficient solutions within the manufacturing facilities. Energy efficiency is clearly connected to greenhouse gas emission reduction and is a lever for manufacturing cost reduction as well. The main energy sources for Lonza are natural gas, electricity and the thermal processing of captive waste in Visp, CH (steam production, co-generation of heat and power).

Energy consumed for manufacturing processes is by far the largest contributor to our climate-relevant emissions. We therefore concentrate efforts regarding greenhouse gas (GHG) emissions on energy-efficiency measures at our manufacturing sites.

Lonza's medium-term target plan for 2015–2020 included a 10% reduction of the energy intensity (per revenue) rate, with the baseline being 2015, which was overachieved.

With the aim to reduce GHG emissions resulting from energy consumption along the Paris Agreement timeline of 50% of the 2010 baseline in 2030, we updated the duration of this goal to 2030, with 2018 as the new baseline.

Lonza is committed to improving the energy efficiency of its operations and aspires to increasingly integrate renewable electricity in its supply planning. We consider accelerating the adoption of renewable energy sources for electricity, in order 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. The capital expenditure approval process, for example, entails an assessment of the energy consumption and the efficiency measures of the project.

Energy efficiency of Lonza's sites is the responsibility of site and operations management reporting to the operations head of the segments. At the local level, operations, engineering and environment, health and safety (EHS) departments are responsible for devising local roadmaps to help reach Lonza's overall targets with regard to energy efficiency, and for setting and achieving local targets accordingly. Usually the mentioned departments work out improvement plans in EHS-councils on a site level.



Haryana Onsite Energy Production

In 2018 the site in Haryana (IN) installed photovoltaic panels, avoiding the emission of around 240 tons CO₂ per year and bringing estimated annualized savings of 31,000 CHF.

Since 2018 Lonza is working with a partner to analyze the data for energy consumption, contracting, supply and demand to centralize the database for all sites into one platform. This will give the company a better understanding to further leverage energy efficiency and cost management.

Lonza measures its energy use on a regular basis. Beginning in 2018, energy use is reported quarterly into a globally deployed software tool and ultimately analyzed by Corporate Environment, Health and Safety (EHS). This vital information forms the basis for updated reduction goals, possible capital expenditures to achieve major improvements in energy efficiency, and other considerations. Some sites have adopted an energy management system according to the ISO 50 000 framework, which encompasses an energy team, policy, target setting and a rolling action plan.



Cohasset (US) Wood Fired Steam Boiler

Reducing fossil fuels consumption, the site invested in a wood-fired steam boiler, replacing natural gas with waste wood to generate steam. This includes an integrated system to minimize air emissions and has an 8-year payback time.

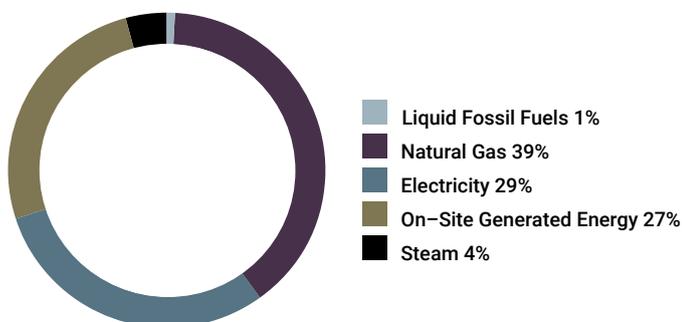
Energy Consumption Within the Organization

Energy is a necessary input for the various manufacturing processes and vital for utility generation such as steam, heating, cooling, ventilation, compressed air motors and pumps, as well as air conditioning of buildings, refrigeration, truck transport and other. The major energy source is natural gas, followed by electricity and energy generated on site, mainly through waste incineration (in Visp, CH).

Lonza 2018 Total Energy Consumption

Total Energy Consumption [GJ]	
Diesel	4,760
Fuel Oil	154,376
Gasoline	5,811
LPG	12,072
Natural Gas	5,099,068
Purchased Electricity (non-renewable)	3,291,014
Purchased Electricity (renewable)	561,637
Renewable Electricity (on-site)	1,145
Self-generated Energy (Waste, Processes)	3,479,672
Steam	550,865
Total	13,160,420

Lonza 2018 Energy Consumption by Source



Energy Intensity

Energy Intensity 2018:
Total Energy Consumption Within Lonza / Revenue
2,172 GJ / Mio. CHF

The target for 2020 of 2300 GJ/Mio. CHF had already been achieved by the end of 2017. Better yet, the intensity values continue to decrease above the 2% per annum rate set for the medium-term. We will keep the energy efficiency target at 2% per annum but will enhance the GHG reduction target to 3% per annum based on the year 2018.

This decrease in consumption has two reasons: Firstly, Lonza is successfully transforming its product mix from chemical synthesis to more biological processes that encompass biotechnological processes using bacterial and mammalian systems. The related manufacturing processes are less energy intensive than chemical manufacturing. Secondly, Lonza is investing heavily into modern energy-efficient production technology and we have recently acquired major companies whose products and manufacturing technologies are energy efficient.

The acquisition and integration of Capsugel and the consolidation into total Lonza numbers of its energy consumption in 2018 is a good case in point. It accelerated this positive trend: compared to 2017, the energy intensity decreased 4% in 2018.

Lonza Energy Consumption Intensity (GJ / Mio. CHF)



Note: Year 2017 values exclude values for the months 7-12 / 2017 for Capsugel.

Water

Water is used for a variety of purposes within Lonza: heat transfer and cooling medium, steam generation, washing, cleaning and maintenance, as a product ingredient, and for sanitization.

Although water is not of very high priority from the materiality assessment, it is a precious, vital and burdened natural resource that must be actively managed, specifically in water-scarce areas. Therefore, water savings were also included in the 2015–2020 intensity reduction goals.

Access to high quality potable water is an important factor to ensure the quality of our products. Especially in regions where freshwater is scarce, Lonza may be exposed to water shortages or restrictions, decline in water quality, water price volatility, and reputational issues. To mitigate these water-related risks, sites are tracking their water balance and introducing water-management programs and reduction targets. Sites in water-stressed regions and geographies, e.g. India and Mexico, have to incorporate respective measures to optimize water consumption and management into their sustainability roadmaps.

Lonza is committed to reducing the amount of water used by its own operations. Each site is responsible for managing and optimizing its water balance. The company specifically measures the consumption of industrial water, which is used for numerous purposes as described before. Water from this part of the water balance is altered and must therefore be monitored. Non-contact cooling water is not altered as the manufacturing processes only use the thermal properties of the medium.



Being located in a water scarce region, the Haryana (IN) site continuously implements initiatives on water conservation and groundwater recharge. Rainwater harvesting is done within the premises. Additionally nearby village ponds were adapted to recharge the groundwater through natural percolation. Lonza participates in yearly cleaning and maintenance activities, as well as regular meetings and cooperation with the local community.

The goal of industrial water intensity of 1,720 m³/Mio. CHF was prematurely achieved at the end of 2017. From 2019 onwards we will include water targets regarding quantity and wastewater quality into the site targets and roadmaps.

Lonza measures its water use on a regular basis, and data are reported quarterly to Corporate EHS via a software tool. Results are followed up and management approaches adapted accordingly.

Within 2018 the reporting guideline was updated to properly manage the water balance at Lonza sites, as in the past water use was being tracked but not water sources and fate. Sites are now required to report on the water source, water use and water output indicators, to better understand and manage this important resource.



The site's old reverse osmosis installation was replaced by a brand new ion exchange process. This has generated:

Water savings = 20 m³ per day (30%)

Cost savings = 55 kCHF per year

Water Withdrawal by Source

Water Withdrawal by Source	
Water Source – Groundwater Wells [thousand m ³]	7,586
Water Source – Public Supply [thousand m ³]	7,425
Water Source – Surface Water Bodies [thousand m ³]	133,694
Total [thousand m³]	148,705

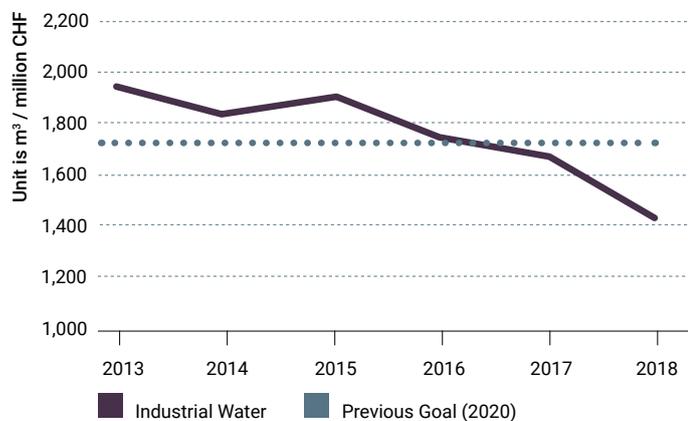
Water withdrawal concerns the total water used by Lonza globally. More than 90% is used as non-contact cooling water (140,054 thousand m³).

Comparison with previous years is not possible, as water source indicators were not recorded. However, data for water use indicator “Industrial Water” (volume of water consumed in manufacturing operations, excluding non-contact cooling water) is available and its intensity related to revenue has been steadily decreasing.

The acquisition of Capsugel and integration of its water consumption in 2018 carries on with this trend: compared to 2017, the industrial water consumption intensity decreased 14% (without 2017 Capsugel mid-year data).

Industrial Water Intensity 2018:
Total Industrial Water Consumption Within Lonza / Revenue
1,422 m³ / Mio. CHF

Lonza Industrial Water Consumption Intensity (m³ / Mio. CHF)



Note: Year 2017 values exclude values for the months 7–12 / 2017 for Capsugel.

Emissions

Based on scientific evidence, greenhouse gas emissions (GHG)– largely by the combustion of fossil fuels as energy sources – contribute to global warming. This affects the human population and all businesses need to address this as a material issue.

In addition to GHG, energy generation and industrial processes result in other emissions to air, such as particulate matter (PM), nitrogen oxides (NO_x), sulphur dioxide (SO₂) and volatile organic compounds (VOC). Lonza’s goal is to continuously monitor, control and reduce such emissions, to comply with statutory requirements and to reduce them beyond regulatory requirements.

At Lonza GHG emissions result mainly from combustion processes for energy generation (including incineration processes of organic waste) and chemically generated CO₂; therefore, Lonza can manage part of the GHG emissions by managing energy consumption and energy sources. To decouple GHG emissions from energy consumption, we strive to increase the amount of renewable electricity (wind, hydro, solar, etc.) in our energy consumption. Together with energy efficiency, this increase in renewables will allow us to achieve a 50% GHG reduction by 2030 (baseline 2010). This reduction is substantially more ambitious than the Paris Agreement targets for the states. For instance, Switzerland has committed to 50% GHG intensity reduction (measured by GHG emissions per Gross Domestic Product) by 2030 with 1990 as baseline year. Chemical processes and reactions can also generate GHG emissions, e.g. fugitive CO₂, which are tracked and reported by the sites.

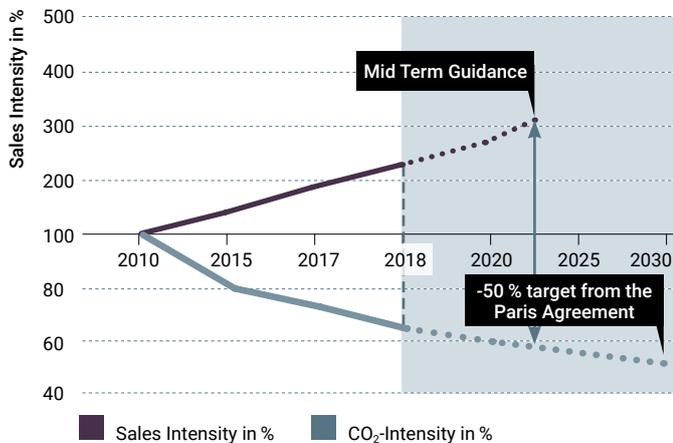
The current medium-term environmental targets foresaw a 2% reduction in the emission intensity of GHG and of air impurities (VOC, NO_x, SO₂ and PM). These targets have been also prematurely met.

As explained Lonza has now defined a new CO₂ reduction goal based on the aspirations of the agreement from the Conference of Parties COP21 in Paris (Paris Agreement) to keep the increase in global average temperature to well below 2°C above pre-industrial levels.

GHG emissions are mainly a result of combustion processes to generate heat and power for our manufacturing processes and facilities. Therefore, Lonza manages GHG emissions in parallel with energy consumption.

2018 – 2030 Target for CO₂:
Minus 3% per Annum / Total Revenue
50% Reduction of our CO₂ Footprint Intensity
by 2030 (Baseline 2010)

Sales vs. CO₂ Emissions in % of 2010 (=100)



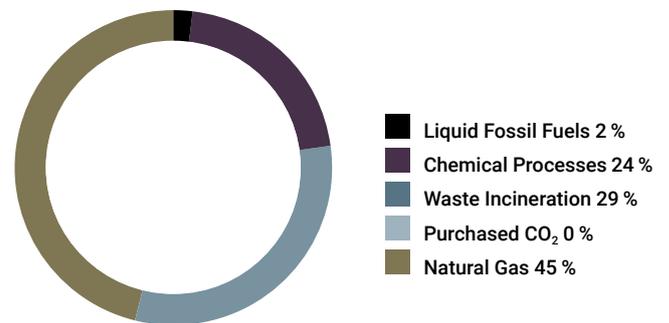
Lonza measures its GHG emissions use on a regular basis. Energy use and CO₂ emissions are reported quarterly to Corporate EHS via a software tool. Other air emissions continue to be reported on a yearly basis. Results are followed up and management approaches adapted accordingly.

Direct (Scope 1) GHG Emissions

Scope 1 entails 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 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 serves two purposes: final waste treatment and energy production.

Total Scope 1 Emissions 2018:
574 Thousand Metric Tons CO₂-eq

Lonza 2018 Scope 1 Emission Sources



Energy Indirect (Scope 2) GHG Emissions

Scope 2 entails GHG emissions from the generation of purchased electricity and steam, which are calculated based on regional specific standard emission factors using IPCC AR4 and US EPA Climate Leaders. In most sites the energy consumption is metered directly; in multi-tenant facilities the consumption is derived by the approximated Lonza consumption.

Lonza 2018 Scope 2 Emissions

Total Scope 2 emissions (thousand metric tons CO ₂ -eq) 2018	348.0
Steam	31.5
Electricity	316.5

Other indirect (Scope 3) GHG emissions

Scope 3 entails indirect GHG emissions that occur in the value chain, including upstream and downstream emissions. In 2018 the company began evaluating the carbon emissions from travel. Extrapolations of available data show a footprint of 33 T mt of CO₂ for business travel for the entire company in 2018. This figure is derived from samples of approximately 70% of total travel contracts extrapolated to 100%. The methodologies used by the travel providers include the GHG Protocol or UK DEFRA.

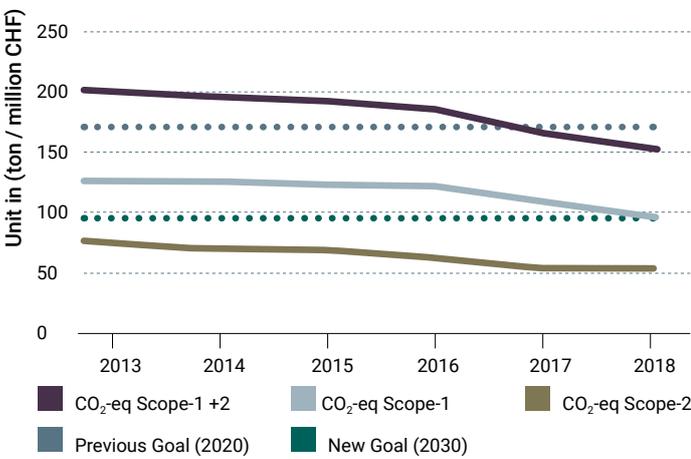
GHG Emissions Intensity

The carbon emission intensity values continue to decrease by more than the 2% per annum rate and are below the 2020 target.¹

The acquisition of Capsugel and integration of its GHG emissions in 2018 accelerates this trend: compared to 2017, the carbon emissions intensity decreased 8%.

Carbon Emissions Intensity 2018:
Total GHG Emissions Within Lonza / Revenue
152 tons CO₂-eq / Mio. CHF

Lonza Greenhouse Gas Emissions Intensity



Note: Year 2017 values exclude values for the months 7–12/2017 for Capsugel.

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, NOx are also important to Lonza’s operations and for compliance with local regulations. These emissions are also included in the 2015–2020 intensity reduction goals as “Air Impurities” (VOC – Volatile Organic Compounds, NOx – Nitrous Oxides, SO₂ – Sulphur Dioxide, PM – Particulate Matter).

Lonza 2018 Total Air Impurities

Air Impurities in Metric Tons	
VOC	213.8
NOx	477.5
SO ₂	36.4
Particulate matter	58.5
Total	786.2

¹ The GHG emissions intensity values for 2015–2017 and the 2020 goal have been restated due to data entry inaccuracies in previous years.

The 2020 goal of 173 kg per million CHF was achieved in 2017, and the intensity values continue to decrease by more than the 2% per annum the medium-term goals foresaw. Continuous investment, technical improvements at emission points and emission control equipment contribute to the reductions.

Air Impurities Intensity 2018:
Total Air Impurities Emissions of Lonza / Revenue
130 kg / Mio. CHF

The acquisition of Capsugel and integration of its air emissions in 2018 accelerates this trend: compared to 2017, the air impurities intensity decreased 14%.

From 2019 onwards we will include air impurities into the site roadmaps, where this parameter is material.



Visp 2030 EHS – “Vision Zero” For Air Emissions

The Visp (CH) site is a leading high-tech manufacturing, service and R&T hub. The site has ambitious goals, including on air emission reduction for PM, NOx and VOC. The main actions and achievements in 2018 were:

- Shut-down fertilizer production
 → reduction of 1.7 tons Particulate Matter per year
- Shut-down nitric acid plant and installing new NH₃-burner at niacin plant
 → less smog and reduction of 47 tons NOx per year

Lonza Air Impurities Intensity



Note: Year 2017 values exclude values for the months 7–12/2017 for Capsugel.

Effluents and Waste

Lonza as a chemical and biotechnology company strives to transparently inform stakeholders and local communities about how we handle 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 Lonza manufacturing site maintains a waste-disposal concept tailored to its waste streams for an efficient, environmentally sound treatment and disposal of wastes. All sites are dedicated to Lonza's waste reduction principles as set out in the Group's EHS Policy:



At some locations, e.g. Visp (CH), Lonza operates its own waste and wastewater treatment. Lonza carefully selects its partners for waste transportation and treatment based on performance and capabilities in Environment, Health and Safety (EHS).

Lonza works to ensure that the treatment and disposal of all its waste materials 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.



Colmar Capsule Composting

Since 2006 the Colmar (FR) site has been segregating its organic waste (scrap of capsules and polymers) and sending it to a nearby composting company. There this organic waste is mixed with other vegetal waste to produce fertilizer. This fertilizer is sold to farmers and local people. In 2018 around 80% of its total non-hazardous waste was recycled.

Lonza seeks to reduce waste resulting from production, offices and laboratories, and to comply with water discharge requirements.

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

Effluents and waste efficiency of Lonza's sites are the responsibility of the site management and operations management reporting to the operations head of the segment. The operations or site manager is responsible for helping to promote and actively implement Lonza's waste reduction principles, for setting and achieving local targets accordingly and for compliance with local requirements for effluents.



Porriño (ES) Hazardous Waste Reduction

The site's hazardous waste reduction program included the involvement and training of all employees and measures like partnering with suppliers to turn waste into by-products or declassification of waste historically treated as hazardous by implementing simple measures (rinse, leverage total consumption, re-use).

In the implementation year, the program led to 60% less hazardous waste vs previous year, also meaning a 50% operational costs reduction.

Lonza measures its waste and effluent generation on a regular basis. Since 2018 waste and wastewater are reported quarterly to Corporate EHS via a software tool. Results are followed up and management approaches adapted accordingly. In the coming years, Lonza is considering managing waste and water usage through site sustainability roadmaps. This will help site management to devise an action plan to actively shape the consumption of water and materials.

Remediation

Lonza's 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 many decades ago, 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 in the 1930–1970s before the construction of the wastewater treatment plant.

Since 2013 Lonza has worked closely with the local communities in carrying out and financing all required technical investigations in residential areas and agricultural zones between Visp and Niedergesteln (CH). By the end of 2018, 63 parcels of land in Visp and Raron (CH) were remediated, and the work will pursue in 2019. Lonza maintains a [public website](#) (in German) on the remediation activities and progress.

The Gamsenried disposal site in Gamsen (CH) is owned and managed by Lonza and consists of an old and decommissioned area and a new and fully permitted disposal site used for waste incineration slag from the Visp site and the Cantonal waste incineration plant. The older decommissioned section was primarily used for lime hydrate and gypsum sludge and has been analyzed in detail for mercury and other contaminants. The management concept for this section includes ground water monitoring and treatment. Additionally air measurements were performed in collaboration with the University of Basel which showed that mercury levels in the air are below the limit values.

Water Discharge by Quality and Destination

In many Lonza sites, industrial water is collected in tanks or reservoirs and treated in own or external wastewater treatment facilities. If collected and treated on site, water is tested as per local permits before discharge into the sewage system or to a surface water body.

Local Lonza companies hold permits for water treatment and for the relevant wastewater discharge parameters, like quantity and chemical limit values. However, due to the very diverse nature of requirements, Lonza does 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 locally depending on local regulation and the type of the operations.

Lonza 2018 Water Discharge Quantities

Total Water Discharged [thousand m ³]	147,554
Water Discharge to Sewer [thousand m ³]	7,010
Water to Water Bodies [thousand m ³]	140,545

Waste by Type and Disposal Method

In 2018 the corporate reporting guideline was updated to specify definitions of waste and boundaries. Construction, demolition, remediation and excavation waste are excluded from the sustainability reporting framework; only production related waste is tracked on corporate level.

The energy from on-site incineration of residues and waste gases, which Lonza performs in Visp, Switzerland, is used for heat energy generation in order to conserve resources.

In total Lonza generated around 100 thousand metric tons of waste which the company monitors by type and destination. The quantities of waste which are landfilled are mainly incinerator ashes which are deposited in a Lonza owned licensed landfill close to our Visp (CH) site.



Waste Reductions in Slough

Lonza's site in Slough (UK) has several initiatives in place to reduce waste and save costs. Until 2018 all laboratory waste was being disposed of as clinical waste instead of segregating out the offensive waste. Significantly more waste is now going into the environmentally better option of waste-to-energy incineration (for offensive waste) rather than to costly, high-temperature incineration (for clinical waste).

Additionally obsolete equipment (e.g. HPLCs, incubators, balances) is being sent since end of 2017 for auction / spare parts rather than for disposal.

In 2017 more than 222,000 disposable cups were used at the site. To hinder this waste, re-usable thermal mugs, individually named, have been distributed to all employees, which has reduced the number of disposable cups down to 52,000 in 2018, meaning a 75 % reduction in the number of cups going to waste.

Lonza 2018 Waste Disposal Quantities by Destination

Waste Types and Destinations²

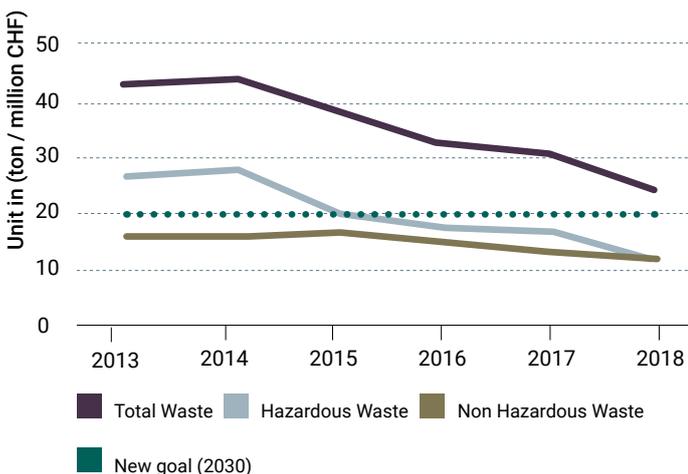
Waste – Hazardous – Incinerated [t]	67,828
Waste – Hazardous – Landfilled [t]	2,826
Waste – Hazardous – Recycled [t]	2,159
Waste – Hazardous – Treated [t]	103
Waste – Non Hazardous – Incinerated [t]	51,686
Waste – Non Hazardous – Landfilled [t]	14,588
Waste – Non Hazardous – Recycled [t]	7,370
Grand Total	146,561

2 Waste is defined as hazardous / non-hazardous by local legal definition.

The waste intensity varies over the years, mainly due to the fact that construction waste was not separated from production waste before the year 2018. Construction and excavation activities contributed to the peaks observed in most recent years. After having refined the waste reporting guidelines, the company will report numbers for production-related waste streams.

Waste Intensity 2018:
Total Waste Within Lonza / Revenue
24 ton / Mio. CHF

Lonza 2018 Waste Intensity



Environmental Compliance

Lonza is committed to legal and regulatory compliance and ethical behavior in all facets of its operations. Environmental compliance is a material topic for all our sites and businesses, across all regions, and includes also our supply chain and products.

The accountability for environmental compliance rests with the sites and the businesses. They all have to employ a management system approach, which includes the regular information 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 over the regulatory requirements.

Regular internal audits of different functions (Internal audit, EHS-audit, loss-prevention visits, quality-audit, authority inspections, and other) assure the oversight and governance. EHS audits are regularly performed in a 3 year cycle, and resulting reports are distributed to the highest management level.

In a management review with their teams, site managers assure that no compliance failures have occurred or fines have been incurred, and notify Lonza's Ethics and Compliance team. Fines, which are an indication for non-compliance, are reported into the environmental data system and are monitored as to the root causes.

Lonza maintains the Lonza Ethics Hotline, a compliance channel (phone, e-mail, mail) where every employee can raise concerns about non-compliances with internal and external rules. The notification can be made anonymously; the channel is maintained by a third party. All notifications are assessed with due care.

Most of Lonza's subsidiaries work with external advisors to stay informed about regulatory changes. The compliance assurance process is relying on the employees and the management teams of the sites. Audits allow to regularly review, assess and ensure compliance.

The company has initiated a survey on environmental compliance in 2018 and is evaluating the results received from the sites.

Non-Compliance with Environmental Laws and Regulations

Lonza did not incur significant fines in 2018 for non-compliance with environmental laws and regulations.

Eco-Friendly Products and Innovation

We are committed to creating value for society by innovating science-based solutions along the Healthcare Continuum® to develop the medicines and consumer products of tomorrow.

For an overview of our most important innovation steps, please check the Annual Report section

[*“Demonstrating a Spirit of Innovation”*](#).

Pharma & Biotech is largely a business-to-business contract manufacturing segment. Therefore, staying up-to-date with production technology and to streamline manufacturing processes is the route to efficiency.

In the Specialty Chemicals segment, the largest market is bio-control products, where regulatory requirements are broad and comprehensive, so to stay well below regulations is the most ambitious task.

" Sustainability in Research and Development (R&D) means developing novel technology platforms that optimize resource utilization, ensure effectiveness for patients and enable standardized manufacturing processes around the Lonza network. We look at how we can expand our reach across the Healthcare Continuum® to add value for our customers by applying these principles in LPB Research and Development.

We design ways to make pharma active ingredients, drug products and Consumer Health products that utilize the latest technology such that our processes are more cost-effective with higher productivity and, at the same time, are of higher quality than ever before. "

Dr. Keith Hutchison
Lonza Pharma & Biotech R&D

Social

Occupational Health & Safety
Non-Discrimination
Protection of Human Rights
Customer Health & Safety
Socioeconomic Compliance
Talent Management
Employee Engagement



Social

Lonza creates sustainable value for the societies as the leading, integrated solutions provider along the Healthcare Continuum®. The medicines, therapies and consumer health products that we provide help to save lives, to extend and enhance lives, and to improve the overall quality of life. We are dedicated to continuing to create value with innovative science-based solutions that will deliver the medicines and consumer products of tomorrow.



Volunteering at Lonza Spain

A group of employees at Lonza Porriño (ES) and their families initiated a reforestation project of 2,000 trees that were destroyed in fires in 2017. "We have come together to improve the environment that we all enjoy, sharing with our colleagues and families moments that go beyond what we usually live – a beautiful morning that demonstrates the desire we have to collaborate."



Donating at Lonza Singapore

The Pink Ribbon Walk & Run is Singapore's largest signature event dedicated to raise awareness and support for those affected by breast cancer. In October 2018 Lonza Singapore participated for the first time, collecting a total of CHF 7,000 in donations.

Our people are the cornerstone of our business, so we offer many opportunities for our employees to improve their skills, build on their work experience and grow their personal careers. We provide them safe workplaces, care for their well-being and foster their involvement in creating a positive working environment.

We aspire to be a good citizen and to support sustainable development with projects for education, environment and health. Lonza engages in a wide range of initiatives to create benefits for our many stakeholders, including the communities where we live and operate and our own employees and their families.

By cultivating relationships and contributing our knowledge, expertise, logistics and financial support, Lonza is creating sustainable value for our communities around the world.

While our financial donations are important, our employees also play a critical role by volunteering in programs and projects in our five priority areas: Social and Humanitarian, Education and Science, Health and Sports, Environment, Arts and Culture. We focus our resources on a small number of selected projects where our engagement can make a distinctive difference and which are linked to our businesses.

For more information on Lonza's investment in our communities, please also check [Annual Report section](#).



Sponsoring for Sanitation in Uganda

An estimated 2.3 billion people lack access to improved sanitation and hygiene. In Uganda, one of the poorest countries in the world, many people rely on pit latrines or outhouses as their bathrooms. If untreated, pit latrines can become a breeding ground for mosquitoes, germs and viruses, which contaminate the environment and spread diseases. Since 2015 Lonza has teamed up with the non-governmental organization Clean Habitat Uganda to provide Water Care's HTH Scientific® sanitizer tablets for use in treating pit latrines, currently distributing to communities serving 5,000 homes.

Occupational Health and Safety

One of Lonza's core commitments is our "Vision Zero" initiative, whose ultimate goal is to accomplish zero workplace injuries or illnesses, zero manufacturing process incidents, zero environmental incidents, and zero transportation incidents involving our products or services.

Under this commitment, Lonza wants every employee to return home at the end of the working day safely and in good health. We seek to provide a workplace environment that does not affect the health or otherwise compromise the well-being of our employees.

Lonza makes efforts to prevent and mitigate negative occupational health and safety impacts on everyone who uses or handles our products, from our own workers to customers and others. To us, Occupational Health and Safety are of vital importance.



Campaign in Visp (Ch) "Our Safety Is Important to Me"

This campaign draws attention to Visp's safety culture at work and outside work by involving employees and their families in it. This example shows Michael Kuonen, an Olympic bobsleigh runner and Lonza employee, with his father, also a Lonza employee. The message is to keep safe in the ice track and at work.

More than five years ago, we took a step up to operate even more safely and sustainably by announcing the "Vision Zero" initiative. This program has led to a remarkable reduction in safety incidents and increased efficiency.

The 2016–2020 medium-term safety and sustainability goals include a 60% reduction of the 2015 safety target of the former cycle. While we have been able to achieve this goal in the year 2017, incident rates demonstrate a statistical variation influenced by factors not fully controlled by the company, like insurance policies and medical pathways. Therefore the year 2018 ended with a total of 41 lost time accidents and a frequency rate of 1.29.

Labor practices and safe work conditions of Lonza's operations are within the responsibility of site management, who report to the Global Head of Operations for the segments LSI and LPB.

At the local level, the site, the operations and the EHS managers are accountable for the safety performance and for setting and achieving local targets accordingly. Ultimately every Lonza employee has to contribute by identifying residual risks, observing colleagues' safe behaviors and working safety at all times. Safety is a condition of employment.

Whereas the EHS policy defines high-level principles, our corporate EHS management system and our detailed guidelines support their implementation. The process safety team – part of the corporate EHS group – is working closely with the sites in the implementation of rules and standards for safe processes. Some sites are certified according to OHSAS 18001 and Responsible Care.



"Lake Charles Safety Award"

The Lake Charles (US) site was awarded special recognition by the Louisiana Chemical Association at the 59th LCA Annual Meeting in New Orleans. The site has been a finalist for three straight years, and took home a winner's flag for 2018, based on 2017 EHS performance.

Lonza EHS policies include:

- Guidelines including Health Surveillance, Critical Work, EHS 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
- [Supplier Code of Conduct](#)
- Construction Site Policy, which includes contractor requirements.

Lonza regularly audits sites and locations – on average every three years – to assure compliance to rules and regulations, technical integrity and effective management systems. Sites are evaluated on performance and compliance, and the audit reports are also reviewed by the CEO and the Executive Committee.

Lonza Long-Term Targets 2019 – 2030:

- Zero lost time injuries (aspiration)
- Annual milestone: Number of corrective actions and accidents (defined by target)

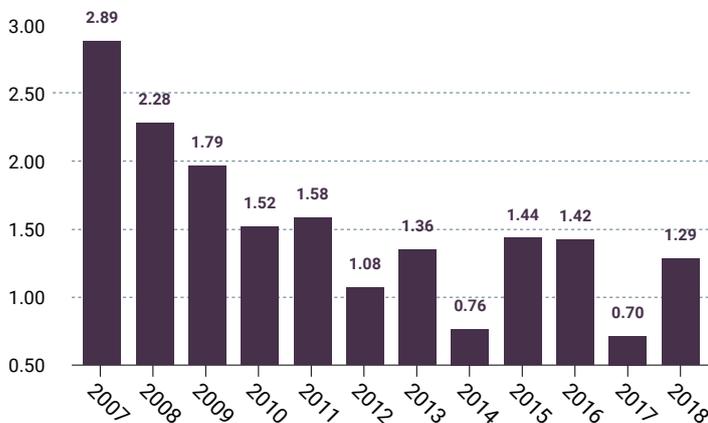
Lonza tightly monitors its performance regarding occupational health and safety. A monthly analysis report is distributed to global and local line management and to all EHS managers. These reports and the consecutive activities are carefully tracked and measured, and global and local management approaches are adapted accordingly, including action plans and immediate actions. Our rate of environmental incidents (number of permit exceedance; community complaint; fines and penalties and off site notifications) has decreased by more than 65 % compared to 2017; our rate of process safety incidents (number of process safety incidents, events, fines and penalties) has decreased by 50 % compared to 2017.

To further underscore management's commitment to occupational health and safety, the company for many years has included results of the safety initiatives into personal pay bonus metrics.

Occupational Health and Safety Management System

Lonza maintains an EHS Management System that is derived from the SOCMA (Society of Chemical Manufacturers and Affiliates) ChemStewards system, with several modifications to enhance personnel safety. In principle, our system reflects similar requirements and steps as the ISO management systems' standards for safety and health. This program applies to all locations and all Lonza employees. Lonza also provides health insurance benefits to the workforce.

Lonza Lost Time Injury Frequency Rate (per 1 Mio. hours worked)



Hazard Identification, Risk Assessment, and Incident Investigation

Work-related hazards are identified through processes such as hazard (near-miss) reporting, job safety analysis, site inspections, and Process Hazard Reviews. Site personnel are trained in these processes, and local and global EHS leaders review corrective actions that were generated and completed. Near-miss hazard reporting is encouraged and some sites include a reward program for employees who submit corrective actions for potential hazards or that otherwise make the workplace safer and more productive.

All incidents are investigated. A formal root cause analysis process, according to the ThinkReliability methodology, is used for recordable injuries as well as significant process safety incidents and environmental incidents. All employees are allowed to refuse actions that they consider hazardous for themselves, their colleagues and/or the community and environment. There is an anonymous Lonza Ethics Hotline to report violations of this commitment.

Occupational Health Services

All operating sites have a program that is in accord with the HazCom program (Hazard Communication Standard from OSHA, the US Occupational Safety & Health Administration) for the identification of chemical hazards. All sites also have a designated clinic or physician for evaluation of occupational injuries or illnesses.

Worker Participation, Consultation, and Communication on Occupational Health and Safety

Worker participation is required and outlined in Lonza's process safety program. Major sites have a safety committee for input on all safety-related matters. Additionally, all sites are required to conduct sequential safety meetings.

Worker Training on Occupational Health and Safety

All sites conduct required safety training on hazardous materials (HazCom), critical safe work procedures, evacuation, process safety analysis, etc.

Promotion of Worker Health

At Lonza we foster a corporate culture that prevents injuries, and want to live up to the meaning of the Healthcare Continuum®, also for our people. As a result, Lonza sites are motivated and passionate

about safety and health, and understand that investing in our employees' health and well-being pays dividends and assures colleagues are fully engaged.

As an illustration, the local Site Health Management program in Lonza's largest site in Visp (CH) offers a complete range of services, based on five pillars to improve employee health while ensuring a safe and healthy work environment. It includes experts to support and advise employees on physical and mental health and even on other matters of vital personal importance like finances and insurance.



Lonza Makes You Fit

In cooperation with the organizers of the Gornergrat Zermatt Marathon, the project "Lonza Makes You Fit" was initiated in Visp (CH) and Basel (CH) in 2016. The goal was to make Lonza employees fit for the Half-Marathon. Lonza developed a comprehensive health program and successfully prepared participants to complete the most beautiful mountain race in the world.

In 2017, the project in Visp also extended to cycling and the Energy for Every Day concept supporting a healthy work-life balance. Since the project launch in 2016, around 500 employees have been taking part in one or more programs, which equals about 20% of the workforce at Lonza Visp – and the trend is upwards.



Keeping Fit in the UK

At our Slough and Cambridge (UK) sites, 300 employees took part in a 100-day global health challenge to achieve a healthier lifestyle focused on physical activity, nutrition, balance and sleep. Among other benefits, 71% of the employees that participated reported a decrease in their stress levels either at home or at work.

Prevention and Mitigation of Occupational Health and Safety Impacts Directly Linked by Business Relationships

We continuously monitor our operations regarding health risks for our employees: This encompasses 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

Visp Site Health Management

Lonza Makes You Fit

Cycling, running

Healthy at the Workplace

Ergonomics, nutrition, movement, non-smoking, life-balance

Case and Absence Management

Social counseling, addiction, mobbing, training, reporting

Generation Management

Work and organizational structure for young and old, part time, shift-work

Social Responsibility

Support services, protected employment

Lonza products are primarily pharma related or regulated microbial control products. In addition to required Safety Data Sheet information, these products have extensive testing, registration requirements, instructions for use, etc.

Work-Related Injuries

Within the calendar year 2018, we did not record fatalities resulting from a work-related injury, nor injuries resulting from commuting incidents from transport organized by the company. All the accident data from the Lonza's subsidiaries is processed as anonymous data, therefore a breakdown by gender at Group level is not available.

Most injuries recorded and analyzed in the year 2018 were the result of slips, trips, falls and sprains and strains, which is commonly the case in our industry. There were some injuries resulting from impact, e.g. from pallet lifts, and few chemical exposure injuries.

Lost Time Injury Frequency Rates (LTIFR) are calculated based on 1 Mio. hours worked. Data only represent employed workforce and agency workforce in regular manufacturing processes. All workers are included in incident tracking and reporting; however, rate information is only available for direct employees as contractor hours are not tracked.

All injuries are evaluated and corrective actions are generated for specific incidents, as well as action plans for significant causal situations. Strains resulting from manual handling are a current concern. Several sites are undergoing ergonomic assessments and most sites have manual handling training using the Safety in Motion system.

Non-Discrimination

Lonza's Code of Conduct prohibits discrimination. It states that Lonza does 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. Nor will Lonza engage in or support, directly or indirectly, child labor, or bonded or forced labor of any kind. This applies to all subsidiaries of the company and to any vendor to Lonza, or in the supply chain.

The company provides annual training to all its employees regarding compliance with its Code of Conduct. Lonza's Ethics Hotline provides a mechanism for employees and others to report potential violations of the Code of Conduct, any Lonza policies or procedures (including those related to ethical sourcing), or applicable laws. Such reports may be made anonymously where allowable by law. Any reports of alleged discrimination made through the Ethics Hotline, or reported directly to Lonza's compliance function in any other way, are reviewed by Lonza's Ethics & Compliance team. Any discrimination allegation received by Lonza's Ethics & Compliance team is reviewed in conjunction with in-house employment counsel and, Lonza's Human Resources function. Any employee found responsible for any violations may face disciplinary action, including termination of employment. The company considers this management approach to be effective.



Human Rights

Assessment

Lonza regards respect for human rights as a foundation of the business wherever it operates. Lonza Group Ltd joined the United Nations Global Compact (UNGC) in March 2009. As a signatory of the UN Global Compact, Lonza supports and respects the protection of internationally proclaimed human rights and ensures that it is not complicit in human rights abuses. Being active in many parts of the world, Lonza is 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. Therefore we included this element in the survey initiated in 2018 across all sites.

Lonza regards respect for human rights as a foundation of the business wherever it operates. Lonza's Code of Conduct requires all employees to comply with applicable laws and regulations. At any location where Lonza has operations this excludes child labor and forced labor. Lonza provides annual training to all its employees regarding compliance with its Code of Conduct. Lonza also provides additional training to its purchasing employees on the Supplier's Code of Conduct.

The Lonza Ethics Hotline provides a mechanism for employees and others to report potential violations of the Code of Conduct, any Lonza policies or procedures (including those related to ethical sourcing), or applicable laws on an anonymous basis, where allowed by law. Those found responsible for any violations may face disciplinary action, up to termination of employment.

Lonza also expects its suppliers to respect human rights, which is reflected in Lonza's Supplier Code of Conduct.

Suppliers that enter into Lonza's standard supply agreement agree to adhere to Lonza's Supplier Code of Conduct, which sets forth certain ethical and quality standards, including standards related to labor, health, safety, and the environment. Lonza's 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, and requiring work hours, minimum wages, and overtime hours to be paid to employees, as well as any fringe benefits, in compliance with applicable law. Lonza's Supplier Code of Conduct applies to both its suppliers and to any subcontractors or other third parties that a supplier may engage in the performance of its contractual obligations. Currently, suppliers are instructed to implement internal measuring procedures, tools and indicators required to guarantee adherence to the Lonza Supplier Code of Conduct principles. Suppliers are encouraged to report any violations by sending an e-mail to compliancegroup@lonza.com or by using our ethics and compliance reporting hotline, [Lonza Ethics Hotline](#).

Per the Lonza Sourcing and Purchasing Policy, Lonza reserves 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. In the event Lonza becomes aware of any actions or conditions not in compliance with its Supplier Code of Conduct, Lonza reserves the right to request corrective actions and the right to terminate any agreement with a non-compliant supplier unless our supplier agreement provides otherwise. The company considers this management approach to be effective.

Customer Health and Safety

Lonza manufactures and markets a broad range of products and services for the pharma and consumer health industry to improve the health and well-being of patients and consumers. These include specialty chemicals, hygiene actives, household disinfectants, cosmetic ingredients and preservatives, nutritional supplements and pharmaceutical and biotech contract manufacturing. These products require a high and often regulated standard of quality and efficacy. As personal, household care and consumer health and pharmaceutical ingredients, Lonza products are subject to a high and increasing level of regulatory oversight and public awareness. If not evaluated, manufactured, labeled and used appropriately, there may be health and safety risks for customers and the end-consumers.

Moreover, public perceptions, regulation and global chemical management initiatives such as GHS (Globally Harmonized System for classification, labelling and packaging of chemicals) intend to reduce negative impacts of chemicals on humans and the environment. 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.

Lonza is predominately involved in business-to-business transactions as a supplier of goods to manufacture final products placed on the pharma and consumer market. It is our duty to ensure that our products are fit for purpose and can be used by customers safely in their intended use. Customers are generally formulators who also have procedures and personnel in place to assess hazards and risks and promote the safety of their products. However, Lonza believes that our responsibilities include providing the foundation and data for the safe use of our customers' products.

Lonza believes that the performance in the area of Customer Health and Safety is the standard among our immediate peer group. Even so, Lonza's performance in assessing and improving the health and safety impacts of its products remains an area of growth and investment as the company integrates 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 in order to improve our performance as they are brought on line.

About Animal Welfare

In order to ensure the safe handling and use of products, regulatory authorities in many countries require animal testing.

Lonza uses validated alternatives to animal tests, and we cooperate with independent contract laboratories that are carefully selected to ensure they meet the highest ethical and quality standards.

To replace animal testing in the pharma industry, Lonza has developed non-animal alternatives to the use of animal testing. Examples are the Bioscience Solutions' primary cell and media product lines, which represent one of the major alternatives to animal models in R&D labs.

Lonza's guiding Code of Conduct requires compliance with all applicable regulations governing our businesses. We are, however, committed to achieving a high-performance product safety and regulatory culture that does not merely fulfil the technical requirements. We are committed to continuous improvement in reducing the existing hazards and risks associated with the use of our products. Our management approach for customer health and safety is intended to avoid negative impacts associated with the use of our products.

Lonza maintains in-house 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 aspect of Lonza's value proposition. Products are therefore evaluated for health and safety through systematic processes and procedures embedded in our organizational and business structures. The company considers this management approach to be effective.

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

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

Socioeconomic Compliance

Lonza's Code of Conduct requires compliance with all laws and regulations. All employees are expected to know, understand and comply with all laws, regulations and best business practices that apply to their activities, whether they relate to accounting, tax, corruption, competition, the provision of products or services, labour issues or others. It provides for 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.

Lonza provides annual training to all its employees regarding compliance with its Code of Conduct. Lonza's Ethics Hotline provides a mechanism for employees and others to report potential violations of the Code of Conduct, any Lonza policies or procedures (including those related to ethical sourcing), or applicable laws. Such reports may be made anonymously where allowable by law. Any reports of non-compliance made through the Lonza Ethics Hotline, or reported directly to Lonza's Ethics & Compliance team in any other way, are reviewed by Lonza's Compliance function. Any non-compliance allegation received by Lonza's Compliance function is reviewed in conjunction with in-house employment counsel and, if needed, Lonza's Human Resources function. Any employee found responsible for any violations may face disciplinary action, including termination of employment.

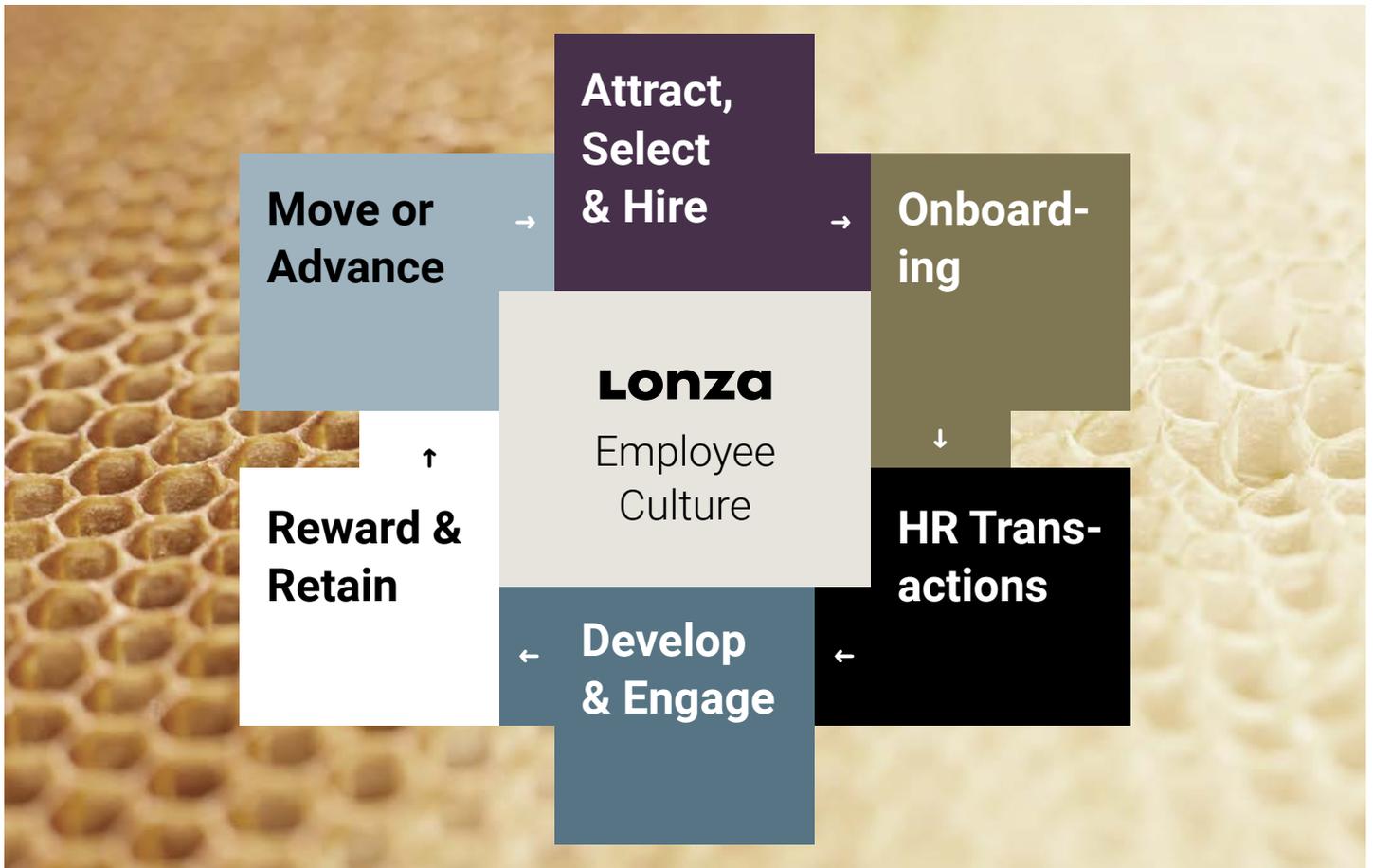
The company initiated a survey with our sites regarding compliance with principles of human rights, environmental compliance, anti-corruption, non-discrimination, etc. We are currently analyzing the results and will report on outcomes.

Talent Management

Lonza teams work together to draw upon our pharma and biotech expertise and specialty chemical know-how to advance quality of life for fellow humans. As we continually reinvent our business, a culture of high performing teams is the “blue-print” connecting employees throughout their careers at Lonza with the commitment to provide exceptional results for customers. We offer support and development through our talent management processes.

Lonza’s Talent Philosophy is Driven by Five Principles:

- 1 **Performance:** We believe in and expect strong, sustained employee performance; those in critical roles are held to a higher performance standard.
- 2 **Behaviors:** How we behave while achieving business results directly influences compensation and career progression. (“What” = results; “How” = behavior)
- 3 **Differentiation:** While we develop all employees, our investment in talent development will prioritize high potential individuals. Those at the highest level of performance will receive significantly higher rewards than those with average performance.
- 4 **Accountability:** People Managers are evaluated on delivering results as well as how well they build the quality and depth of their team.
- 5 **Transparency:** We share information with employees about the talent processes, and provide frequent and honest feedback so there are no surprises during Performance Review discussions.



Employee Engagement

The “**Lonza Core Competencies**” were developed in consultation with the Executive Committee in 2015 and introduced to the business in 2016. They are integrated into our daily work through talent acquisition, assessment and performance management processes. They are future-oriented, tangible for all employees and relevant to all employees at all grades.

Core Competencies are Split into Both Business and People Facets:

Business Competencies

We aim for our employees to focus and deliver, by knowing the business and thinking ahead in the interests of Lonza, and taking into account internal and external customer requirements.

People Competencies

Our People should facilitate changes and be flexible to learn, communicate effectively and work successfully in a team, which includes being reliable and taking the lead when appropriate.

Performance Management

All employees participate in the Lonza Performance Management process, Maximizing and Aligning Performance (MAP). In this initiative we recognize and encourage superior individual effort, behaviors and achievement through performance check-in conversations, personal recognition and through our 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 planning activities.

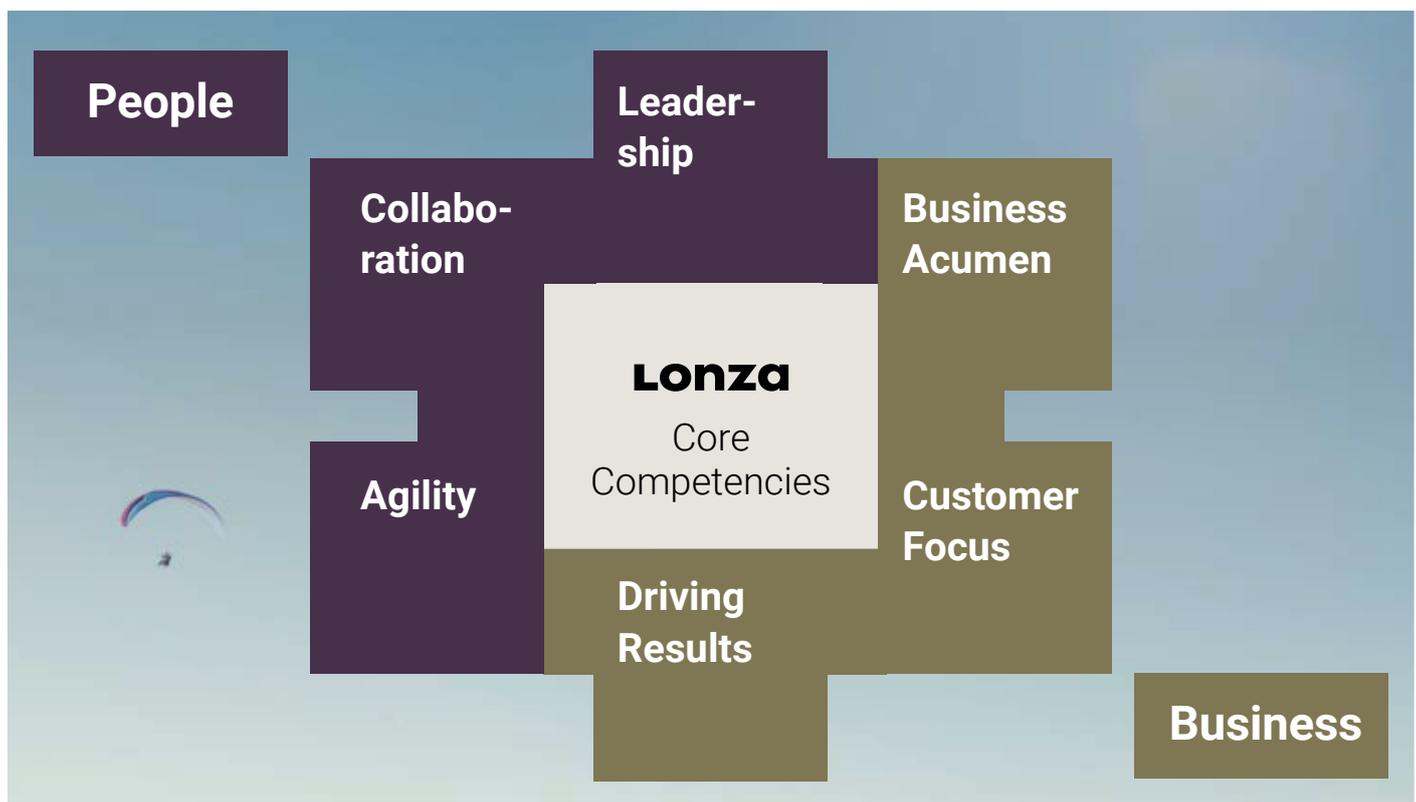
We aspire to make Lonza a place where people are engaged and enabled to perform. Employee engagement is a key enabler because we need our employees to:

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

On a global level, a series of Life@Lonza internal employee surveys started in 2007. They contain questions on different topics like Strategy and Way Forward, Change Management, Performance, Collaboration and Communication – all designed to capture employees’ feedback, view on our culture, our way of performing and opportunities to improve. Survey results are handled with absolute confidentiality. The survey benchmarks two focus areas against other top performing companies:

1. Engagement comes from employees’ perception about their life at work. For example: pride, satisfaction, advocacy and commitment
2. Performance Enablement is the extent to which the company creates the conditions enabling employees to do their work properly. For example: customer orientation, focus on safety and quality, training and involvement in decisions.

The results are communicated globally and locally, so that employee feedback helps us to identify where we are going, and which areas need improvement and to close the identified gaps. The latest survey was conducted in year 2016.



Employee Engagement

Employees respond to questions about pride, satisfaction, advocacy and commitment relative to Lonza on a five point scale from strongly disagree to strongly agree. The percentage of favorable responses (agree and strongly agree) are used to benchmark employee engagement against other companies, determine internal benchmarks across teams and compare trends against historical data.

Performance Enablement

Employees respond to questions about quality, customer focus, team dynamics and training. It uses the same scale and benchmarks in the same way as Employee Engagement.

Life@Lonza 2016 Survey

Response Rate

Lonza Overall 2014: **79 %**
67 %

Employee Engagement

Lonza Overall 2014: 58 %
Average Norm: 70 % **64 %**
High Performance Norm: 77 %

Performance Enablement

Lonza Overall 2014: 70 %
Average Norm: 74 % **73 %**
High Performance Norm: 80 %



GRI Content Index

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General Disclosures			
GRI 102: General Disclosures 2016	102-1 Name of the organization		Lonza Group Ltd
	102-2 Activities, brands, products, and services	9	
	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 Lonza's 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).
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	Disclosure 102-17 Mechanisms for advice and concerns about ethics	15	
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	102-41 Collective bargaining agreements		<p>On a corporate level, Lonza is not collecting specific information about collective bargaining agreements in affiliates. Generally, the Lonza Group companies are established in countries where representation of employees via works council, unions and collective bargaining agreements are the rule. Local Management is responsible to maintain good labor relations according to legal requirements and agreements with unions, work councils and other employee representing bodies.</p> <p>Lonza respects these relationships and works with these parties in a mutually respectful manner. In addition to the country-specific employee representation, Lonza also established a European Work Council that features regular meetings to maintain a positive culture of information and communication. In the European Works all European countries with more than 100 employees are represented by employee nominated delegates: Belgium, France, Germany, Czech Republic, Holland, Spain, the United Kingdom and Switzerland. The European Work Council is assisted and supported by an union secretary.</p>
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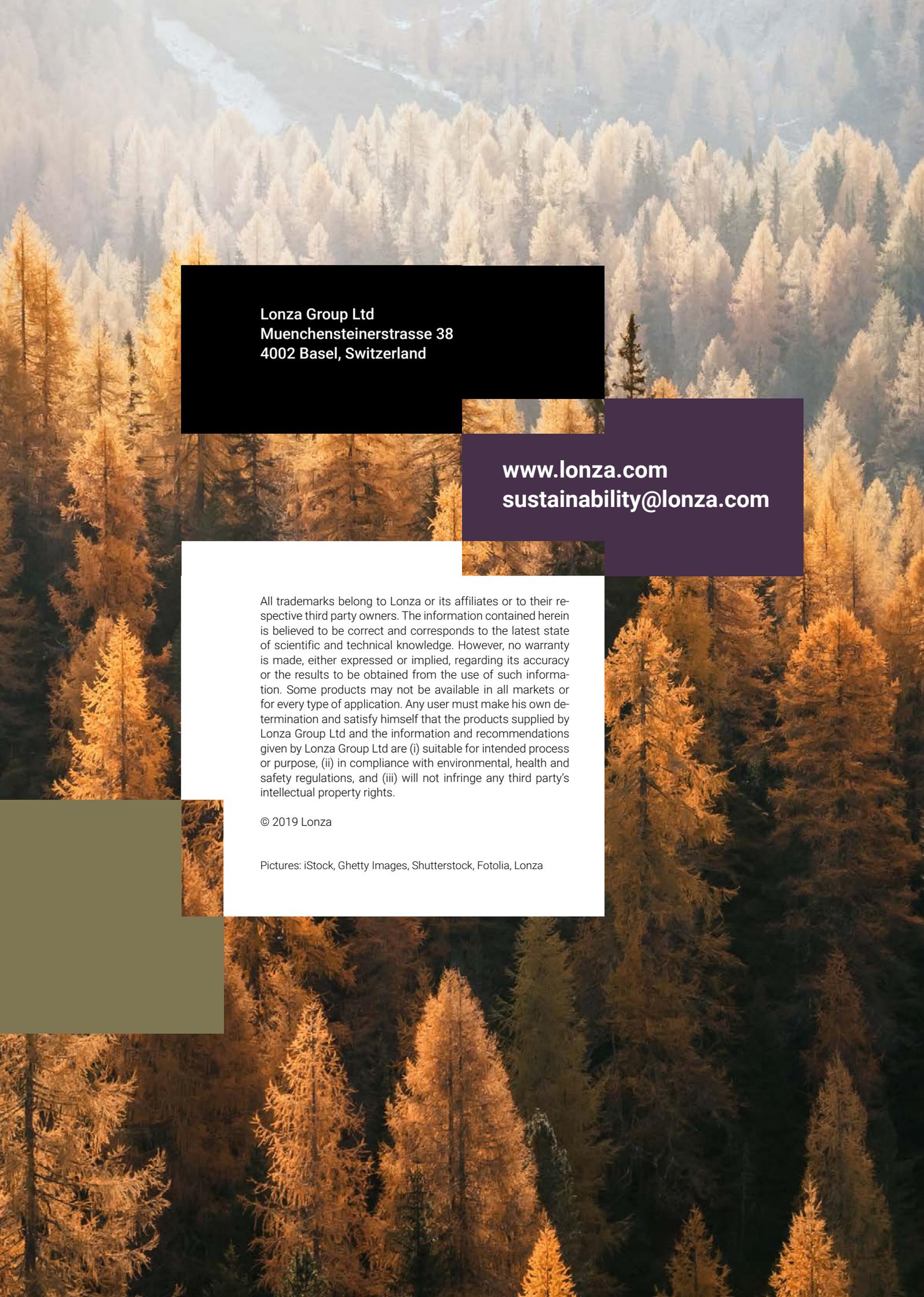
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