

Enabling a Healthier World

Lonza

Sustainability Report

2023



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☑> Sections that are covered by the requirements of Art. 964b of the Swiss Code of Obligations and the limited assurance engagement covering the disclosures on non-financial matters in accordance with Art. 964b of the Swiss Code of Obligations. <☑

Ⓢ Disclosures covered by the limited assurance engagement covering Global Reporting Initiative (GRI) requirements and Lonza internally developed KPIs.

Our Commitment to Sustainability



Dear Stakeholders,

Our long-term commitment to sustainable business supports our purpose to enable a healthier world. Sustainability is an important strategic priority for our business, and a collective responsibility shared by our global community. In this report, we share an overview of our sustainability initiatives alongside an update on progress throughout 2023.

We have structured our approach to sustainability by focusing on the seven United Nations Sustainable Development Goals (SDG) that are most relevant to our business. Topics range from energy and water actions, to people development, gender equality and customer satisfaction. Each SDG is assigned to a member of our Executive Committee and a Senior Program Manager, who are responsible for driving improvements across our business. Following this approach, in 2023 we achieved several milestones as we continued to make progress towards our sustainability targets.

In pursuit of our ambition to achieve net-zero by 2050 or earlier, we developed a comprehensive climate plan to reduce Scope 1 and 2 emissions by more than 40% by the end of 2030. This plan combines elements such as green electricity, efficiency projects, and new low emission assets. We signed a letter of commitment and submitted our targets to the Science Based Targets Initiative (SBTi).

Our two newly-signed Power Purchase Agreements will provide renewable energy equal to our electricity needs across Switzerland, the European Union and China. This supports our ambition to purchase all electricity from renewable sources where available by 2025, and it is a major step forward for our carbon reduction strategy.

Our Responsible Sourcing initiative was strengthened through the update of our Supplier Code of Conduct to include assessments on child labor and conflict minerals in the supply chain. We also launched a Supplier Decarbonization program to reduce Scope 3 emissions and continue to engage with suppliers to drive improvements and share best practice.

We work to create an inclusive environment for our diverse workforce centered around our respect for human rights, and put our people at the heart of our business. In 2023, we established a central platform of training opportunities to enhance visibility and access for all our colleagues. To promote gender equality, we devised a multi-year roadmap to build a strong pipeline of women leaders to support sustainable representation of women in leadership by 2035.

We continue to support local communities through science days, volunteering in education and training, and donations to non-profits and educational institutions. A significant contribution to community engagement programs comes from our colleagues who volunteer to support local projects. We allocate one full working day for employees to volunteer in their local community each year.

Responsibility and integrity are key considerations in all that we do. Looking ahead to 2024, we will continue to focus on building momentum across our sustainability initiatives and strive to deliver long-term value, economically, environmentally and socially.

Best regards,
Albert M. Baehny
Chairman of the Board of Directors and Chief Executive Officer (CEO) *ad interim*

Our Journey

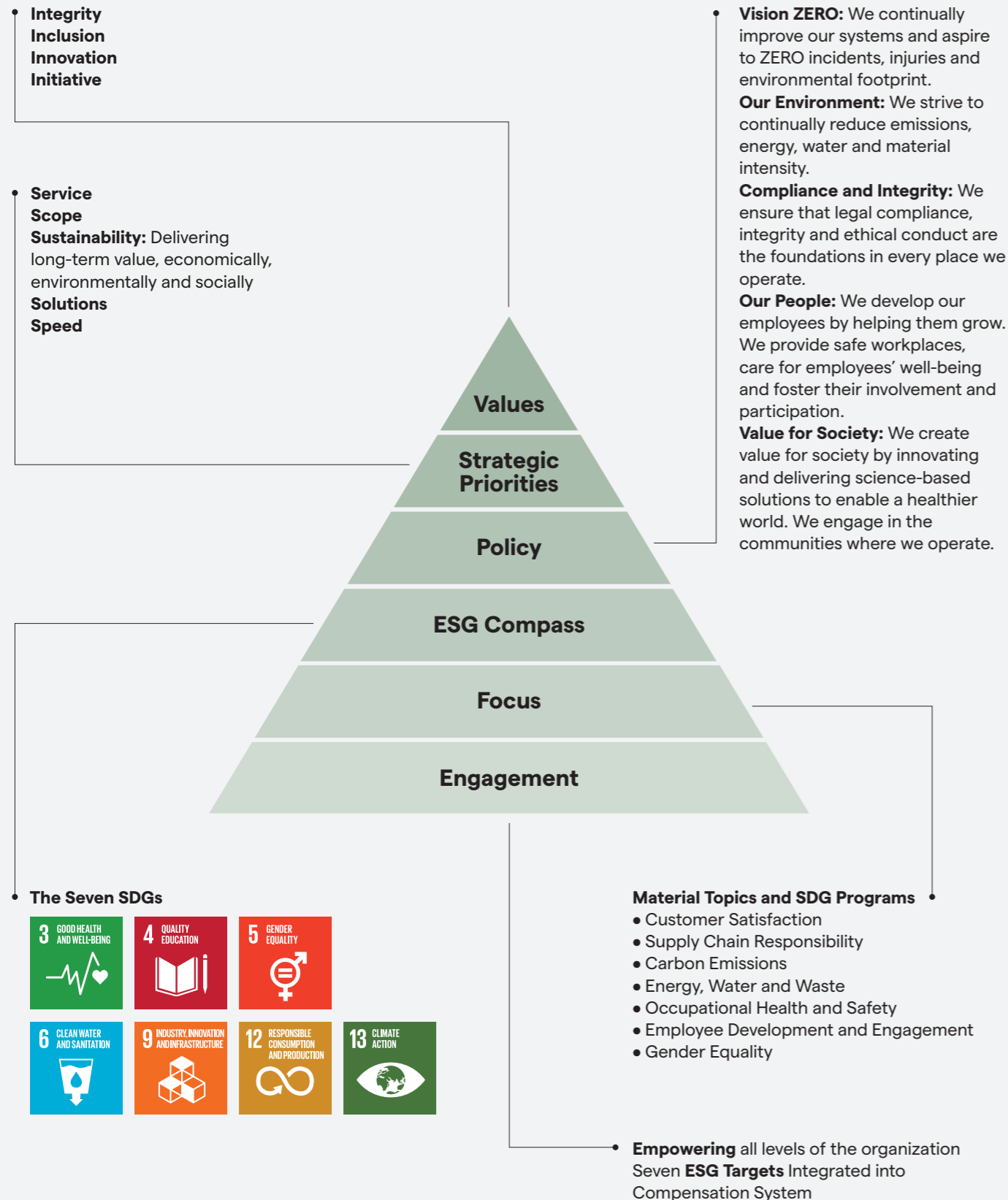
Safety and sustainability are essential to how we operate. In this report, we share an overview of our performance relating to our commitments and relevant sustainability topics for our business and our stakeholders.

We have grouped our sustainability initiatives around the material topics and the United Nations (UN) Sustainable Development Goals (SDGs). The SDGs provide a global blueprint to achieve a better and sustainable future, which businesses can utilize to focus their activities and enhance their impact. We have aligned our activities to the seven SDGs that relate most closely to our material topics (see GRI Index in the Appendix) and global needs. This Environment, Social and Governance (ESG) framework enables us to create a meaningful sustainability strategy and program which is relevant to our business, society and planet. Like a compass, it guides us on our journey to implementing robust action plans for the mid- and long-term, while integrating existing initiatives. The success of our ESG program depends on individual and collective commitment as a pre-requisite of our success.

Each of our priority SDGs has been directly assigned to an Executive Committee (EC) member who – in turn – is supported by a Program Manager to initiate and execute an effective cross-functional program built around each goal. Since 2022, executive compensation and global performance-based rewards have been aligned with our SDGs and related metrics. For more information, please see the [Remuneration](#) section of our Annual Report.

Our Sustainability Framework

Enabling a Healthier World in a Sustainable Way



Interpreting the Seven SDGs

3 GOOD HEALTH AND WELL-BEING

Good Health and Wellbeing: We enable a healthier world by collaborating with our customers to produce patient treatments. We also pursue our vision to bring any therapy to life with new products, services and cutting-edge manufacturing technologies. The safety and wellbeing of our global colleague community also represents a top priority across our global network.

13 CLIMATE ACTION

Climate Action: Greenhouse gas (GHG) emissions contribute to global warming, affecting the climate and impacting the health of people and planet. We are taking decisive steps to reduce our GHG emissions in pursuit of our ambition to reach net-zero by 2050. In 2023, we committed to the Science Based Targets Initiative (SBTi), and we signed a ten-year virtual power purchase agreement for a new solar field which will match our electricity needs across Switzerland and the European Union. We also have secured a renewable power purchase agreement in China together with four global pharma companies, which will cover our whole electricity consumption in this region.

5 GENDER EQUALITY

Gender Equality: A diverse global colleague community, which embraces differences in characteristics, preferences, perspectives, and beliefs, and demonstrates respect for human rights, contributes to better business outcomes. As part of our diversity program, we aim to increase the percentage of women in management roles to 35% by 2035. We train hiring managers on the importance of removing obstacles that may inhibit women's success. We also share best practices and learnings internally through diversity representatives in our sites and initiatives to support women at all levels (e.g. via employee resource groups). In 2023, we also rolled out training programs to engage our people with diversity topics such as unconscious bias.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Industry, Innovation and Infrastructure: We drive the development of game-changing technologies, including gene editing and automated therapy manufacturing systems. This supports innovation in our customer industries for the benefit of patients and society. Sustainability is embedded into our organic growth and footprint expansion during ideation, design, construction and operation. Sustainable Design Standards provide a framework to help us reduce energy and water consumption, GHG emissions, and waste production across growth assets. This will support us in achieving our ambition to reduce our Scope 1 and 2 GHG emissions by more than 40% by the end of 2030.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Responsible Consumption and Production: We source materials from responsible suppliers that meet strict compliance standards and have action plans in place to reduce their emissions, waste and natural resources, alongside climate action plans that support our Scope 3 SBTi target proposal. Our Supplier Code of Conduct integrates all environmental and compliance requirements, and we conduct in-depth risk assessments that include due diligence on child labor and conflict minerals. We encourage suppliers to participate in our Scope 3 reduction efforts, and we continue to reduce our environmental impact through the implementation of programs to limit consumption and waste.

6 CLEAN WATER AND SANITATION

Clean Water and Sanitation: Clean, plentiful, potable water is a basic human need, and it is also critical to ensure the quality of our products. Our water reduction program focuses on reducing our demand for water and preventing water scarcity in the areas where we operate. We are committed to protecting the water ecosystem to ensure that it stays clean of pharmaceutical substances or other pollutants. Our site representatives conduct water risk and opportunity assessments, analyze consumption and discharge quantity and quality, and share best practices for continuous improvement.

4 QUALITY EDUCATION

Quality Education: The development of our people is critical to our success. We support colleagues with extensive training and development curricula, individual development plans, coaching opportunities, and internal promotions. We forge partnerships with academia and contribute to the scientific progress in our industry. We invest in and collaborate with local communities through science days, volunteering in education and training, and donations to educational causes.

Our focus on the SDGs demonstrates our respect for human rights and contributes to the value we create for society and for our key stakeholders in the following ways:

- For our employees: by ensuring fair remuneration, development, training, progression, and rewarding career opportunities
- For customers, healthcare partners and patients: by supplying therapies and health ingredients, and collaborating on technologies to enable better patient outcomes
- For suppliers and business partners: by establishing fair relationships, offering leadership, and supporting their efforts to reduce their environmental footprint
- For shareholders: by de-risking their long-term investments
- For society: by delivering patient therapies, supporting communities through volunteering and financial contributions, and following sustainable practices that support and protect our planet

It is a challenge to quantify the external impacts of these contributions, besides the direct monetary value or the “cost” to create this value. Raw materials, air, energy, emissions and water can be viewed as costs to society, as they use common resources. The same is true of societal infrastructure, such as use of transportation, education systems, legislation, regulatory systems and the needed supply chain for materials and services.

As a proxy in estimating the magnitude of the gross value to society in relation to the cost element, we monetize the impacts using Lonza’s carbon footprint (in CO₂ equivalents) for fuels (Scope 1), electrical power and steam (Scope 2) and all supplied materials and services (Scope 3) to manufacture our outputs, totaling 2,308 thousand tons CO₂-eq. In this model, we assume a cost of carbon of CHF 100 per ton of CO₂-eq. When we compare the net value added to our stakeholders (CHF 3,145 m) in 2023, which is a proxy to estimate the value for society, with the “cost” of creating this value, which is around CHF 231 m the model shows the cost element is a fraction (around 3%) of the value created for society.

SDG 3 Good Health and Wellbeing

“By helping our customers to deliver life-changing therapies, and prioritizing our colleagues’ safety and wellbeing, we can fulfil our purpose to enable a healthier world.”

Daniel Palmacci
President, Cell & Gene



About Us

We are a leading strategic global partner to the healthcare industry, founded in Switzerland in 1897. We enable a healthier world by collaborating with our customers on new and innovative medicines that help treat a wide range of diseases. We achieve this by combining technological insight with world-class manufacturing, scientific expertise and process excellence. Our unparalleled breadth of development and manufacturing processes enable our customers to commercialize their discoveries and innovations in the pharmaceutical, biotech and nutrition markets.

🌍 We operate across five continents, and our structure of four divisions has been designed to capture synergies and meet the needs of our global customers. More information on our business model is provided in the [Our Businesses](#) section of our 2023 Annual Report. 📄

Economic Performance

🌍 We strive to create value for our shareholders, customers, employees, suppliers and communities. We distribute our derived economic value to multiple stakeholders through a variety of streams. These include employees through compensation and benefits, shareholders through share price evolution and dividends, suppliers and service providers through raw material and service contracts, and society and governments through taxes and local community projects. Part of the earned value is retained in the company for further growth through innovation, strategic investments and bolt-on acquisitions. 📄 The net value added to all our stakeholders in 2023 was 3,145 million CHF. Our tax report/policy is available on our website. For further information on our financial performance, please see the [Financial Statements](#) section of our 2023 Annual Report.



Lonza's Business Divisions

	What we do	Key Modalities
Biologics	We accelerate and de-risk the path from drug substance development to drug product supply for complex modalities including mammalian, microbial, mRNA and bioconjugates.	Mammalian Microbial Licensing Bioconjugates Drug Product Services mRNA
Small Molecules	We support the journey from early development to commercial supply, with drug substance, drug product and particle engineering services.	Active Pharmaceutical Ingredients Drug Product Formulation
Cell & Gene	We support and equip our customers to develop, de-risk, commercialize and scale their emerging therapies.	Bioscience Cell & Gene Technologies Personalized Medicine
Capsules & Health Ingredients	We enable our customers with innovative and functional capsules, differentiated dosage form solutions and science-backed health ingredients.	Capsules Health Ingredients

In 2024, we will prioritize the following key internal sustainability initiatives:

- Reviewing the materiality analysis using the 'double materiality' concept
- Increased understanding of climate related effects on our main manufacturing sites and the group
- Strengthening our pipeline of energy and GHG reduction projects supporting our GHG reduction commitment
- Expanding supplier engagement to manage supply chain compliance and footprint
- Continuing to focus on business continuity, alongside the health and safety of our employees
- Continuing to deliver capital expenditure (CAPEX) investment to meet specific customer demand and enable long-term growth
- Focusing on talent attraction, retention and development to support expansion and sustainable growth
- Establishing and strengthening systems and processes across our divisions to optimize efficiency and delivery

Governance

In accordance with the law and the Lonza Articles of Association, the Board of Directors (Board) is the most senior management body of Lonza Group. The Board defines the strategic direction and is responsible for the supervision of the persons entrusted with the Group's management. The members of the EC are appointed by the Board. The EC is responsible for managing Lonza globally and for implementing policies and strategies as defined by the Board.

Board Oversight

Governance and oversight of sustainability and ESG is the responsibility of the Board, headed by the Chairman of the Board, with specific aspects covered by the Board's committees. The Audit and Compliance Committee (ACC) and their chairpersons oversee the reporting and assurance process for ESG. The Nomination and Compensation Committee (NCC) sets the ESG targets within the Lonza compensation system, and oversees the achievements of such targets on an annual basis. The Innovation and Technology Committee (ITC) reviews innovation and technology at Lonza, including related and relevant ESG developments.

Sustainability Governance Structure



☑> While the Board acts as sponsor and overall owner of the ESG program, implementation is the responsibility of the EC. The Board and its Committees review and endorse Lonza's sustainability program and reporting, including a regular update on status and key performance indicators, such as climate-related risks. The Board also receives regular updates on regulatory and other developments relating to ESG which are of importance to our business and stakeholders. Lonza's climate-related targets and results are discussed several times during the year and at year-end in the context of sustainability reporting. The Board also has oversight of enterprise risks and opportunities that are identified through the company's Enterprise Risk Management program, which are reviewed annually. <☑

Management Oversight

☑> Senior management, and in particular the EC, is responsible for continually monitoring the evolution of risks and opportunities and the risk mitigation progress in the organization. In order for risks to be managed at the appropriate level, the heads of business units, operational units, corporate functions and business services, organizations provide adequate and timely reporting to the EC. The EC escalates information about significant risks to the Board as appropriate. <☑

In addition to this governance structure and under the leadership of the CEO, ☑> the EC is responsible for reviewing and approving the company's sustainability program and agenda, including climate, waste and energy targets. <☑ The EC and Board both receive quarterly updates on the status of environmental target achievements.

The Sustainability and Risk Committee (SRC), led by the Lonza Group General Counsel and Company Secretary, manages identified material topics (as shown in the Materiality Matrix on page 15) and oversees sustainability reporting. Reporting to

Lonza's Group General Counsel, the Head of Global Sustainability and the Head of Global Environment, Health and Safety (EHS) teams are responsible for proposing the corporate sustainability strategy and for implementing the Safety and Sustainability Policy. At a divisional level, sustainability representatives report to each Division Operations Head to support the implementation of ESG initiatives and divisional programs.

Sustainability governance at corporate level is assured by the SRC and the Safety and Sustainability Steering Board (SSSB). The SRC meets on a monthly basis and includes members from Global Sustainability, Ethics & Compliance, EHS, Corporate Responsibility and Enterprise Risk Management. At functional level, the SRC involves delegates from Operations, HR, Communications, and Finance. Its responsibilities include the following:

- Defining Lonza's sustainability strategy implementation and alignment with global functions
- Providing leadership, driving awareness and engagement in sustainability, including changes in the regulatory and reporting landscape
- Overseeing the design and execution of programs aligned with the seven SDGs
- Serving as a link and source of dialogue between internal networks and external stakeholders
- Encouraging sharing of best practice across divisions and functions

☑> The SSSB deals with the operational aspects of safety and sustainability, and meets on a quarterly basis. It includes global leaders from EHS, Sustainability, Operations, Engineering, Procurement, HR, Corporate Responsibility and Enterprise Risk Management, as well as the Head of Group Operations (EC member). <☑ Its responsibilities include:

- Monitoring the EHS and sustainability performance of the group, the divisions and aligning group and divisional targets, programs and initiatives
- Identifying significant operational EHS and sustainability risks, emerging issues, regulatory developments and compliance matters
- Endorsing global EHS and sustainability procedures and standards and ensuring involvement of the business divisions
- Reviewing quarterly audit summaries and significant governmental enforcement notices, citations and actions to drive appropriate corrective actions and programs

"Sustainability has been integrated into the fabric of our business, with clear design principles for our facilities and sustainability targets in our remuneration policies."

Matthias Hofmann
Head Global Sustainability



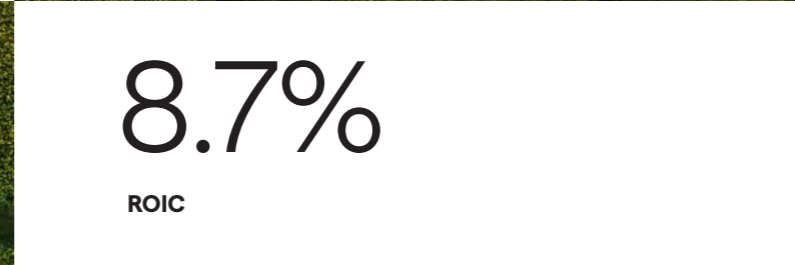
Lonza's Financial Performance 2023

1,999 mio.
CORE EBITDA in CHF

6,717 mio.
Sales in CHF



8.7%
ROIC



29.8%
CORE EBITDA margin



Employee Community



The SRC continues to drive our ESG agenda by working with the Board and EC on the SDG-aligned targets integrated in our compensation framework. The Board and NCC conduct an independent evaluation of the ESG program on an annual basis, with a direct impact on compensation.

☑️ The Annual General Meeting (AGM) is an opportunity for our shareholders to provide feedback. The election or re-election of each Board member provides an evaluation of Board performance. ☑️ The Sustainability Report is issued with the Annual Report ahead of the AGM and is reviewed by the NCC and the ACC, with final approval by the Board. The report is assured in relevant parts by the Auditors applying a limited assurance process. At the AGM 2024, our shareholders will have the opportunity to vote on non-financial disclosures with respect to the Swiss legal requirements (Art. 964b CO) for the first time.

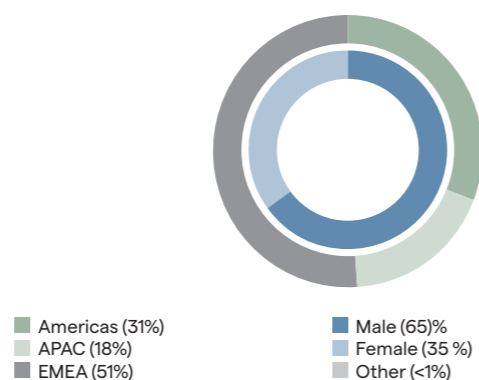
Further details on corporate governance and the group structure can be found in the [Corporate Governance](#) section of our 2023 Annual Report.

Employee Community

Our employee population grew to approximately 18,000¹ colleagues by the end of 2023. Within the same period, our total turnover rate went down from 12.8% in 2022 to 10.5% in 2023. We maintained a strong focus on onboarding, training and development of our new employees, ensuring that colleagues feel supported to grow, stay and develop with Lonza. Through enhanced dashboards, people managers can access vital information to manage their team's success.

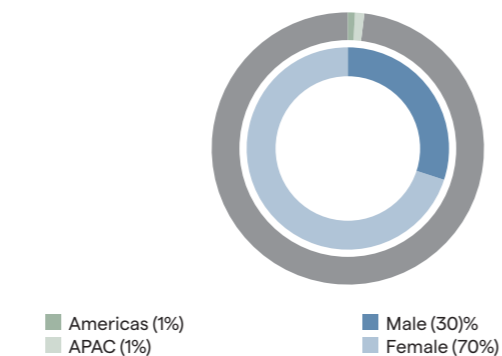
¹ Number in Full-Time Equivalents. Total employee headcount is 18,245 including temporary fixed-term contractors but excluding agency workers and consultants. The remaining statistics and numbers in this section refer to headcount.

Full-time Employees 17,363



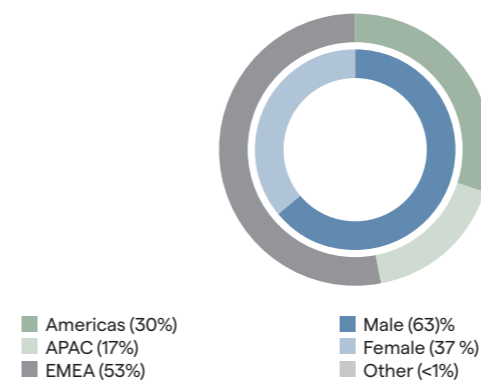
Headcount

Part-time Employees 882



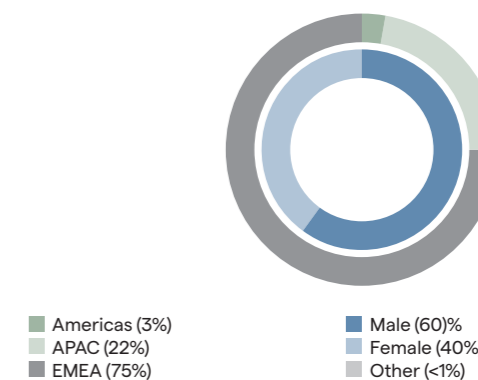
Headcount

Permanent Employees 18,050



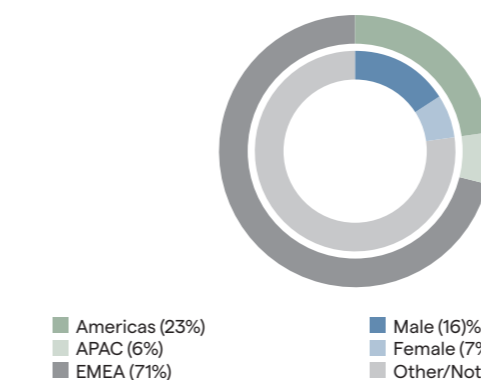
Includes regular employees, those on collective agreements and international assignees (headcount)

Temporary Employees 587



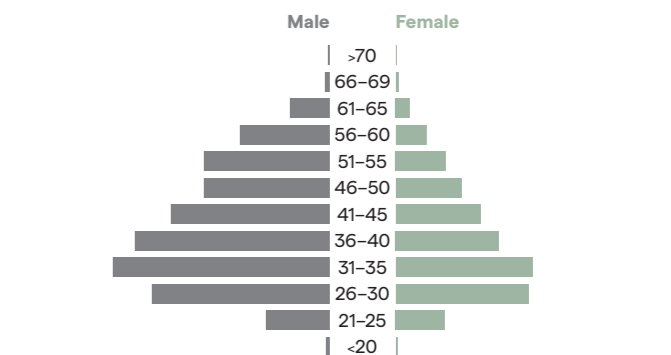
Includes employees on fixed-term contract, interns and trainees (headcount)

Contingent Workers 5,218



Includes consultants, external contractors, outsourced service providers and agency staff (headcount)

Broad Balance Across Age Groups



Lonza allows employees to identify as male, female, transgender or to choose not to disclose. 29 employees identified as transgender or chose not to disclose in 2023

Our Workforce

		2022	2023
Gender (headcount)	Male	11,271	11,535
	Female	6,432	6,681
Region (headcount)	Americas	5,257	5,348
	EMEA	9,352	9,763
	APAC	3,105	3,134
Hires (headcount)		3,585	2,447
Hires by Region (headcount)	Americas	1,282	833
	EMEA	1,805	1,323
	APAC	498	291
Total Turnover (%)		12.8%	10.5%
Total Turnover by Region (headcount)	Americas	881	740
	EMEA	958	911
	APAC	351	234
Voluntary Turnover (%)	Managers	11.1%	7.2%
	Non-managers	9.3%	8.6%
Involuntary Turnover (%)	Managers	2.2%	1.4%
	Non-managers	1.4%	2.4%

Our Stakeholders

We have identified all relevant stakeholder groups who may have a vested interest in our performance and can directly or indirectly influence the direction of the company. We see international organizations such as the UN as authorities, and the relevant agreements between states as a guideline for the industry. Our material topics and the selected SDGs guide and direct our corporate goals and approach to sustainability.

Engagement is key to understanding stakeholders' expectations. The table below summarizes how we engage with our main stakeholder groups.

Stakeholder	Engagement
Employees	We hold regular employee events and townhalls. Our global Voice of Employee (VoE) employee engagement survey was conducted twice during the year (see more information in our People and Society chapters). In 2023, we continued to assess and develop our channels of communication to and between employees. Examples include the introduction of a new and improved global intranet which enables increased dialogue among the Lonza employee community. Additionally, we created videos in which EC members directly addressed questions and comments from employees.
Employee Associations and Unions	All Lonza employees are free to join a union or similar association. We do not track union membership or discriminate against employees with memberships. Around 12% of our total global workforce is subject to a collective bargaining agreement. In addition, many employees are based in locations with national or industry labor contract frameworks, which typically define minimum wage and wage increases, and give guidance for the formation of works councils. We actively partner with works councils on the development and deployment of global and local employment policies. Alongside country-specific employee representation, we have established a European Works Council (EWC) that holds regular meetings. The EWC's 2023 annual meeting took place in person with senior Lonza leaders including members of the EC. It included an update on Lonza's business and people strategy. Ad hoc sessions with local representatives took place during the year to update Council members on people-related topics.
Customers and healthcare partners	We maintain regular contact with our customers through our sales teams at a divisional level and through direct contact with the sustainability team and Lonza Group leadership. During 2023, we ran the Lonza Promoter Score (LPS) survey for the fourth consecutive year, with more than 1,500 responses. The survey provides a quantifiable and consistent measure of customer engagement across Lonza. The LPS survey supports our work relating to SDG 3 (Good Health and Wellbeing) by measuring the satisfaction of our customers who deliver life-saving and life-enhancing medicines to their patients. The survey found that our customers continue to value our highly skilled employee community and the quality of our services and products. This feedback was consistent across our customer base.
Suppliers and business partners	We engage with suppliers and conduct risk assessments, focusing on ESG aspects. This includes the role of our suppliers and business partners in the decarbonization of our supply chain (see Responsible Sourcing chapter). Every year we also attend in excess of 100 tradeshows and in-person events for the pharmaceutical and nutrition industry, including CPhI Worldwide, DCAT and BIO International. These global and regional events give us an opportunity to interact with new and existing customers, present on thought leadership topics and meet suppliers and industry groups.
Shareholders and investors	In 2023, more than a hundred virtual and face-to-face meetings took place with shareholders, key proxy advisors, rating partners, and ESG analysts to discuss corporate governance, compensation, sustainability and other relevant topics. Our financial reporting milestones provide regular opportunities for engagement with shareholders. After every Half Year and Full Year report, Lonza hosted roadshows in Zurich, London, Boston and New York to engage with investors in person. In May 2023, we hosted our Annual General Meeting (AGM) at the Congress Center in Basel (CH). More than 60% of Lonza's share capital was represented, and all motions proposed by the Board of Directors were accepted. Additionally, in October 2023 we hosted Capital Markets Day at our site in Visp (CH), which included a business strategy update and a tour of our biopark facilities. Shareholders not attending in person had the opportunity to watch the presentations via a livestream, and were able to ask questions as part of the open discussion at the end of the presentation.
Society	Our entities and sites regularly engage with their relevant stakeholders on a local level and incorporate their requirements for site development, though not necessarily in a formalized manner. We are active on relevant and useful social media platforms, through which we can engage in conversations and receive feedback from individuals or groups. In August, we hosted a groundbreaking event for a new large-scale manufacturing facility at our site in Portsmouth (US) in collaboration with our customer, Vertex. Lonza and Vertex's leadership teams were joined at the event by several New Hampshire government officials and members of Type 1 Diabetes patient groups that may be supported by future Vertex treatments.
Associations	Lonza joined the United Nations Global Compact (UNGC) in 2009 and is an ambassador of the program for Switzerland and Liechtenstein. We are committed to aligning our business and operations with its universally accepted principles of sustainable development. This encompasses the areas of human and labor rights, anti-corruption and environmental sustainability. We are committed to implementing the UN Global Compact's Ten Principles, in order to uphold our responsibilities to people and planet and set the stage for long-term success. Lonza has been a member of the non-profit business membership organization Pharmaceutical Supply Chain Initiative (PSCI) since 2019. PSCI brings together the pharmaceutical industry to define, implement and champion responsible supply chain practice. We engage in several PSCI committees and we have embedded its principles into our Supplier Code of Conduct. We are a member of various associations in the pharmaceutical and biopharmaceutical industry sectors, as well as in the wider business community, including: Scienceindustries , SwissHoldings , Biophorum Operations Group , Drug, Chemical and Associated Technologies Association , International Society for Cellular Therapy , International Society for Pharmaceutical Engineering , Parenteral Drug Association , American Society for Quality , Alliance for Regenerative Medicine , Association A3P , Together for Sustainability and Rx-360 Consortium .
Regulators	There is increasing ESG regulation in countries where we are active. We work with trade associations, such as Scienceindustries and SwissHoldings, to participate in consultation processes for upcoming regulations. We also work alongside industry working groups and participate in industry initiatives (see Associations section) to define common implementation pathways.

Materiality

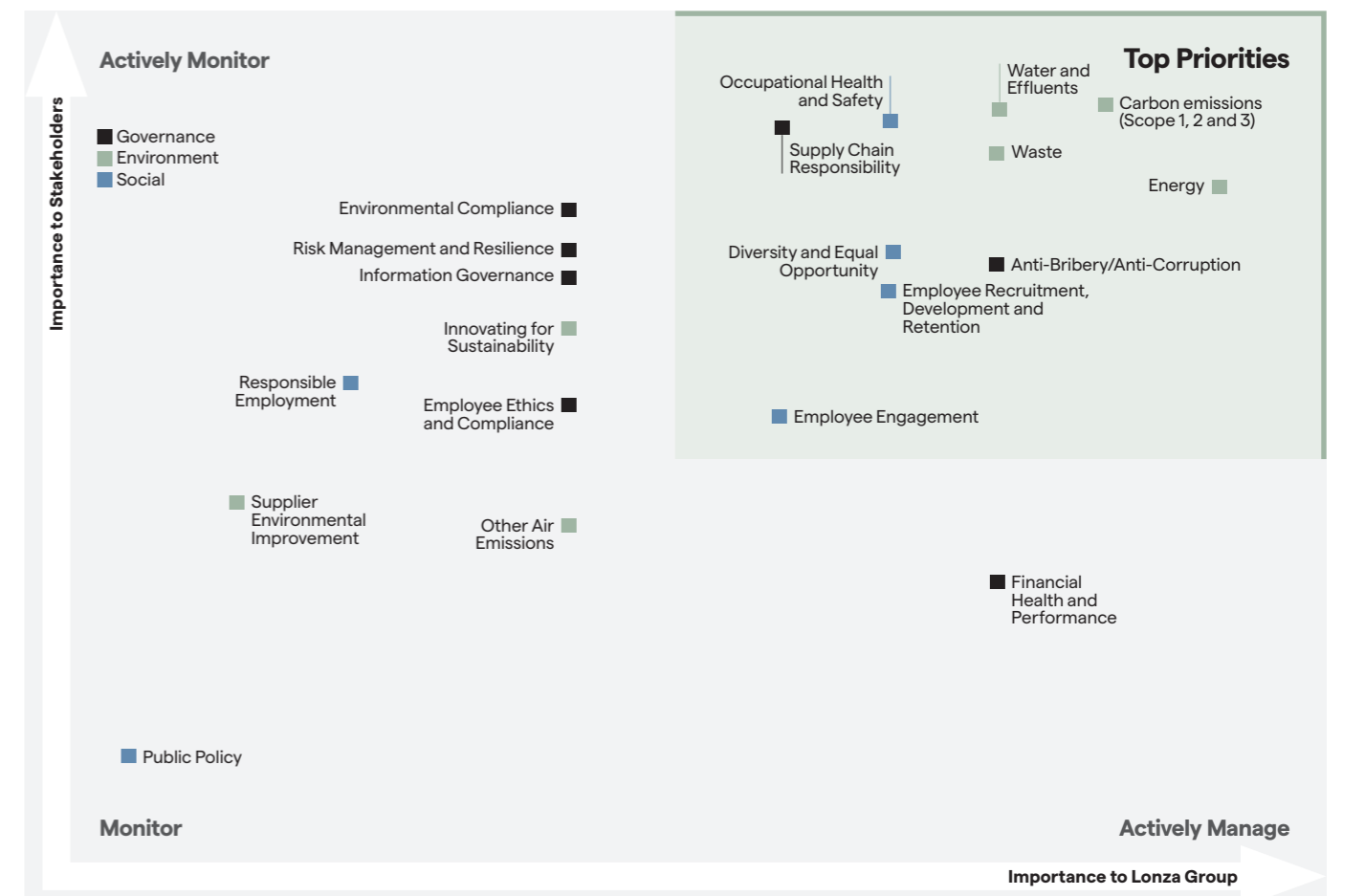
🕒 In 2021, we undertook a materiality assessment to define sustainability topics relevant to the company and to better understand the requirements and priorities of key stakeholder groups. Specifically, we engaged cross-functional and cross-regional employees, customer contacts, the scientific community, shareholders, proxy advisors, financial analysts, Group Management and the Board of Directors into the selection and prioritization.

The survey started with a long list of topics from the Global Reporting Initiative standards (GRI) and SASB, alongside major sustainability topics raised by our stakeholders, from benchmarking, current and future legislation, criteria considered by analysts, social and digital media analysis results, as well as a benchmarking assessment of industry value chain companies. We then shortlisted these topics using the following criteria:

- Relevance to our business
- Actual and potential size of impacts (e.g., physical, reputational)
- Our potential to influence the impact or the topic
- Significance or extent of the impact on our business

Our assessment and the priorities were validated by the Sustainability and Risk Committee and by Group Management, and verified using input from other external stakeholders, e.g. customer sustainability functions, delivering similar results. The 2023 Sustainability Report focuses on the top quadrant topics visualized in the matrix below. The moderate and low rated topics are not systematically covered in this report but are nonetheless monitored on a regular basis in the functional reviews, e.g. in HR, EHS & Sustainability, Ethics and Compliance.

Newly identified topics and upcoming ESG regulatory requirements are analyzed, prioritized and integrated, based on their relevance. Our ongoing dialogue with internal and external stakeholders, specifically with sustainability experts of financial and proxy advisors and with industry insiders, help us to refine material topics. In the upcoming reporting period, we will be reviewing the materiality topics applying the 'double materiality' concept, as defined by the European Sustainability Reporting Standards. 🕒



Responsibility

Every day, our products and services have a positive impact on a large number of people's lives. As much as this is a great privilege, it is also a great responsibility. Responsible business is both an ethical and a business imperative for Lonza.

Our purpose to enable a healthier world includes our responsibilities across environmental, social and governance areas. We are committed to ethical business practices and sustainability in how we work. Every employee is trained regularly to fully understand and uphold these principles.

Our respect for human rights is evident in all we do. We take an active approach to provide value to stakeholders, our partnerships and our community involvement initiatives, generating sustainable value for society. We are contributing to communities, employees, customers, shareholders and suppliers. Inclusion and diversity, and integrity are high values and abundance is monitored in our premises and supply chain through assessments, surveys, data analytics and evaluations.

Risk Management

We apply the precautionary principle within a systematic risk management framework across our activities. Risk management is a process applied at both a micro and macro level – from the manufacturing floor of a single site to the whole Lonza Group. Selected elements include:

- Job safety analysis, technical safety reviews of equipment
- Process hazard analysis, audits and inspections
- Site risk analysis, including fire safety, natural risk, climate change and interruption risk
- Supply chain risk analysis
- Enterprise risk management (ERM)

Any result of these risk assessments will be resolved at the appropriate level and mitigations and controls will be installed. For the larger risks we maintain a crisis management organization and escalation procedure responding to situations which can affect the Group.

Enterprise Risk Management (ERM)

Our ERM program is a critical element of our risk management and strategic planning activities, by providing a mechanism and appropriate governance for risk management. We have leveraged the methodology of our ERM processes to develop a holistic, Group-level risk management program. This enables us to identify the most significant risks to our organization that impact value to our stakeholders, including risks relating to macroeconomics and geopolitics, climate change, compliance and human rights, along with mitigation plans to minimize the probability and/or impact of such risks. The annual ERM process includes the following elements:

Lonza Enterprise Risk Management

Risk Identification	Trend Analysis	Calibration and Mitigation Planning	Reporting to Executive Committee	Reporting to Board of Directors
We identify risks using internal and external data analytics and resources. We have discussions with risk owners and incorporate anticipatory risks identified through climate, social and other data trends.	Our ERM team consolidates input, assesses the risks and maps probability and impact versus prior year.	We conduct calibration workshops with senior leadership teams and ensure appropriate mitigation measures are in place. Mitigation measure owners report status of their measures quarterly.	We report findings to the Executive Committee for evaluation and alignment with strategic planning.	We report top risks and mitigation plans to the Board of Directors and its Audit Committee to ensure awareness and appropriate oversight.

Lonza's EC has direct involvement in the ERM program. At the EC's direction, the Head of Ethics & Compliance, ERM and Corporate Responsibility is responsible for mapping and reporting all enterprise risks and mitigation measures including those related to environmental and social topics. The EC is responsible for implementing actions to reduce the likelihood of occurrence and potential impact of risks, and considering opportunities as part of longer-term strategy development.

The findings of the ERM program are presented to the Audit Committee and the Board, who have oversight responsibility. ESG topics are considered in the company's enterprise risk assessment, including climate change, human rights, geopolitical and macroeconomic shifts, as well as trends such as aging societies, growing populations and the increasing need for access to healthcare and medicines. For more information about ERM, see the [Financial Statements](#) section of our 2023 Annual Report.

Climate Change Impact Analysis

Lonza Group, its stakeholders and investors seek an understanding of mid-term climate related potential effects and impacts on the business and operations of the company. In addition, legislation requires information on these topics to be disclosed, specifically in Swiss and European regulations. Swiss public companies are obliged to start assessing and evaluating potential effects. The Task Force on Climate-related Financial Disclosures (TCFD) provides a reference framework for assessing and disclosing climate-related effects, risks and opportunities.

The governance of the process is identical with the ERM as we embed this analysis into the Risk Management process. Assessing and mitigating the impact of climate change is reflected in our climate action plan of reducing our GHG footprint (Scopes 1, 2 and 3), the strategy of which can be found in the respective chapter. Potential impacts and mitigations can be found exemplified below. The evaluation, the metrics and targets are based on relevant scenarios which we describe below, e.g. the Intergovernmental Panel on Climate Change (IPCC) climate scenarios, the IEA (International Energy Agency) projections, our site related translation of these trends and the valuation of these effects.

To assess our operations, we piloted the application of a site-level TCFD Climate Risk Assessment in two major Lonza sites, leveraging site specific climate intelligence reports (Munich Re, Location Risk Intelligence Platform). These reports discuss the modelled changes in physical risks for defined geo-locations over the coming 30 years. We centred attention on climate and temperature change consequences of two IPCC GHG increase scenarios: Representative Concentration Pathway (RCP) 4.5 and RCP 8.5. In principle these reflect ~2°C and >4°C global mean temperature increases (see below for description narratives).

☞ We then hosted workshops with experts from ERM and the sites, which began with a training and education session on the methodology, key terms, a review of projected climate

impacts and the chosen scenarios. This was followed by a guided identification of risk and opportunities according to local conditions. ☺ In a second phase, risks were evaluated and ranked. The outputs were used to develop a master list of most prominent risks and opportunities, which will be reviewed and evaluated across our remaining top sites to identify and evaluate the most common and meaningful risk and opportunities to our business. In a next step, we will also quantify the climate-change effects along those projections.

Description of the IPCC climate scenarios

RCP 4.5 involves a scenario with moderate levels of GHG emissions, in which emissions peak in 2040 and then decline. This scenario requires considerable interventions on behalf of governments and society to achieve a reduction of emissions, and consequently brings about greater transition risks associated with navigating these interventions. Transition risks are related to the adjustment towards a lower-carbon economy, such as changes in policy, legal, technology, and market conditions.

RCP 8.5 is a scenario with high GHG emissions, in which emissions do not peak and continue to rise. This scenario emphasizes more on physical risks like extreme weather events, sea-level rise, and other climate-related consequences that can have direct or indirect physical impacts on our assets, supply chain and people. The scenario assumes no or less action is taken to inhibit GHG emissions and subsequently we deal with more frequent and severe weather events with long-term impacts.

Embedding climate change into ERM and Business

Continuity Planning

The climate change risk management process is embedded into our ERM governance framework and follows the same structure. Once we have completed all baseline assessments, we will define the review cycle to ensure it aligns with the release of new climate change forecasts provided by the IPCC.

We believe that probable mid-term climate risks are country-specific regulatory changes, physical hazards, natural disasters and extreme weather events, such as hurricanes, floods and wildfires. Today, the known and anticipated risks are managed by site business continuity plans (BCP). These plans will be enriched with climate effects which have been elaborated during the site-workshops and reflect a longer timeline and response planning.

Longer-term implications of climate change are relevant for site development plans, such as limitations to water availability, storm frequencies, wastewater disposal limitations, and flooding. Through the TCFD guided analysis program, we have now started to include long-term climate risk scenario planning within our risk management and business continuity management frameworks. We have also assessed opportunities from climate change and we specifically highlight resource efficiency and energy sourcing, increased resilience and response to market expectations as drivers.

Climate Risk Overview and Evaluation

Our climate change procedure identified the following risks and opportunities which we elaborated upon, and used to evaluate impacts at our two pilot sites. At a Group level, we have committed to reduce our Scope 1 and 2 GHG footprint and to manage our Scope 3 emissions aligned with the SBTi-requirements. This Climate Plan, its metrics and targets are described in the GHG Emissions chapter, and is the main risk reduction and mitigation element on a Group level.

● **Acute Physical Risk**

Extreme weather events, such as hurricanes, floods, droughts and fires, can seriously affect the company's operations, suppliers and supply chain processes. However, the additional contribution of adverse effects induced by climate change is uncertain, but we expect an increase in frequency, intensity or both under certain conditions. We have been specifically evaluating the risks of tropical cyclones, extratropical storms, hail, tornados, lightning, river floods, flash floods, storm surges and wildfires.

Our manufacturing sites engage in contingency planning and have established backup systems and alternatives in place. These measures enable sites to make informed decisions on the acceptable level of risk and the physical investments needed to address such risks as part of our BCP.

Lonza sites require freshwater for manufacturing and also use water for cooling. Increased temperatures can reduce cooling capacity or quantitative limits on water intake (physically or by permitted levels). Water risks are local, and therefore must be addressed by sites as part of their BCP and sustainability roadmaps. This can include recirculating cooling water and re-using reject water from quality water systems.

Exposure to flooding risk at our Visp manufacturing complex in Switzerland, for example, has been drastically reduced with the completion of the correction of the Rhone river. The river bed now provides for almost full high water capacity. The multi-year regional project was financed and executed by the state and supported by public funding on a national level. A minor probability of flooding at our Visp site could still lead to business interruption for a limited time. The risk is known and evaluated, and the necessary contingency plans exist and are ready to be activated.

● **Chronic Physical Risk**

Longer-term shifts in climate patterns (like rising sea levels or temperature changes) may cause gradual shifts in business operations. In one of our piloted sites, a mid-term risk was identified in having sufficient cooling potential to reject heat and maintain production during periods of prolonged higher ambient temperatures, like in the RCP 8.5 scenario. The site is now reviewing its cooling and building insulation set-up to prevent shortfalls. As illustrated, use of IPCC scenarios RCP 4.5 and RCP 8.5 in planning and strategy development helps sites prepare for and adapt to these long-term changes. Specifically, we reviewed the risks of river flooding, sea level rise, precipitation, heat, drought stress, annual maximum temperature, fire season duration, and maximum five days precipitation.

● **Transition Risks – Policy and Legal**

The main regulatory risks identified concern the potential revision of existing law and uncertainty of developing laws regarding carbon tax and other instruments, such as new or changing cap and trade systems. In the European Union and Switzerland, changes could increase the price of carbon certificates and decrease the amount of free allowances granted. In other geographies, new carbon pricing policies are planned or are being implemented in the near future.

These changes could affect Lonza's operations directly or indirectly, leading to an increase in operating costs and additional management focus and efforts including monitoring, reporting and verification. In addition, due to the different timing at which regional legislation is put in place, policy asymmetry is expected in the short and medium term.

A further increase in fuel and energy costs is expected and recognized by our business strategies, and we consider the risks as part of our annual ERM program. The risks of an energy price increase apply worldwide to a varying degree, with more exposed operations in Europe. It is expected that energy efficiency regulations will become more stringent and increasingly be integrated into environmental legislation. At the same time, planning will remain challenging as the volatility in political decision-making may increase.

It is difficult to project the financial implications of carbon taxes. Fuel and energy taxes, as well as regulations, could have a financial impact. The expansion of schemes into other legislations will require additional management focus, and efforts to align with suppliers will also take time and resources.

● **Technology Risks**

Due to specialized production equipment and processes, assessments to date have not revealed any significant technology risks (i.e., obsolescence) associated with transitioning to a lower carbon economy. Switching to renewable power with specific processes, such as converting steam generation from natural gas to renewable electricity, will involve a significant increase in electrical energy demand and on the external connectivity. Whilst such a change would pose no significant risk to Lonza, in some locations, local power infrastructure could not provide for such significant growth in consumption. This will require careful planning and cooperation with power companies to enable capacity improvements relating to the transition to green power.

● **Reputation and Market Risks**

Our customer relations and market capitalization are also increasingly influenced by our sustainability performance. Failure to achieve expectations could harm the company's reputation and impact customer trust. To provide transparency and accountability to our stakeholders, we report on sustainability according to GRI standards, we have established comprehensive ESG targets and we are in regular contact with customers, investors, and advisors.

In a mid-term and long-term RCP 8.5 scenario, we identified a potential reputational risk arising from competition for water resources with local communities in times of scarcity, in areas that may suffer from periods of water scarcity exacerbated by climate change. Water efficiency projects are integral to achieving of our 2030 sustainability goals and are being factored into site master plans accordingly to mitigate this risk.

● **Opportunities**

We also assessed opportunities from climate change, such as resource efficiency and energy sourcing, increased resilience and response to market expectations.

We unlock innovation potential through the introduction of water and energy efficient technologies, alternative technologies and cooperation with external companies. For instance, we are using excess steam from external waste incinerators to substitute fossil fuels at our production complexes in Visp (CH) and Colmar (FR). The installation of solar panels in various sites has been completed. We are contracting with renewable power companies to add capacity to the supply and co-operate with partners in alternative fuels such as biomass heat production. Energy efficiency also decreases costs and emissions, and our exposure to future carbon pricing schemes.

Relevant Chronic Physical Risks for our Two Pilot Sites

	Time	Likelihood	Impact	Magnitude	Action
Increase in number of heat days	Medium-term	High	Cooling impairment	Medium	Building shell, cooling technology
Risk	Heat day increases can impair production and storage in biopharma operations.				
Action	Designing and implementing technical solutions around building insulation, heat management, cooling technology to mitigate impairment of operations. These actions can be implemented during regular building upgrades and new building designs.				
Water stress	Medium-term	Medium	Availability	Medium	Water recycling, rainwater harvesting
Risk	Reduced water availability or reduced treatment availability, and water competition.				
Action	Developing alternative water sourcing (e.g. rainwater harvesting) and recycling technology, setting water reduction target, water management projects and expert group.				

Relevant Transition Risk for Lonza Group

	Time	Likelihood	Impact	Magnitude	Action
Carbon pricing legislation	Medium-term	Very likely	Cost increase	Medium	Scope 1 and 2 reduction
Risk	A carbon price increase is expected across global legislations, with varying timelines. The IEA Global Energy and Climate model projects CO ₂ -prices of > CHF 100 for regions in which Lonza operates. This could result in cost increases for OPEX, raw materials, transportation.				
Action	Lonza is actively pursuing a GHG reduction strategy described in the GHG-chapters, which will mitigate the business' exposure to increased CO ₂ -prices. Total exposure in 2030 could amount to between CHF 25-35m, based on fossil fuel consumption and emission factors.				

Cybersecurity

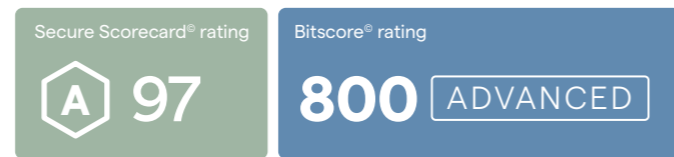
Information and data security is a priority for our business. It enables us to maintain constant availability of our critical systems and to protect our information, including information entrusted to us by our customers and partners.

Our IT Security department continually strives to improve the technical, procedural and organizational safeguards for our information and manufacturing systems, including continuous monitoring and testing for potential security weaknesses. The department also provides training to our employees and contingent workers to raise awareness about how they contribute to the security of our information assets. The IT Security team's activities in 2023 included:

- Continued expansion, enhancement and measurement of governance and policies, based on international standards
- Implementing a robust, user-friendly and scalable security architecture, including solutions and services
- Continued optimization of the security operations service, rapid response capabilities and risk awareness
- Continued investment in the latest recovery technologies to further enhance our resilience
- Minimization of possible business disruption
- Empowering colleagues to work securely and effectively in an internationally collaborative environment

Our IT Security strategy includes implementing holistic, preventive, detective, and responsive measures in line with the relevant risk levels. We provide risk assessments, contribute to enterprise risk management and define security and IT control requirements for projects and risk remediation measures. Additionally, we promote compliance with applicable laws and regulations in collaboration with Legal, Quality Assurance and other departments.

We run ongoing training and awareness programs about IT security. The latest internal surveys indicate that more than 95% of our colleagues are aware of their critical role in protecting our information. New, innovative technologies and methods are utilized to ensure this awareness remains high, without reducing the impact of the message.



Our information security ratings have remained above average for the industry for several years. These ratings² are provided by independent organizations based on a technical analysis of our assets and provide a snapshot of cybersecurity risk.

² BitSight uses a credit rating style measurement to communicate IT Security Risk. BitSight Security Ratings are calculated on a scale of 250-900, with a higher rating indicating better security performance. Secure Scorecard uses a combination of data points and then applies proprietary algorithms to rate security effectiveness with a quantifiable A-F score.

Measures and Activities to Enhance IT Security

SECURE LONZA	Preventive Measures <ul style="list-style-type: none"> • Enhanced Technical Standards • Various countermeasures in place to address modern threats 	Incident Response <ul style="list-style-type: none"> • Data Breach Response Plans • Security Incident Response Plans • Active Security Operations Center monitoring and Response team 	Testing <ul style="list-style-type: none"> • Penetration tests on critical externally facing websites • Phishing and other active tests • Compliance testing and assessments • Vulnerability tests and mitigation
	Training <ul style="list-style-type: none"> • Security Fundamentals • Data Privacy • Periodic Awareness Updates, E-trainings, simulated phishing and on-site trainings 	Policy and Framework <ul style="list-style-type: none"> • Framework for IT Security and Compliance • Technology Standards • Processes and Procedures 	Governance <ul style="list-style-type: none"> • Active Internal Compliance Committees with representatives from across the business • Periodic Executive Committee and Audit and Compliance Committee briefings

Data Protection

We take data protection very seriously across our global network. Our guiding principle is the General Data Protection Regulation (GDPR), in addition to any national law of those countries in which we operate. Every employee commits to follow our Internal Data Protection Guidelines. These guidelines are included in our compulsory Code of Conduct training.

The protection of our employees' and customers' personal data is critical to maintaining trust, reputation and license to operate. It has long been a focus for the Privacy Taskforce, which meets monthly to address concerns and developing issues. Taskforce members include our Data Protection Officer and dedicated members from across our divisions, sites and functions, including colleagues from the Legal, IT and Marketing departments.

The privacy and cookie policies for our website are updated regularly to provide our customers and website visitors with optimal levels of choice and safety.

Ethics and Compliance

Our Code of Conduct provides behavioral guidance and expectations to help all colleagues understand that doing what is right everyday matters. The key pillars of our Ethics and Compliance program are as follows:

Ethics and Compliance Program



Trainings and communications are planned with a focus on the audience, topic, and modality. These are risk-led, selected, and disseminated based on changes in regulatory environments and stakeholder expectations. They include our ESG materiality assessment process, as well as internal reviews of our data analytics on misconduct trends and reporting. The schedule is flexible, allowing for quick adaptation to any changes in the environment, while ensuring that additional site specific requests and detailed business unit trainings can be delivered quickly to relevant teams. Some training programs are provided annually.

All colleagues and contract workers are required to complete Code of Conduct training annually, up to and including our EC and our Board. This includes a confirmation by our colleagues and certain contract workers that they have read and understand the Code, which consists of requirements to follow not only our policies but also the laws governing our operations in the geographies in which we have a presence, as well as a signed integrity pledge. We target our web-based training for ethics and compliance courses at 100% completion. In addition, we work closely with site HR teams to ensure that colleagues and contract workers without frequent computer access are still able to participate.

Our internal communications plan reinforces the training topics by demonstrating our commitment from senior leadership. It also includes examples of acting with integrity and speaking up through employee spotlights and provides resources and tools to managers for use in their day to day tasks.

Respect for Human Rights in Our Own Operations

Respect for human rights is an essential pillar of our ways of working, beginning with our purpose of enabling a healthier world and flowing through our programs and initiatives, including our commitment to a safe workplace, the wellbeing of our colleagues, prohibition of child labor, quality education for our current and future colleagues, a diverse and inclusive workforce, freedom of association and right to collective bargaining and equal pay for equal work, among others. ☺ In 2023, we adopted Human Rights Principles as an extension of our long-standing guidance providing for the respect for human rights in our Code of Conduct. These principles reinforce Lonza's commitment to respect all internationally recognized human rights that are relevant to our operations. Lonza's Human Rights Principles make clear our practices and provide reporting guidance for prohibited conduct. These principles reflect our support of the UNGC principles, the International Labor Organization (ILO), and the Organization for Economic Cooperation and Development's Guidance (OECD) for Responsible Business. <☺

In addition to the programs which demonstrate our respect for human rights, we have programs in place to identify and mitigate risks associated with human rights, including risks related to child labor. We begin with standardized hiring practices by country to ensure employees are suitable for work. We utilize our enterprise risk management program, which assesses the most significant risks to our organization that impact value to our stakeholders, along with mitigation plans to minimize the probability and/or impact. Our Ethics and Compliance Hotline and Disclosure system allows for reporting of wrongdoing related to any topic, including child labor.

This year, we also initiated a formalized human rights impact assessment process to ensure respect for human rights throughout our operations and to take action to mitigate any material risks. This assessment utilizes UNGC resources and focuses on workplace health and safety, wages, fair treatment and community impacts. This assessment will be completed in early 2024. Certain employees also received targeted human rights training in 2023.

Lonza Ethics and Compliance Hotline

	2021	2022	2023
Number of reports per 1,000 employees ³	12.6	11.3	14.3
% of reports which are only inquiries	29%	28%	18%
Substantiation rate ^{4,5}	38%	36%	28%
Anonymity rate ⁵	33%	21%	36%

Lonza Ethics and Compliance Hotline and Disclosure System

The Lonza Ethics and Compliance Hotline and Disclosure system ("the Hotline") allows employees and third-party stakeholders globally to report concerns anonymously (if allowed by their jurisdiction), including those related to ethics and compliance and ESG matters for our own operations and supply chain. On average, around three in ten reports are partially or fully substantiated. Root cause analyses are performed and remediation actions are taken for substantiated allegations of wrongdoing. Those found responsible for wrongdoing face disciplinary action, which may include termination of employment or contractual relationship with Lonza.

The Ethics and Compliance Group regularly conducts assessments of hotline submissions for trending, benchmarking and risk assessment purposes. Data generated from these assessments are used to guide training and communications for certain geographies or business units, and to measure the effectiveness of existing training, policies or procedures. A wide range of case submissions indicates an awareness and comfort in speaking up across all aspects of the business. An increasing tendency to use electronic methods for sharing concerns has also been noted. For example, colleagues use the web platform twice as often than reporting concerns by telephone.

Each year, we benchmark our reporting data against other companies similar in size, industry, revenue and geographic location. Multiple data points (e.g., submission type, disclosure of the reporter, source of the report, etc.) are consistently reviewed to measure the effectiveness of the Hotline and investigation. Areas that do not meet our expectations or benchmark standards are addressed via targeted training and communications programs, as well as enhancements to the overall Ethics and Compliance program.

The Hotline also serves as our disclosure system for conflicts of interest, where employees and third parties can disclose potential or actual conflicts of interest. All allegations of wrongdoing or disclosures of conflicts are received, evaluated and addressed by the Ethics and Compliance Group.

³ Employees indicates headcount of employees (regular, collective agreement, international assignees and temporary employees, excluding interns and Board members) and does not include contingent workers. Figures from 2021 and 2022 are restated with this headcount figure as of December 31 of each calendar year.
⁴ Substantiation rate includes cases which included partially or fully substantiated allegations.
⁵ Substantiation rate and anonymity rate from 2022 are restated due to removal of two internal test cases from our reporting figures.

Regulatory Compliance

We are committed to regulatory compliance and ethical behavior across all areas of our business and operations. As our industry is highly regulated, we are frequently inspected by various regulatory authorities, certification bodies and customers. In addition, regular internal audits of various functions and processes occur at both the local and global level (e.g., EHS audit, loss prevention visits, quality audits). Any findings during these inspections or internal audits are addressed and used to drive continuous improvement in our processes and procedures.

In 2023, our sites underwent 27 authority inspections. In line with the increase in commercial development and production and a growing service portfolio, the number of customer audits continued to increase. Regular inspections and audits are a valuable feedback mechanism to support continued compliance across the company.

EHS compliance is also critical to our operations. Each site employs a management system approach, which includes regular information updates on legal changes and a compliance assurance mechanism with internal and external controls. Various sites have implemented a certified ISO 14001 system, which includes oversight of regulatory requirements. Additionally, we received assurance from a Swiss certification body that our Corporate EHS management system is fully aligned with ISO 14001 and ISO 45001 standard requirements.

Product Compliance

All of our product manufacturing practices are highly regulated to ensure the required standards of performance, quality and efficacy are met. All products must be evaluated, manufactured and labeled appropriately, and adequate instruction provided to end-users to exclude health and safety risks for customers and consumers.

Our product development and manufacturing expertise, regulatory assurance and global regulatory support provide distinct competitive advantages in an environment of increasing registration, labeling and packaging requirements. Our expertise in the pharma, biotech and nutrition markets supports the services and products that we provide from early phase to commercialization. We have a team of more than 90 regulatory experts in Europe, the Americas and Asia Pacific who serve and support our business globally.

Our processes for assessing ongoing regulatory compliance and improving the health and safety impacts of our products remain a focus for growth and investment. This is particularly important as we continue to integrate newly acquired products and businesses into our stewardship and management structures. All equipment manufactured by our business is assessed in line with regional requirements for compliance to applicable safety and conformity standards.

We are a business-to-business company. We work to ensure that our customers can safely use our products for their intended purpose. Generally, our customers also have their own procedures and specialists to assess risks, and we aim to provide the foundation and necessary data to support the safe use of their products.

For our products, health and safety profiles are evaluated through systematic processes and procedures that are embedded in our organizational and business structure. We have experts in regulatory compliance and registration, dangerous goods and product classifications, toxicology, risk assessment and product stewardship covering the regions and markets in which we operate. Potential hazards and risks associated with the intended use of our products are clearly communicated to customers via product labels, safety data sheets (SDS) and technical communications.

Relevant programs for the handling of chemicals include the European Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) initiative, the US EPA Toxic Substances Control Act (TSCA) and the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65). Other countries are launching similar regulatory schemes, such as China-REACH, Korea K-REACH, Turkey KKDİK and UK-REACH. These are ongoing efforts, and we strive to comply with requirements, including those related to REACH substances of very high concern (SVHC). In addition, we use the Globally Harmonized System (GHS) for the classification, labeling and packaging of chemicals.

Animal Testing

We do not have own animal testing facilities or the capability to conduct animal studies. Wherever possible, we use validated alternatives to animal testing. We have developed alternatives including the primary cell and media product lines, which can replace animal models in research and development labs. Our products are evaluated to ensure the protection of human health and the environment in accordance with ECHA guidelines to avoid unnecessary animal testing and consider alternative test methods.

Many regulatory authorities continue to require animal testing to verify the safety of products such as health ingredients. In such cases, we carefully select independent contract laboratories that meet the highest ethical and quality standards and are accredited for animal welfare protection. All animal testing is conducted with oversight to ensure compliance to animal welfare considerations and all study protocols are approved by the Institutional Ethics Board and the Institutional Animal Care and Use Committee (IACUC).

		2023
EC and Board members to whom policies and anti-corruption procedures are communicated		15 / 100%
Employees to whom policies and anti-corruption procedures are communicated		18,114 ⁶ / 100%
Active suppliers to whom anti-corruption policies and procedures are communicated ⁷		14,762 / 100%
EC and Board members who have received training on anti-corruption policies and procedures ⁸		15 / 100%
Employees who have received training on anti-corruption policies and procedures ⁹		16,711 / 92%
Training completion rates by region (all employees excluding EC):		
	Americas	95%
	APAC	98%
	EMEA	89%
Training and completion rates by worker type (all employees excluding EC):		
	Managers	95%
	Non-managers	92%

Anti-Bribery and Anti-Corruption

☑️> The importance of conducting business in an ethical and compliant manner is at the forefront of all of our interactions and is anchored in our Code of Conduct. ☑️ We take a zero-tolerance approach to bribery and corruption and we are committed to acting professionally, fairly and with integrity at all times.

☑️> Our annual Code of Conduct training for all colleagues, including the EC and the Board, contains an anti-bribery and anti-corruption (ABAC) segment. ☑️

Key elements of our ABAC Policy and frequently asked questions are displayed on our intranet to supplement our training programs. ☑️> As with all ethics and compliance policies, our ABAC Policy is accessible to colleagues in multiple languages.

In addition, the Supplier Code of Conduct sets out our commitments to working against corruption and bribery within our supply chain ☑️ (please see more information in the Responsible Supply Chain section). ☑️> Our supply chain partners are encouraged to report any violations via e-mail or the [Hotline](#). ☑️

Risk Assessment

☑️> In addition to evaluating bribery and corruption risks as part of our ERM process, we conduct additional assessments to identify such risks across business areas and geographies. Where higher risks are identified, controls and mitigation plans are developed and implemented as required.

In 2023, a company-wide ABAC risk assessment was initiated, evaluating the robustness of our program and identifying areas for enhancement. The risk assessment covers 100% of our operations. ☑️ It was conducted internally utilizing external resources and following the UNGC process guidance for assessing corruption risk. Generally speaking, we assessed risks and controls related to operations in higher-risk countries and engagement with governmental authorities and agents, including for site permitting and production authorization purposes and sales and distribution to government-owned entities.

Six step process for conducting an anti-corruption risk assessment (UNGC)



Adapted from the UNGC publication: A Guide for Anti-Corruption Risk Assessment, ©2013 UNGC

⁶ Reflects the employee headcount as of February 1, 2023, excluding employees on leave or newly hired and therefore not enrolled in the training and corresponding communication including anti-corruption policies and procedures.
⁷ Our Supplier Code of Conduct contains anti-corruption policies and procedures for reporting wrongdoing, and it is integrated into electronic ordering systems and contractual terms throughout the Group. Our supplier base is depicted in the Supply Chain Responsibility section.
⁸ All in the EMEA region.
⁹ Our annual Code of Conduct training, including the ABAC segment, was launched at the end of 2023 to all employees and certain contingent workers. Completion rates for EC and Board members and employees are as of January 31, 2024. Policies are available for employees and contingent workers with access to such systems in our document management system, on our internal Ethics and Compliance portal and were communicated to employees and contingent workers who are assigned the annual training.

☑️> Globally, we conduct a diligence and risk assessment process for all third parties we work with, in part to ensure our conducting business with them does not violate our zero tolerance approach to ABAC. This includes real-time screening against sanction, restricted and denied party lists, including sanctions for corruption, trade, human rights, and environmental topics for all suppliers, agents and customers. Suppliers are additionally screened for adverse media coverage.

Based on the results of the risk assessment, we may request our suppliers to make additional disclosures or take training. In some cases, we may prohibit suppliers from conducting business with Lonza based on the results of the risk assessment. In 2023, 0.32% of direct, new suppliers (or direct suppliers who were newly created in SAP) were considered high risk for corruption.

Third parties are blocked from all transactions in our enterprise resource planning (ERP) system until a satisfactory conclusion of the due diligence process and risk assessment. All third party diligence processes are managed via integrated systems. For more details on overall supply chain due diligence, please see the Responsible Supply Chain section.

We also conduct risk assessments related to compliance with our ABAC policies and procedures when there is an internal report of related wrongdoing. ☑️ This includes a review of transactions and other factors related to the allegation. ☑️ In 2023, we conducted one such assessment and implemented controls to mitigate the identified risk. ☑️ This included additional ABAC training for certain employees in the location where the risk was identified.

Supply Chain Responsibility

☑️> Our responsible sourcing approach focuses on embedding ESG principles and compliance with applicable regulations within our procurement management processes. Dialogue and intensive collaboration with our suppliers are both essential for achieving responsible consumption and production, in alignment with our ambitions under SDG 12. In 2023, we enhanced our responsible sourcing program to enable a comprehensive view of sustainability and decarbonization aspects along our supply chain. ☑️

Lonza Supplier Base

Supplier Location	% of spend	Number of Suppliers ¹⁰	% direct / % indirect
APAC	15%	>3,200	10% / 90%
EMEA	59%	>7,300	9% / 91%
Americas	26%	>4,100	15% / 85%

¹⁰ Numbers in this chapter concern indirect and direct spend for January to December 2023 inclusive, as consolidated by the end of January 2024. These exclude out of scope spend, such as spend with intracompany, taxes, donations, pensions, etc.

The breadth and diversity of our business is reflected in our supply chain, which involved approximately 14,700 suppliers in 2023. Approximately 1,700 are direct material suppliers ranging from basic chemicals and naturally derived materials such as gelatin, to high-end systems and consumables for biopharmaceuticals or specialized components for cell and gene therapy production.

Management Approach

To manage supply chain complexity and mitigate ESG risks, our Procurement Team includes category managers and site-based buyers. ☑️> They develop and implement category strategies and manage the selection of suppliers and negotiation of terms on behalf of our divisions and enabling functions. This approach enables us to embed responsible sourcing criteria across our business relationships. All activities are based on our Procurement Policy, which was enhanced in 2023 with the fundamental principles of responsible sourcing. A Responsible Sourcing Standard Operating Procedure (SOP) was implemented to provide more detailed guidance for the program's implementation. ☑️

The Responsible Sourcing team is located within the Procurement Excellence function, which directly reports to the Head of Procurement and Supply Chain. ☑️> The team is responsible for Lonza's Responsible Sourcing Program and coordinating supplier sustainability and decarbonization initiatives globally. We derive yearly targets from our Responsible Sourcing Roadmap, including performance on:

- Spend coverage with supplier sustainability evaluations
- Number of suppliers engaged as part of our decarbonization Initiative ☑️

Performance is reviewed on a monthly basis through digital dashboards. In 2023, the dashboards were directly linked to external supplier evaluation providers, enabling simple live monitoring of supplier performance.

SDG 12 Responsible Consumption and Production

"We have further strengthened the collaboration with our suppliers and value chain partners for the assurance of ethics and compliance and for the reduction of Scope 3 emissions."

Christian Seufert, President, Capsules & Health Ingredients (CHI)



☑️ In 2023, our Supplier Code of Conduct was fully revised to reflect our expectations of suppliers, based on our latest sustainability and decarbonization requirements. It covers areas of ethics (including ABAC and conflict minerals), labor and human rights (including child labor), health, safety, environment (including science-based climate action), governance and management systems. It is now integrated into electronic ordering systems and contractual terms throughout the Group.

We also developed and implemented a Responsible Sourcing contract clause globally. ☹️ In addition, 10 key category strategies were updated with Responsible Sourcing principles and an associated engagement roadmap.

☑️ We are involved in industry-led initiatives to collectively drive positive change within the value chain, including the [UN Global Compact Network Switzerland & Liechtenstein](#), the [PSCI Scope 3 Working Group](#), the [Scope 3 Peer Group](#), the [BioPhorum Sustainability PCF Working Group](#) and the [Together for Sustainability initiative](#). ☹️ These associations aim to establish and harmonize supply chain oversight regarding governance and sustainability, enhancing supplier performance for pharmaceutical and chemical value chains.

We were again awarded with the silver medal from EcoVadis in 2023, with a higher score in sustainable procurement compared to previous years – an acknowledgment of our advanced management system for responsible sourcing.

Responsible Sourcing

Our responsible sourcing program, aligned with the OECD Due Diligence Guidance for Responsible Business Conduct, is an integral component of our sourcing process. Our procurement buyers make use of this transparency to ensure adherence to the Supplier Code of Conduct principles and to continuously improve sustainability and decarbonization performance in the value chain.

Supplier Sustainability Initiative for Incumbent Suppliers

☑️ This program aims to identify, measure and mitigate the ESG risks of our existing suppliers, including conflict minerals and child labor. All applied evaluation methodologies generally include environmental criteria (including climate and energy), social standards (including child labor), ethics, and health and safety, among others. Strategic or critical suppliers are evaluated based on our Supplier Sustainability Risk Evaluation Framework considering criteria such as purchasing volume and actual or potential sustainability risks.¹¹

Ambition 2028:
Suppliers representing 90% of Lonza's spend to have a sustainability evaluation

We use EcoVadis online questionnaires and TfS or PSCI on-site audits to evaluate suppliers within this framework.

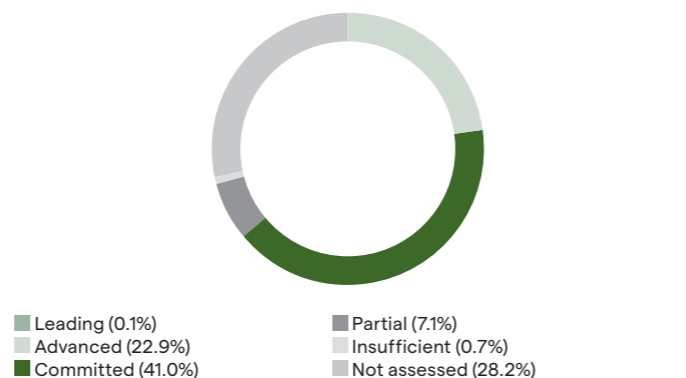
For other suppliers, alternative types of sustainability evaluations are accepted, such as the Integrity Next self-assessments that we piloted in 2023.

	2022	2023
Percentage of spend from suppliers having a sustainability evaluation	33%	72%

Based on the risk evaluation results, we work with selected suppliers to devise a corrective action plan (CAP) in EcoVadis, support with CAP implementation and monitor progress until a re-evaluation takes place. In 2023, more than 60% of re-evaluated suppliers improved their sustainability scores compared to their last evaluation. This year, we also completed several key supplier site audits, and communicated where compliance gaps were found. We continue to track their resulting remediation plans.

To determine a risk level for non-evaluated suppliers, and thus prioritize further follow-up, we conduct a desktop supplier ESG risk classification using a methodology developed by Integrity Next. It is based on online indices of ESG risks, related to countries (e.g., UNICEF's Children's Rights in the Workplace Index) and industries. ☹️

ESG Risk Distribution [% Spend]



¹¹ In addition to the supplier evaluations described here, we perform an additional third party screening and risk assessment for new vendors, specifically screening for social non-compliance topics (see ABAC section).

Supplier Sustainability Initiative for Existing Suppliers	2022	2023
Number of suppliers assessed for environmental impacts	2,434	3,474
Number of suppliers identified as having actual or potential significant negative environmental impacts	49	86
Percentage of suppliers identified as having actual or potential significant negative environmental impacts and with whom improvements were agreed as a result of assessment	41%	44%
Number of suppliers assessed for social impacts	2,434	3,469
Number of suppliers identified as having actual or potential significant negative social impacts	33	49
Percentage of suppliers identified as having actual or potential significant negative social impacts and with whom improvements were agreed as a result of assessment	18%	53%

The most frequently identified negative environmental and social impacts are gaps in suppliers' sustainability management systems, such as lack of policies, reporting or actions on human rights issues, as well as insufficient measures related to working conditions or employee health and safety, mostly for suppliers located in North America and APAC. In line with our Sustainability Risk Evaluation Framework, we collaborate with suppliers on closing the gaps through CAPs. In 2023, no business relationship with suppliers was terminated as a result of the environmental and social assessment.

Due Diligence Process on Child Labor in our Supply Chain

☑️ We have put in place a due diligence process in relation to child labor, which consists of the following elements:

- A supply chain policy reflecting child labor due diligence obligations, which is publicly communicated in the form of our [Supplier Code of Conduct](#). It clearly communicates our expectations to our suppliers and promotes respect for human rights
- Reporting tools regarding concerns around child labor in the supply chain through our Ethics and Compliance Hotline, as well as due diligence alert systems
- A risk management process according to the likelihood of occurrence and severity of adverse impacts to identify, assess, eliminate, prevent, minimize or mitigate the risks of potential and actual cases of child labor in the supply chain
- Traceability measures through the addition of supplier country information in our risk identification process ☹️

As part of our due diligence process, we differentiate between three levels of child labor risk:

- An actual risk is identified in case of controversies or negative events confirmed via a supplier sustainability evaluation, alerts systems or external sources. If a confirmed child labor incident occurs, we engage with the relevant suppliers to restate our expectations on human rights, initiate a dialogue on enhancing human rights due diligence in the supply chain and check that a remediation response is provided. ☑️ In 2023, we identified through our diligence tools one confirmed child labor incident in a US third-party services provider of two direct suppliers of ours. The incident was not directly associated with the manufacturing of the product provided by our direct suppliers. As we usually have no direct contractual relationships with our upstream supply chain, we seek to collaborate with our direct suppliers, with whom we initiate corrective actions on the monitoring and enforcement of human rights due diligence obligations within their operations and with their subcontractors ☹️
- A potential risk is derived from performance gaps in a supplier's child labor management system, as highlighted in the sustainability evaluation results. We focus on mitigating risks related to suppliers without evidence of policies or actions on child labor in their operations and supply chain, by requesting them to work on Corrective Action Plans. In 2023, we identified 7 suppliers, mainly located in APAC, with potential risks of child labor and triggered corrective actions for all of them
- A theoretical risk is identified based their location (country) and industry related risks. ☑️ In such cases, we request our suppliers to perform a sustainability evaluation to confirm that they have child labor risk management systems in place. Based on the results, suppliers are then prioritized for further due diligence through the Supplier Sustainability Initiative for Incumbent Suppliers. ☹️ In 2023, we identified 23 suppliers, mainly located in North America and APAC, with theoretical risks of child labor and will invite all of them to a sustainability evaluation in 2024

Due Diligence Process on Conflict Minerals in our Supply Chain

☞ Our [Public Policy Statement on Conflict Minerals](#) forms the basis of our due diligence program. It clearly communicates our expectations to our suppliers and promotes responsible sourcing of 3TGs (tin, tungsten, tantalum and gold).

In 2023, our screening of imported volumes of 3TGs did not identify any relevant mineral import above legal thresholds which would require additional due diligence. Lonza is therefore exempt from the Swiss due diligence and reporting obligations on minerals and metals from conflict-affected areas under Art. 964j-k of the Swiss Code of Obligations. Nevertheless, we work closely with direct relevant suppliers to ensure conflict-free sourcing of 3TGs. In 2023, 53% of such suppliers have provided evidence showcasing sourcing practices of 3TGs consistent with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals, and we continuously work to close the gap. ☞

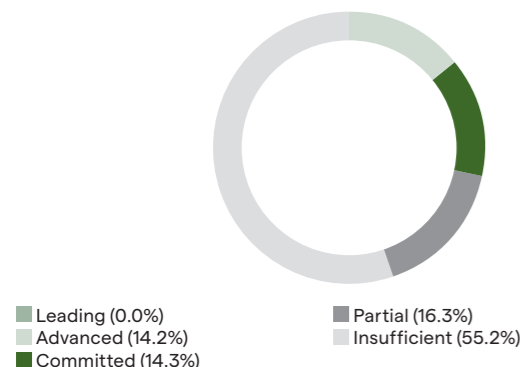
Supplier Decarbonization Initiative for Incumbent Suppliers

☞ This initiative aims to identify, measure and reduce the GHG emissions of our suppliers in alignment with the Paris Agreement. We have set a science-based target for Scope 3 in the form of a supplier engagement target. This target applies to Scope 3 categories of purchased goods and services, capital goods, and upstream transportation and distribution, which represent the largest share of our total Scope 3 footprint. These suppliers are evaluated based on our Supplier Decarbonization Maturity Evaluation Framework. ☞

Ambition 2028:
Suppliers representing 67% of Scope 3 emissions to set science-based targets

	2022	2023
Percentage of Scope 3 emissions from suppliers having science-based targets	4%	18%

Decarbonization Maturity Distribution [% Spend]



☞ Based on our evaluation, we engage with selected suppliers to further understand their climate action plans, drive improvement measures and share best practice, either independently or in partnership with other pharmaceutical companies. ☞ In 2023, 41 suppliers have successfully obtained approval for their climate targets from SBTi.

Training and Development of the Procurement Community and our Suppliers

☞ To support the continual information flow, training and education of our suppliers, we have launched our [Responsible Sourcing Toolkit](#). ☞ The toolkit summarizes our Responsible Sourcing program, initiatives and targets, providing practical guidance and expected behavior to meet our minimum standards in terms of sustainability risks and decarbonization maturity levels. The toolkit is available in relevant languages via our [Responsible Sourcing webpage](#) and our [EcoVadis Supplier Landing Page](#).

☞ Through our membership in the Together for Sustainability initiative, our suppliers have access to the [TfS Academy](#), a free learning and capability platform focused on sustainability topics, including environment, health and safety, labor and human rights, governance and sustainable procurement. We also invite selected suppliers to live webinars on the EcoVadis assessment and Corrective Action Plans, organized by TfS.

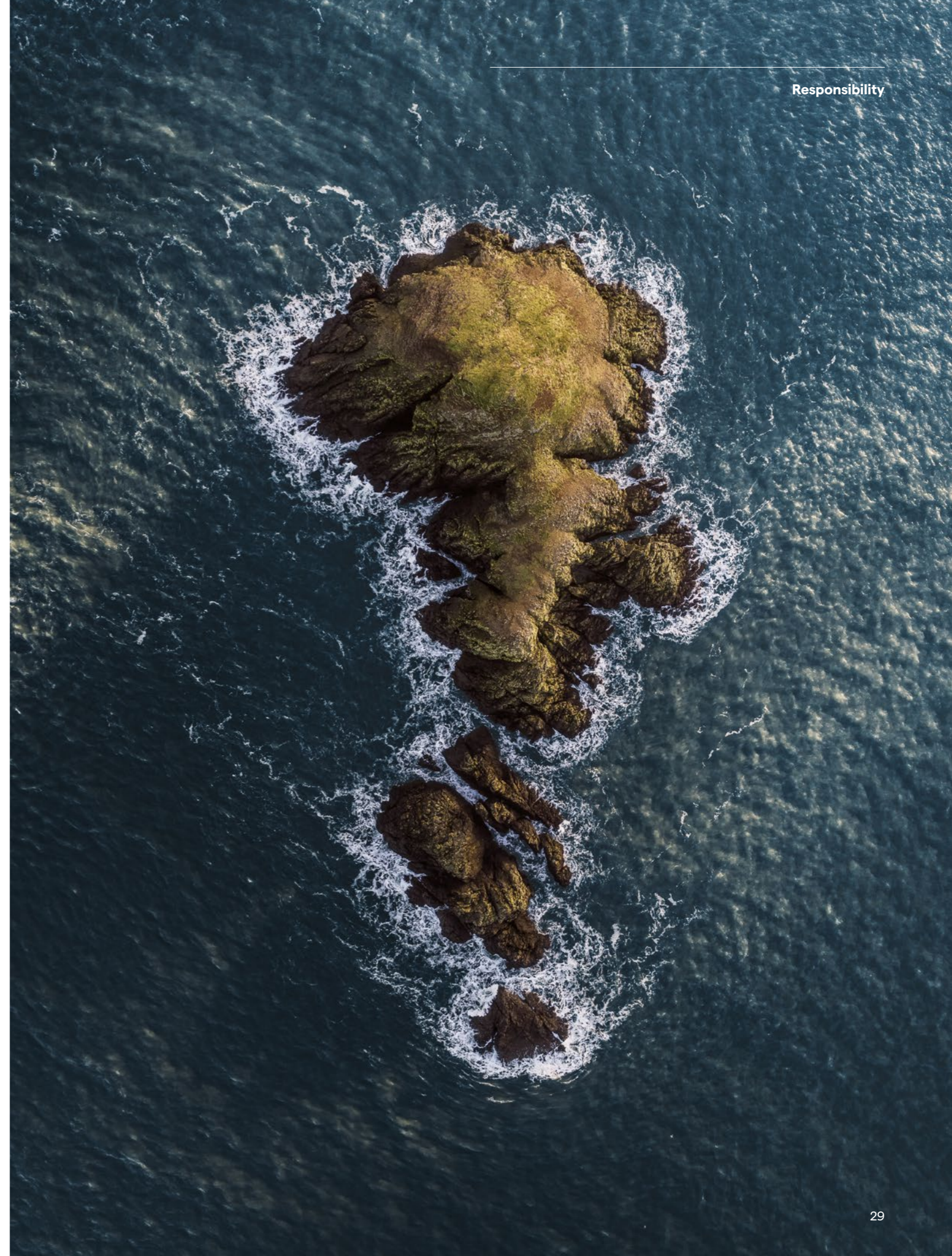
To support our Procurement professionals with access to information, training and education, we have embedded the TfS Academy into our Procurement learning pathways. ☞ These mandatory pathways are customized to the employee's role (operational, strategic or advanced procurement) and include courses on key Responsible Sourcing topics (e.g. supplier decarbonization, conflict minerals, supplier engagement on sustainability). ☞ In total, over 1,000 courses were completed by 78% of the target audience in the first year of TfS Academy deployment (from February 2023 to February 2024). ☞

Other trainings include¹²:

- Fundamentals on our sustainability policies, attended by 90% of the target audience (251)
- Responsible Sourcing SOP, attended by 95% of the target audience (200)
- Supplier Code of Conduct, attended by 94% of the target audience (207)

☞ Finally, internal stakeholders were further trained on the new Responsible Sourcing program through a targeted internal communications campaign, a dedicated webpage and in-house webinars in focal areas such as ESG assessments, corrective action plans, climate change and GHG accounting. ☞

¹² Figures refer to the audience that the training was assigned to, and do not include contingent workers who are not employed by Lonza.

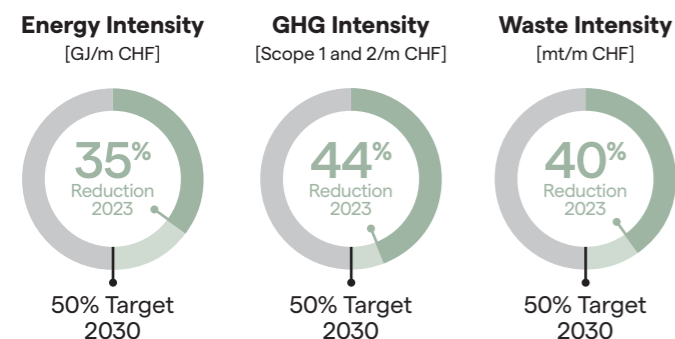


Environment

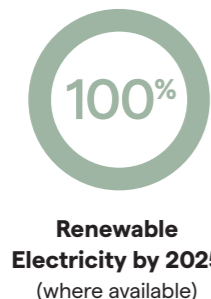
At a group level, we continually strive to reduce our impact on natural systems and the environment, with a focus on energy, greenhouse gases, water and waste. Our "Vision Zero" initiative specifically aims to eliminate adverse events like workplace accidents, environmental and process incidents. Programs are developed by the global functions and implemented at site level based on a Safety and Sustainability Plan issued annually to all Lonza sites, aligning priorities and goals. The group and sites build multi-year roadmaps to enable continuity of improvement and consistency over the years.

2030 Targets

Base year 2018, total Company (Per CHF 1 Million Sales)



Renewable Electricity Ambition



The graphs show the three 2030 intensity targets and the 2023 achievement levels, based on million CHF sales to factor in continued growth over time. Our intensity targets were set in 2019, therefore we took the most recent year with complete data at the time as base year. The targets also reflect our diverse and evolving product portfolio, which includes the manufacturing of pharmaceutical ingredients, medical capsules, food supplements, gene therapies and cell media, and the licensing of technologies and systems. Such diversity can be normalized with a financial denominator. Intensity targets can also be carried forward in the event of acquisitions or divestments.

Performance improvements are the responsibility of divisional operations management and the site-networks. At site level, operations, engineering, and EHS departments are responsible for devising and developing multi-year rolling safety and sustainability roadmaps. These are designed to drive compliance, efficiency and safety at site level, thereby participating in the overall sustainability target achievement. Some local goals can be added to the group plan, based on the materiality analysis conducted at site level (such as water or air emissions limits).

Data on energy consumption, related GHG emissions, effluents, waste, water and other emissions are reported quarterly by each site to Corporate EHS and Global Sustainability, a process described in detail in the reporting procedure. This data and information form the basis for tracking performance, planning future reduction goals and creating action plans to meet targets.

We have reported within the **CDP** framework since 2007. We also maintain reporting on other platforms, such as **EcoVadis**, to exchange sustainability data across the supply chain.



Our Progress in 2023

In 2023, as part of our GHG-emission reduction strategy, we submitted the letter of commitment to the [Science Based Targets initiative \(SBTi\)](#) and near-term targets to reduce absolute Scope 1 and 2 GHG emissions by 42% by the end of 2030 (2021 base year) and to set a supplier engagement target for Scope 3.

We have initiated a program to replace our traditional power mix with renewable power, which forms a major pillar of our GHG reduction strategy. We aim to do this by establishing virtual power purchase agreements (VPPAs), installing onsite capacity, and purchasing renewable energy certificates from projects assuring additionality, where available.

In 2023, we signed a ten-year VPPA with a renewable energy company to generate more than 300 GWh of solar power annually, matching Lonza's electricity needs across Switzerland and the European Union. End of 2023 we also have secured an industry-first renewable power purchase agreement in China together with four global pharma companies. Partners have been convened through [The Sustainable Markets Initiative](#) Health Systems Task Force. This multi-party agreement will unlock access to green power in China and help Lonza decarbonize the electricity consumption in this region. In 2023, 38% of the electricity we consumed was procured and sourced from renewable sources. Following our commitment to SBTi, we will adjust our targets for the mid-term to reach the required GHG reduction.

In the reporting year, we recorded again a reduction in the intensity measurements for all performance indicators. The reduction was driven by efficiency gains, alongside the growth of our business without major footprint increases. It is also a consequence of a portfolio shift, to more biologic processes and higher-value compound sales.

Energy

Our operations require energy, typically in the form of natural gas and electricity, which is consumed at our sites for manufacturing or infrastructure processes. This is the largest contributor to our climate-relevant emissions. We therefore focus our efforts on reducing GHG emissions by improving energy-efficiency at our sites. As explained, it is our priority to source electricity from renewable sources in order to decouple electricity consumption and GHG emissions.

Our footprint-reduction goals encompass existing facilities, as well as investments in new assets, buildings and facilities. Our capital expenditure approval process includes a sustainability assessment of large and mid-size projects. The investment project must make a contribution towards the company's ESG targets by using energy and water efficient technologies. We implemented standards for "sustainability by design", aiming to optimize key utilities such as HVAC, quality water systems, efficient building envelopes and infrastructure. We have also adopted a comparative footprint calculator to calculate GHG savings from the outset.

Since 2018, we have worked with a partner to analyze data for electricity sourcing, contracting, supply and demand patterns, and to centralize data from all sites into one platform. This has given us a better understanding of how and where to further improve energy efficiency and cost management. In addition, some sites have adopted energy management systems aligned with the ISO 50000 framework, which includes an energy team, policy, target setting and a rolling action plan.

Overall, despite some scarcity and increasing prices, we experienced no shortfalls in energy supply in 2023. We continue to monitor sufficient availability, and continue the efforts for security of supply, especially in Europe.

Energy Consumption within the Organization

We collect and analyze energy data by site, by division and across the company. Purchased fuels, electricity and steam are metered directly or derived from the total facility consumption to reflect our proportionate consumption in rented multi-occupant facilities. We use fuels in our manufacturing processes for utility generation such as steam, heating, cooling, quality water, ventilation, air conditioning, refrigeration and transport. The majority of fuel we consume is natural gas, followed by electricity and energy generated on site, mainly through the incineration of gaseous by-products, solvents and waste. Our total energy consumption has been slightly increasing since 2018, at much lower rate than our growth.

	2021	2022	2023
Net Energy Consumption [TJ]	5,834	6,299	6,442

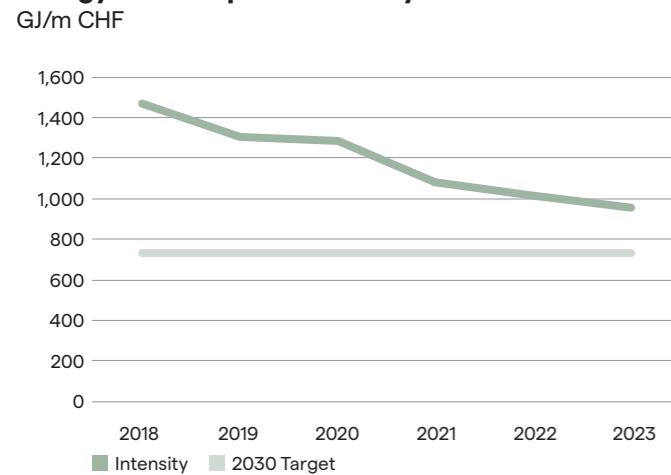
Lonza Energy Consumption 2023

Diesel [TJ]	2
Fuel Oil [TJ]	39
Gasoline [TJ]	2
LPG [TJ]	6
Natural Gas [TJ]	2,995
Self-Generated Energy (Waste, Processes) [TJ]	2,062
Total Fuel Consumption from Non-Renewable Sources[TJ]	5,106
Biomass (Wood) [TJ]	66
Total Fuel Consumption from Renewable Sources[TJ]	66
Purchased Electricity Non-Renewable [TJ]	1,468
Purchased Electricity Renewable [TJ]	897
Renewable Electricity (On-Site) [TJ]	11
Total Electricity Consumption [TJ]	2,376
Purchased Steam [TJ]	1,706
Energy Produced for Others [TJ]	2,811
Net Consumption [TJ]	6,442

Energy Intensity

☺ In 2023, the energy intensity value was 959 GJ/million CHF (considering all energy types), a decrease of 35% compared to the 2018 base year (with 5,520 TJ, and an intensity of 1,470 GJ/million CHF). This demonstrates progress towards our 2030 target of a 50% reduction in energy consumed per CHF million of sales. This decrease is driven by strong growth and is tempered by a minor increase in energy consumption as new assets came online, supported by many energy reduction projects. We also benefit from an increasing proportion of modern, energy-efficient buildings, assets and production technologies. The effectiveness of these measures has led to a sustained reduction in energy intensity, as shown in the chart below. <☺

Energy Consumption Intensity



Water

Water is used for a variety of purposes across our businesses, including heat transfer, cooling, steam generation, washing and cleaning, sanitization, and is also used as a product ingredient. As a precious natural resource, it must be actively managed – especially in water-scarce locations.

Access to clean, plentiful and potable water is critical to ensuring the quality of our products. ☺ Our sites have not experienced water shortage impacting operations. Nonetheless, we are taking various measures to reduce water consumption and minimize downstream effects through effluents, balancing water withdrawal impacts with communities and the local environment. Internal standards on water and wastewater include a requirement for sites to have a water balance to understand and optimize water use, recycle water and eliminate losses. We require sites to reduce water usage through asset optimization and process changes, to promote water recycling and reuse, and to treat effluents according to permits and internal limit values. <☺

Water Withdrawal by Source 2023

Groundwater Wells [thousand m³]	2,839
Public Supply [thousand m³]	3,981
Surface Water Bodies [thousand m³]	22,179
Total Water Withdrawn [thousand m³]	29,000

SDG 6 Clean Water and Sanitation

"Water is a universal need for all people, communities and our company. With many activities (from small to large actions) already delivering results, and further plans articulated, I am delighted both with the progress made in 2023 and – as important – the commitment shown by our employees across the world to support our stated ambition to reduce water consumption."

Gordon Bates,
President, Small Molecules Division



☺ In addition, each major site assesses local water risks and opportunities every three to five years, by sharing information related to water availability, legal requirements, infrastructure capability and costs. <☺ Risks may include periodic water scarcity, droughts or other supply limitations, discharge restrictions, emerging regulations, and risks associated with a direct discharge to natural water bodies or to publicly owned wastewater treatment plants. Opportunities may include ways to improve internal recycling of industrial water, water conservation and resource efficiency, ground and surface water protection, and better discharge quality. ☺ Our sites are required to identify stakeholders to address water needs in their local water basin and downstream, as well as availability and quality. <☺

In countries such as India and Mexico where freshwater is periodically scarce, we may be exposed to water shortages or restrictions, water price volatility and a decline in water quality. ☺ To mitigate water-related risks, sites track their water balance and derive water management programs to meet agreed reduction targets. <☺ Sites in water-stressed regions and geographies incorporate measures to optimize water consumption and management into their sustainability roadmaps.

At our Singapore site, the team is actively adopting water conservation measures. The site team initiated its first step in harvesting rainwater to use in cooling processes. Collected rainwater will be filtered and treated before being pumped into the cooling water network. This simple measure will save 3,000m³ a year and achieve payback in less than six years.

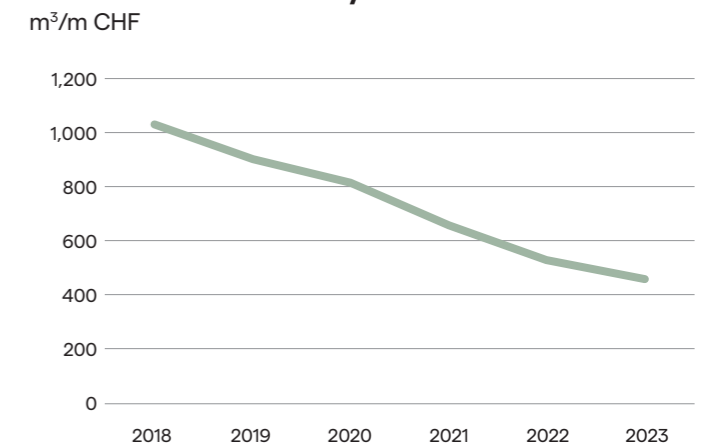


☺ We monitor and measure both industrial water, which may be altered chemically or physically by the manufacturing processes, and non-contact cooling water (unchanged, except for temperature), as well as other indicators of water sourcing and output. <☺

	2021	2022	2023
Industrial Water Used [thousand m³]	3,551	3,273	3,074
Cooling Water Used [thousand m³]	33,385	29,546	29,028

☺ Each site is responsible for keeping the water balance updated, which serves as the basis to define areas of focus for projects to reduce water consumption and/or increase water recycling. The effectiveness of these measures has delivered a continuous improvement of our industrial water intensity, as shown in the chart below. Each site is also working to improve its understanding of water consumption by asset or building, where additional metering may be required. Globally, in line with our commitment to SDG 6 (Clean Water and Sanitation), we plan to build on the completed risk and opportunity assessment with a mid-term action plan to reach our ambition of reducing industrial water intensity by 2030 by approximately 50%. This corresponds to an intensity reduction ambition of 10% per annum. <☺

Industrial Water Intensity



Water Discharge

☞ According to our Water and Wastewater Standard, we work to reduce effluents by controlling and reducing water inputs, optimizing effluent pre-treatments, setting water recycling targets and selecting appropriate terminal treatments. ☺

As the Standard does not set quantitative limits for the wastewater discharge, final effluents are managed and controlled according to the parameters permitted by local authorities' wastewater permits. Any deviations are reported within the environmental incident reporting system. Sites hold local permits and follow all local requirements related to water treatment and relevant wastewater discharge parameters, including quantity and chemical limit values.

In locations where such requirements have not been formalized by the authorities, sites work in accordance with the Standard to minimize the quantity of materials discharged and make sure that no potentially hazardous compounds (such as flammable substances) are discharged in such quantity that the risk to people or environment would not be acceptable.

Thanks to several improvement projects, colleagues at our Slough (UK) site have reduced water consumption by 55 m³ per day (compared to 2018 levels). For example, the site introduced new filters that resulted in less water consumption and halved the process time. The consumption of water for injection (WFI) – a specially prepared, sterile and distilled water – was reduced, alongside the GHG footprint of the operation. Other improvements included removing redundant water lines and optimizing tank filling and sanitization.



☞ In addition, sites that handle Active Pharmaceutical Ingredients (APIs) – which are viewed as substances of concern in this area – adopt a risk-based approach to wastewater discharge. This approach is based on current industry practice endorsed by PSCI. It involves comparing the predicted environmental concentration (PEC, determined by mass balance or analytical measurement) with the predicted no effect concentration (PNEC). Potential adverse effects are investigated in detail and a tailored approach is taken, which may include a change to the cleaning process, incineration of first rinse or any other appropriate method. ☺

Due to the diverse nature of water effluent requirements, we do not report on discharge water quality. The water emission parameters listed below are tracked at sites where the following emissions are relevant: heavy metals, nitrogen, organics (COD and TOC) and phosphorus and other locally permitted parameters. ☞ In 2023, we recorded a total of 13 incidents of discharge permit deviation. None of these incidents entailed significant fines or prosecution. ☺



Lonza Water Discharge 2023

Water Discharged to Sewer [thousand m ³]	3,116
Water to Water Bodies [thousand m ³]	29,071
Total Water Discharged [thousand m ³]	32,187



Greenhouse Gas Emissions

The increase in global GHG emissions is causing and accelerating climate change. This is triggering an increase in average temperature, and increasing the number of severe weather events including droughts, floods, fires, storms, and rising sea levels. These events can have negative impacts, including food and water scarcity, land erosion, and damages to the built and natural environments. The impacts could potentially affect our operations and our capability to provide the products, services and technologies needed for the healthcare value chain and patients. We started evaluating the risks of climate change to our operations and the company, please see the Risk Management section of this report.

Energy generation from fossil fuels, waste incineration and other industrial processes result also in additional emissions, such as particulate matter (PM), nitrogen oxides (NOx), sulfur dioxide (SO₂) and volatile organic compounds (VOC). We continuously monitor and control such emissions to comply with statutory limits and to reduce them beyond regulatory requirements.

GHG emissions are typically categorized into three groups: Scope 1 from fuel use in our operations, Scope 2 from electricity and purchased steam, and Scope 3 from indirect emissions in our value chain, e.g. raw materials, construction projects and transport. Our direct GHG emissions result mainly from combustion processes for energy conversion and include incineration of waste onsite, both of which we also perform as a service to industrial partners in Visp (CH)¹⁵. For example, these waste incineration services for external parties constitute a significant part of our GHG-footprint, in the range of 10% of our Scope 1 emissions.

SDG 13 Climate Action

"We are dedicated to science. We have set science-based targets to reduce our greenhouse gas emissions by 2030, as a major step to net-zero by 2050."

Maria Soler,
Head of Group Operations

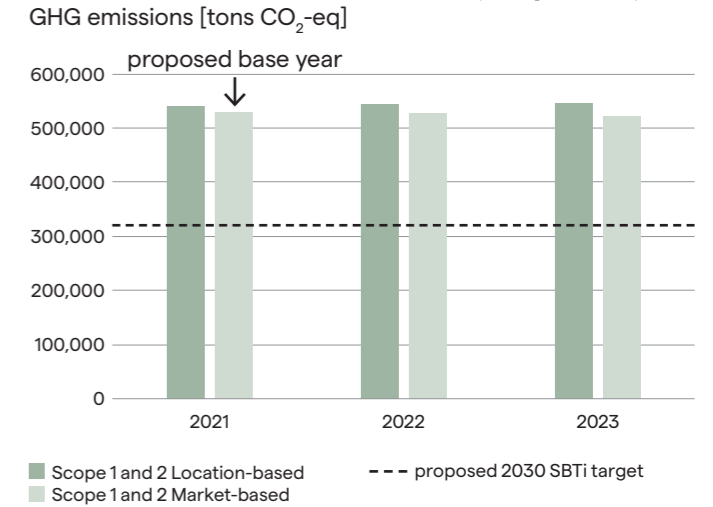


☞ We focus on managing total energy consumption, energy sources and waste, and the overall energy mix. To decouple GHG emissions from energy consumption, we work to increase the proportion of renewable electricity (such as wind, hydro and solar). Our sites include energy efficiency and waste reduction measures in their roadmaps, and in some cases apply low-carbon energy alternatives, such as biomass. For new assets and buildings our Sustainable Design Standard requires energy and water efficiency and the use of sustainable technologies. We also participate in research projects to evaluate carbon capture opportunities.

In 2023, we committed to the SBTi, setting a reduction target of 42% (absolute Scope 1 and 2 GHG emissions) for 2030 compared to 2021 levels, and established a supplier engagement target for Scope 3. ☺

¹⁵ The GHG emissions from the operations of BioAtrium Ltd. and BacThera Ltd. (the Lonza strategic partnerships with Sanofi and Chr. Hansen Holding A/S, respectively) in our Visp (CH) site are included in these numbers, since we have operational control of the utilities management of those facilities.

Lonza Greenhouse Gas Emissions (Scope 1 & 2)

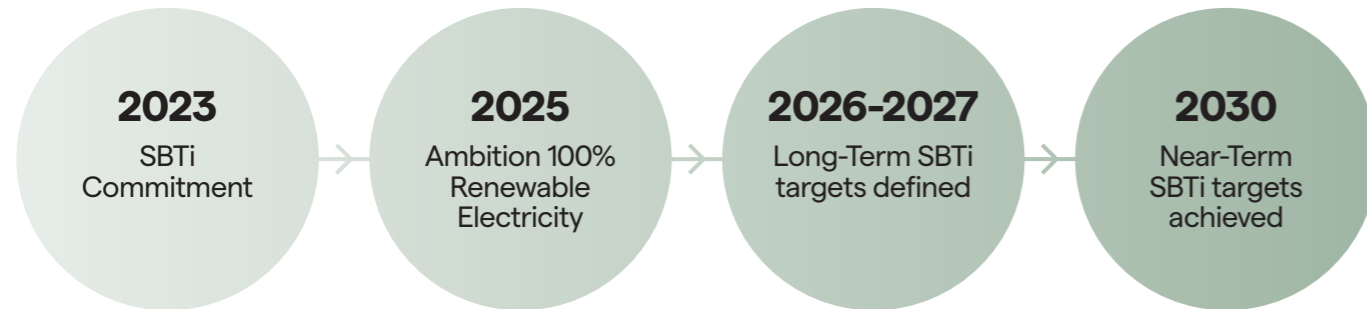


Climate Plan

Our Ambition

- Our ambition is to achieve net-zero by 2050 or earlier
- To enable focused progress and achievement, we defined science-based near-term targets which were submitted to SBTi in August 2023
- Once the near-term process has been established, we will focus on long-term targets and define the next steps to achieve net-zero

Climate Transition Plan



Our Proposed Science-Based Near-Term Targets
By 2030, we aim to:

- Switch to 100% renewable electricity for our operations globally, where available through VPPAs with a focus on additional electricity generation assets. In some cases, we will build onsite renewable electricity capabilities. We may also use certificates of renewable assets aligned with RE100 criteria
- Ensure that our growth has the smallest operative GHG footprint possible, by integrating sustainability into the design of new assets
- Capture opportunities to upgrade end-of-life assets to newer, leaner technology to reduce GHG footprint, develop energy efficiency projects to eliminate energy waste, pursue an electrification strategy wherever possible, and switch to biogenic fuels where feasible
- Engage our suppliers to set science-based targets

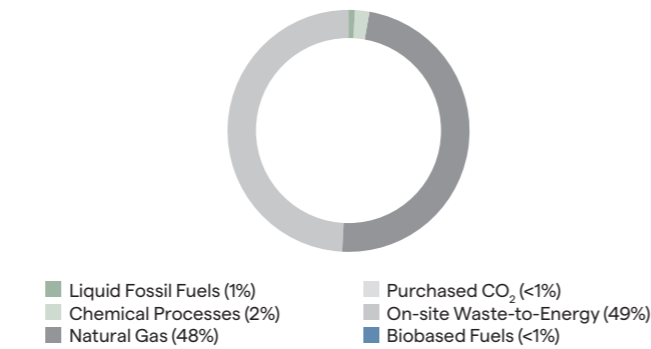
Scope 1 GHG Emissions

☑️ Scope 1 includes direct GHG emissions from fuels or other sources that we either own or control. Specific factors are used for calculating emissions from fuel combustion (CO₂, CH₄ and N₂O), including from company-owned vehicles¹⁴. CO₂ and N₂O emissions from other on-site processes, such as chemical reactions or waste incineration, are directly measured, calculated or estimated by each site. Parts of our Scope 1 emissions originate from on-site waste and waste gas incineration, to treat final waste streams and produce heat. We perform infrastructure services for neighboring industry-park companies such as waste incineration, steam generation and delivery, which form a large part of our Scope 1 balance. <☺️

	2021	2022	2023
Total Scope 1 Emissions [thousand metric tons CO ₂ -eq]	325	321	319

¹⁴ Each GHG has a specific Global Warming Potential (GWP). We work to follow the latest GWP published by the Intergovernmental Panel on Climate Change (IPCC), namely AR6 – the Sixth Assessment Report of the IPCC, wherever possible. Emission factors used for Scope 1 and 2 are from sources such as UK DEFRA, USA eGrid or the International Energy Agency.

Lonza Scope 1 Emissions Sources 2023



Scope 2 GHG Emissions

☑️ Scope 2 encompasses GHG emissions from purchased electricity and steam. At Lonza-owned sites, purchased electricity and steam is measured directly on our own metering devices. In rented multi-occupant facilities, consumption is derived from the total facility consumption to reflect our proportionate consumption.

We report Scope 2 GHG values using two quantification methods: location-based and market-based GHG emissions. The location-based method reflects the total electricity consumption of the site, multiplied by local electricity grid average emission factors. The market-based method reflects calculated emissions from electricity contracts we have selectively purchased, including renewable certificates or green tariffs. Location-based values are used to track energy efficiency gains against our GHG targets. Efficiency in this context means producing higher output or achieving higher sales with the same amount of energy input and related emissions. Market-based values will be used for our science-based target setting and also to measure our continuing efforts to replace fossil fuel generated electricity with renewable electricity. <☺️

Total Scope 2 Emissions	2021	2022	2023
Location-based [thousand metric tons CO ₂ -eq]	215	224	228
Market-based [thousand metric tons CO ₂ -eq]	204	205	202

Scope 3 GHG Emissions

☑️ Scope 3 includes GHG emissions from purchased goods and services, construction, business travel, upstream and downstream transportation, waste disposal, employee commuting, etc. As of 2021, we began to quantify our Scope 3 GHG emissions on an annual basis¹⁵. <☺️

Total Scope 3 Emissions	2021	2022	2023
Total Scope 3 Emissions [thousand metric tons CO ₂ -eq]	1,786	1,847	1,876
Scope 3 Intensity [tons CO ₂ -eq/million CHF]	330	297	279

☑️ As generally observed in our industry, Scope 3 GHG emissions are considerably higher than Scope 1 and 2 GHG emissions. A significant proportion of our Scope 3 GHG emissions can be attributed to purchased goods and services and capital expenditure. Waste disposal and fuel- and energy-related activities (not included in Scope 1 and 2) also contribute, though to a lesser extent, because emissions from the significant amounts of waste incinerated onsite in Visp (CH) are reported under Scope 1. Business travel, employee commuting and downstream distribution are all comparatively minor contributors to our total Scope 3 GHG emissions.

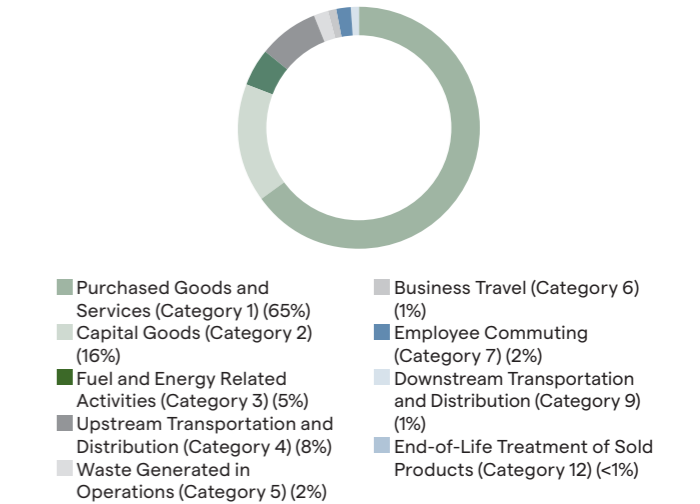
As a central element of our commitment to SDG 12 (Responsible Consumption and Production), we have defined a science-based target and roadmap to reduce our Scope 3 GHG emissions. We have started engaging suppliers that make the largest contribution to our GHG footprint to understand their ambitions and actions to reduce GHG emissions (see Supply Chain Responsibility Chapter).¹⁶

The underlying approximations rely on average industry data and therefore carry some level of uncertainty. We continue to focus on improving data validation and analysis to ensure sufficient granularity and reduction plans on the categories with the highest contribution. <☺️

¹⁵ Also for Scope 3 we work to follow the latest GWP published in the AR6 – the Sixth Assessment Report of the IPCC, wherever possible. Emission factors used for Scope 3 are from sources such as the UK DEFRA,ecoinvent, US Environmentally-Extended Input-Output databases.

¹⁶ We will have a SBTi supplier engagement target under Scope 3. Our SBTi Scope 1, 2 and 3 base year will be 2021, as the full year dataset for our near-term targets.

Lonza Scope 3 Emissions 2023



☑️ Calculations for the Purchased Goods and Services, Capital Goods and Upstream Transportation categories are based on spend data covering Q4 2022 to Q3 2023; all other data refer to Full-Year 2023. Upstream leased assets (category 8) are included in Scope 1 and 2. Other categories are not integrated into the calculation, because they are either negligible or the data collection and modeling is not feasible. <☺️

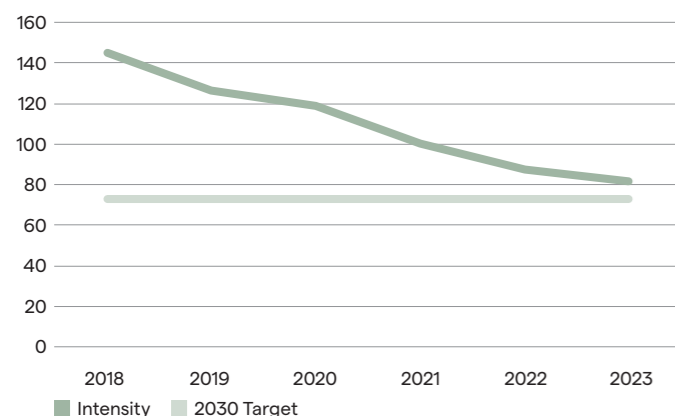
GHG Emissions Intensity

☑️ The carbon emission intensity values from Scope 1 and Scope 2 (location-based) decreased by 44% in 2023 (compared to the 2018 base year, with 545 thousand tons CO₂-eq, and an intensity of 145 tons CO₂-eq /m CHF) to 81 tons CO₂-eq/m CHF. The reduction effect is driven by the proportionate increase in sales and technology shifts. Absolute GHG emissions from our operations (Scope 1 and 2) had a minor increase compared to 2022 (less than 1%).

In addition to our intensity target, and in line with our commitment to SDG 13 (Climate Action), we have defined internal targets on GHG emissions from our operations, aiming to achieve absolute reductions in line with a near-term science-based target for 2030. Metrics for the contribution to this SDG are also linked to our incentive and compensation framework. <👍>

Greenhouse Gas Emissions Intensity

Scope 1 and Scope 2 location-based, tons CO₂-eq/mio CHF

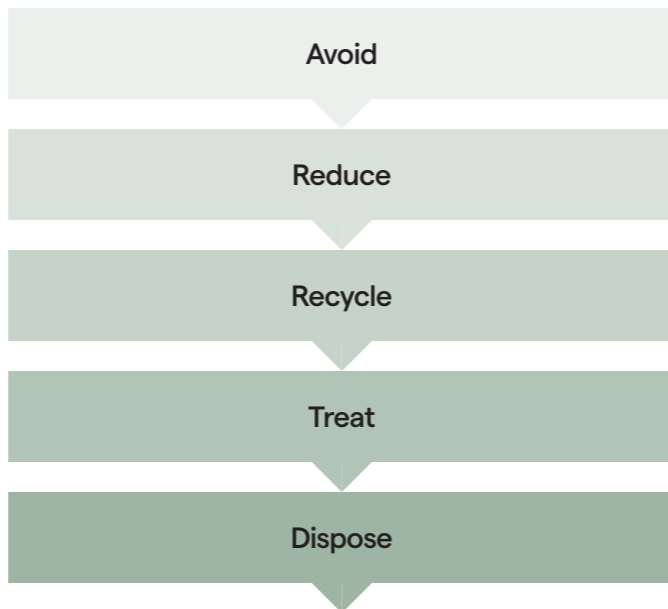


Waste

As a company operating in the pharma, biotech and nutrition markets, including chemical production facilities for APIs, we are committed to being transparent with stakeholders and local communities about how we manage materials, waste and wastewater. Our communities have a vested interest in waste and water discharge from our production.

Each manufacturing site across our network maintains a waste disposal process, tailored to relevant waste streams, for the efficient and environmentally sound treatment and disposal of waste outputs. <👍> All sites are committed to our waste reduction and circularity principles (avoid, reduce, recycle) and to the reuse, treatment and disposal of all waste materials in full compliance with local regulations and international standards. <👍>

Furthermore, our programs aimed at reducing the quantity of waste and/or increasing the recycling rate will continue to mitigate related risk. The waste management system and performance at our manufacturing sites are both subject to regular inspections and audits.



Our sites carefully select, oversee and audit their partners for waste transportation and treatment based on performance and capabilities, also regarding safety and sustainability. <👍> We operate our own waste and wastewater treatment facilities at specific locations, such as Visp (CH) and Nansha (CN). <👍>

We are working to increase the efficiency of input materials in production processes, including yield improvement, reworking off-specification production, and the re-use of auxiliary materials wherever possible to generate sound business and sustainability benefits.

Waste Generation and Significant Waste-Related Impacts
We aim to reduce the environmental impact of our activities, while meeting all specifications, quality and safety requirements in our customer contracts. As a CDMO, our influence is limited in relation to waste generated by customer-defined manufacturing processes and downstream user behavior. We therefore focus improvements on our own operations and the modifications we can elaborate with customers.

The production technology and quality requirements for biopharmaceutical production have changed in recent years. Improved cleaning practices, and the use of single use technology (SUT) such as plastic bags, and appliances instead of stainless steel reactors, are reducing water use for cleaning traditional vessels. On the other hand, they have increased SUT plastic waste. As this technology is growing, and alternative disposal and recycling solutions are not yet broadly available, local approaches to disposal must be implemented in the meantime. The SUT industry is yet to develop a recycling or take-back system for their sales products or develop reusable assembly parts that would allow users to reduce the burden.

<👍> Our waste is managed by third parties that have been approved by the relevant authorities and our local sites. <👍> We have started to implement a waste recycling KPI to measure the internal waste recycled or reused onsite (including closed loop) to help track and incentivize onsite circularity measures. <👍> Sites develop their own circularity measures, such as increasing the number of reuse cycles of solvents, or using biomass waste as fuel. <👍>

Waste Generated

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

<👍> Our sites and divisions focus on reducing waste intensity as part of their site plans and roadmaps. These are further supported by new guidance on waste management and minimization. The waste¹⁷ generated and disposed of by our continuing operations increased by 3% compared to 2022. <👍>

	2021	2022	2023
Total Waste Disposed [thousand tons]	62.0	61.9	64.1

In Visp (CH) and Nansha (CN), the energy generated in 2023 from incinerating waste solvents, by-products and waste was around 2,000 TJ. These waste solvents replaced the consumption of 57 million m³ of natural gas. Waste that is sent to landfill mainly consists of incinerator ashes and sludges.

Lonza Waste Disposal by Destination 2023

Waste Hazardous Incinerated [thousand tons]	44.2
Waste Hazardous Landfilled [thousand tons]	2.0
Waste Hazardous Recycled [thousand tons]	1.7
Waste Hazardous Treated [thousand tons]	0.03
Total Hazardous Waste [thousand tons]	48.0
Waste Non-Hazardous Incinerated [thousand tons]	4.4
Waste Non-Hazardous Landfilled [thousand tons]	5.5
Waste Non-Hazardous Recycled [thousand tons]	6.1
Total Non-Hazardous Waste [thousand tons]	16.0
Total Waste [thousand tons]	64.1

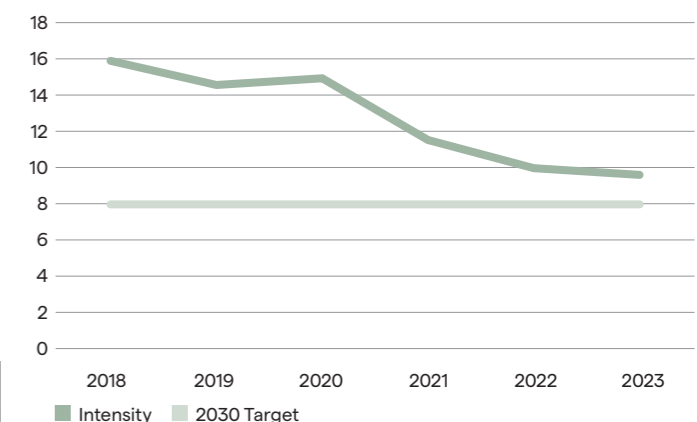
¹⁷ Waste is defined as hazardous or non-hazardous by local legal definition.

Waste Intensity

<👍> In 2023, the waste intensity value decreased by 40% compared to the 2018 base year (with 59 thousand tons, and an intensity of 15.8 tons/million CHF) to 9.5 tons/m CHF, demonstrating sustained progress towards our 2030 target of a 50% reduction in waste generation per CHF million of sales. The effectiveness of our waste management measures lead to a continuous reduction in total waste intensity, as shown in the chart below. <👍>

Waste Intensity

tons/mio CHF



The amount of waste generated can fluctuate for several reasons, including:

- Changes in the product portfolio, which might include more or less waste-intensive products and production processes
- Discarding production batches as a result of quality issues or expiration
- The use of SUT and additional cleaning practices
- The temporary shutdown of production lines for maintenance and optimization purposes

<👍> Our sites have been making progress with their projects and activities to decrease waste. Some examples are listed below:

- The reduction of waste intensity for several production facilities by pre-treating contaminated wastewater to make it suitable for the wastewater treatment plant and to avoid incineration
- An increase in solvent recycling for several production lines, reducing the procurement of fresh solvents. Concurrently, there has been a decrease in the amount of waste solvent incinerated
- Process optimization, including the redesign of production processes, process streamlining and yield improvements <👍>

Remediating Legacy Issues

Mercury Remediation

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

Since 2013, we have worked closely with local authorities and communities to finance and implement the required technical investigations in residential areas and agricultural zones between Brig-Glis and Niedergesteln (CH). Remediation in residential areas started in 2017. By the end of 2023, 157 parcels of land in Visp, Raron and Brig-Glis (CH) were remediated, representing 93% of affected residential plots. Remediation works in the contaminated agricultural area started with a first pilot remediation in 2021 in Raron (CH), and a second pilot remediation in Visp (CH) in 2022. Following the completion of the two pilot remediation projects, regular remediation work in the agricultural area has been underway since 2023. By the end of 2023, about 20,000m² of land had been remediated, representing approximately 30% of the total agricultural area to be remediated (around 65,000m²).

We are continuing to work closely with the Swiss Canton of Valais, the municipalities and other relevant parties to resolve this challenging industrial legacy. Progress and updates on our remediation activities are published on a dedicated [webpage](#).

Old Gamsenried Landfill

The Gamsenried landfill site in Gamsen (CH) is owned and managed by Lonza and consists of an old and decommissioned waste disposal area alongside a new and fully permitted disposal site. The latter is used for the disposal of waste incineration slag from the Visp site and the regional waste incineration plant. The older, decommissioned section was primarily used between 1918 and 1978 for landfilling lime hydrate and gypsum sludge. In this area, the current management activities include detailed groundwater monitoring and a pump-and-treat approach to polluted groundwater at the edge of the landfill.

Detailed investigations identified the section of the landfill that could pose the greatest risk to the groundwater, and related financial provisions for a first remediation phase were made in 2021. To minimize risks to the groundwater during the remediation and to improve the containment of the old landfill, an extended hydraulic barrier is proposed for installation in the coming years. Detailed hydrogeological investigations showed that a slurry wall is best suited for this purpose. Provided that the necessary permit is granted, the construction work for the slurry wall is planned to commence in 2025. Information and updates on our activities relating to the old Gamsenried landfill are published on a dedicated [webpage](#).

Ecosystems and Biodiversity

Growing consumption of natural resources puts pressure on natural ecosystems and species. As demonstrated by the planetary boundaries model (Stockholm Resilience Center), this results in an overdraft effect across several dimensions of the model including climate change, biosphere integrity, and freshwater cycles. Biodiversity loss is a result of a range of cumulative factors including average temperature increase, changing patterns of water availability, land and marine use intensity, eutrophication and pollution.

In the pharma and biotech industry and across the value chain, these trends are well recognized and companies have developed approaches to tackle common issues facing the industry such as the need to reduce GHG emissions, limit water use, eliminate contamination, and recover biodiversity.

We view both climate action and water conservation as critical topics for ecosystems and biodiversity which received high ratings on our materiality assessment. We aim to contribute to the ecosystem regeneration with our policy, targets, program achievements and further commitments (see the respective sections in this report, pages 32 to 38), and we continue to document our progress in this area. We also report on the restoration of biological diversity through our land remediation programs (see Remediating Legacy Issues in our Waste section).

To reduce similar environmental impacts across the value chain, we engage our supply chain network within our Responsible Sourcing Program (see Supply Chain Responsibility section).

Biosphere integrity and biodiversity have not specifically been identified as high-ranking elements within our materiality map because our activities are confined to industrial sites and do not encompass other land or forest use, and we only engage with very specific and managed marine use.

We do, however, acknowledge our responsibility to increase biodiversity restoration activities. In 2023, we started to analyze the ecosystem and biodiversity status of sites and activities, and identifying restoration opportunities using the Science Based Targets for Nature (SBTN) methodology. We will build on this analysis to develop a consistent approach in the coming years. We are also working to replace some solvents and raw materials from synthetic production with bio-based alternatives, such as alcohols and other fermentation products.

Our sites have been initiating various activities to enhance their lands and surroundings. Our site in Verviers (BE) cultivates outdoor beehives, and our Greenwood (US) site supports and maintains a wildlife reserve adjacent to the site. Our global colleagues are each entitled to one paid volunteering day each year, and many choose to use this to focus on nature conservation and restoration.

To support efforts to strengthen ecosystems and biodiversity beyond our value chain, we made a significant donation to the Living Lakes initiative of the Global Nature Fund, a specialist organization which develops and maintains global nature conservation and education programs. The Living Lakes Biodiversity and Climate Project is an ambitious global effort to catalyze the conservation of lakes and wetlands for the benefit of both biodiversity and communities.

Innovating for Sustainability

We are committed to creating value for society by delivering innovative, science-based solutions for our customers in the healthcare industry and their patients. For an overview of our most important innovation activities, please refer to the innovation highlights, which are part of the divisional updates in our 2023 Annual Report.

Business-to-business contract manufacturing forms a large proportion of our business. In this context, staying up to date with production technology and streamlining manufacturing processes is important in improving efficiency.

In line with our commitment to SDG 9 (Industry, Innovation and Infrastructure), we have updated our Sustainable Design Standard. This standard highlights the best solutions for reducing energy consumption, GHG emissions, water consumption, waste production and total cost of ownership (CAPEX plus OPEX) for the useful life of an asset for the most common utilities. It also includes new guidance for onsite renewable electricity generation, selection of refrigerant and asset lifecycle management. If it is not possible for a project to comply, a robust explanation and alternative solution must be given.

In our Small Molecules division, organic solvents play an important role in the manufacturing process. We continue to improve the efficient use, reuse and recycling of solvents. This reduces our environmental footprint by minimizing the consumption of fresh solvents and the amount of waste that is generated and treated. We also worked with some of our major customers to establish this practice, which benefits our company, our customers and the environment. We aim to show our partners that using recycled solvents is feasible from a technical and quality perspective and explain how it is key to achieve our common decarbonization plans. In parallel, these projects reduce production downtime through de-bottlenecking and simplified logistics. In 2023, a new project was started to install a pervaporation unit to increase solvent recovery capabilities in Visp. The solvent recycling projects implemented in Small Molecules processes in Switzerland and China avoided more than 2,000 tons of wastewater being incinerated by treating it with other technologies, saving more than 400 tons of fuel-related CO₂-eq. In addition, we currently recycle over 10,000 tons of solvents, reducing incineration and consumption of fresh solvents, avoiding approximately more than 40,000 tons of CO₂-eq per year.

In our Biologics facilities, automated cleaning in place (CIP) is used to clean equipment and transfer lines. The project team has now developed a new concept which makes the cleaning process faster and less waste and water intensive. The new concept, using an "inline dilution" for the CIP agents brings a reduction in cycle time estimated to be around 11,500 hours per year, compared to the standard CIP station. Savings from water for injection (WFI) and waste reduction are estimated to be more than 30%.

SDG 9 Industry, Innovation and Infrastructure

"Our Sustainable Design Standard ensures that our long-term growth ambitions can co-exist with our sustainability commitments. In applying the standard to all construction projects, we are future proofing our investments and contributing to our ESG targets."

Jean-Christophe Hyvert,
President, Biologics



People and Society

All of our behaviors, activities, policies and practices support our purpose to enable a healthier world. We provide goods and services to our customers, which support them in developing and delivering therapies and medicines to patients.

We take a systematic approach to supporting and empowering our employees, and the communities in which we operate. Our people are central to the success of our business and we offer many opportunities for them to improve their skills, build experience and grow their careers. We provide safe workplaces, care for wellbeing and encourage colleagues to be involved in creating a positive and inclusive working environment and culture.

When it comes to financial donations, we focus our support on charitable and educational institutions that align with our priority SDGs. We engage in a range of initiatives to deliver benefits to our stakeholders, including the local communities in which our employees and their families live. By cultivating relationships and engaging with people in our communities, we strive to create sustainable value at a local level across our network.

Occupational Health and Safety

We continue to advance comprehensive occupational injury and illness prevention programs. High occupational health and safety standards assure the wellbeing of our people, our customers and others who attend our sites.

☺> The EHS function is organized at a group level with an EHS business partner representing every division, and site EHS functions directed by site management. Relevant metrics and data are reported regularly to the EC and the Board. The EHS groups continually monitor regulations, industry standards and other best practice to meet our obligations and aim for compliance through regular internal and external audits. <☺

We work diligently to eliminate health and safety hazards and incidents, including those that result in injuries and illnesses through rigorous root cause analysis. We continue to focus on our Vision Zero program that has led to a considerable reduction in safety incidents. Ultimately we strive for zero workplace injuries, process incidents, or environmental incidents.

☺> We have set site level targets for safety corrective actions (safety CAPAs) which are generated by colleagues in our facilities. This program drives the identification and closure of safety-related observations and improvements across our sites. The program has moved the focus from basic injury-based metrics to a leading indicator driving employee behavior and involvement. The program resulted in more than 35,000 identified, documented and closed safety improvements in 2023, largely detected and corrected by our manufacturing workforce. <☺

☺> Labor practices and safe working conditions are defined in standards, and the implementation of these standards is the responsibility of site management, reporting to the respective Division Head of Operations. Each site has an EHS manager responsible for the occupational safety process, target setting and ensuring the site meets local targets. Every employee contributes by identifying risks and unsafe conditions and correcting them through the safety CAPA program, and working safely at all times. <☺

While our Safety and Sustainability policy defines high-level principles, our corporate EHS management system (fully aligned to ISO 45001 requirements) describes the essential administrative elements for successful EHS management. ☺> Examples include planning, compliance, training, incident investigation, performance reporting, emergency preparedness, inspections and audits, and management review. <☺

Our corporate standards establish additional requirements for managing specific EHS hazards or topics. Topics can include chemical safety, process safety, waste and wastewater management, contractor management, site security and business continuity planning, and critical safe working standards (such as confined space entry, personal protective equipment and fall protection).

☺> Local EHS standards address both our corporate EHS expectations and local legal requirements. The standards guide our actions and clarify specific roles and responsibilities. Some sites are certified according to the occupational safety standard ISO 45001 or Responsible Care. <☺

☺> We regularly audit sites and locations – on average every three years – to aim for compliance with rules and regulations, technical integrity and effective management systems. We actively monitor our performance in occupational health and safety, and distribute a monthly analysis report to employees. These reports and subsequent activities are carefully tracked so that approaches can be adapted accordingly. <☺

Hazard Identification, Risk Assessment and Incident Investigation

Work-related hazards are addressed through hazard identification and reporting (including near-misses), risk assessments, job safety analyses, site inspections and process hazard reviews. Risk reduction follows the hierarchy of controls – often in combination – to reduce the likelihood and/or severity of harm. Site employees are trained to use these tools, and local and global EHS leaders collaborate with each site to ensure the workplace is safe and productive.

The reporting of unsafe conditions and near-misses is encouraged, with site-specific targets based on the number of corrective actions implemented to mitigate any identified potential hazards.

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

Occupational Health Services

☺> Operating sites have processes in place to recognize, evaluate and control occupational health risks. <☺ Where required, we have supplementary medical programs. All manufacturing sites have a designated clinician or physician to administer medical support and evaluate occupational injuries or illnesses. The company ensures confidentiality of any personal health related information for employees who participate in these programs, or use occupational health services, by safeguarding that information in compliance with applicable law. The company does not utilize personal health related information received from occupational health services as a basis for favorable or unfavorable treatment of workers.

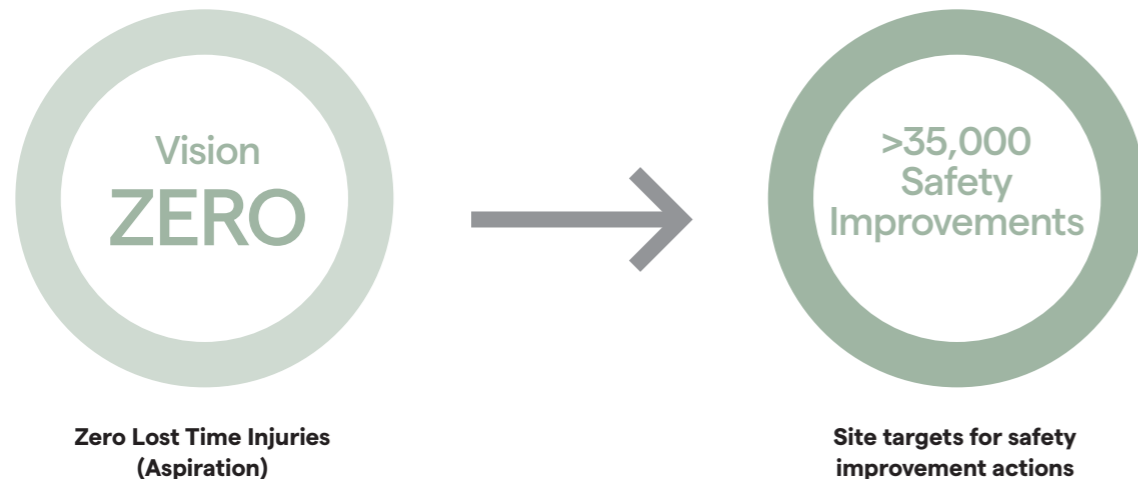
Worker Participation, Consultation, Communication and Training on Occupational Health and Safety

☺> Worker participation is essential to improve safety. In many cases, sites have a safety committee integrated into the EHS council to oversee all safety-related matters. Additionally, all sites are required to conduct frequent safety meetings, or have standard agenda items in all teams, and escalate any identified safety concerns. <☺

Our site in Walkersville (US) conducted a Health & Safety Fair, which included the county's Fire Department, to provide demonstrations and training for fire extinguishers using real fires. Activities also included using special goggles to simulate what a person would see and experience while under the influence of intoxicants. Money collected was donated to a local non-profit agency that provides services for victims of violence. Additionally, in 2023, the site achieved more than 1,300,000 work hours without a lost time incident.



Safety Target



☑️ All sites are required to conduct safety training on hazardous materials (HazCom), critical safe work procedures, evacuation and process safety, among others. ☹️ As required in our EHS Management System, each site is required to establish and maintain a safety and sustainability training matrix and plan, which includes a listing of required training topics, training frequencies and methods, either by job title or similarly effective means. It integrates topics that reflect changes in site activities, risks and regulations.

☑️ Sites continue to create the safest possible working environment through the inclusion of colleagues in our Be A Safety Leader initiative as well as operational excellence programs. ☹️ Colleagues understand how to actively contribute and lead the day-to-day process of ensuring safety within the working environment. Sites develop creative approaches to conducting hazard assessments, defining critical behaviors and providing coaching at all levels to support implementation.

Our site in Nansha (CN) takes colleague safety very seriously. In 2023, the site marked more than 11 years without a lost time incident. The site came second place in the Emergency Response Skill Competition – Confined Space rescue out of more than 40 teams from more than 30 companies in Nansha District. The site was also awarded “the Model Company in Safety Production” from the Guangzhou Municipal Government, and earned the “Environmental Integrity Enterprise” award for the third year in a row.



Promotion of Worker Health

Our people are fully committed to the critical importance of health, safety and injury prevention. They understand that investing in prevention, health and wellbeing ensures colleagues remain fully engaged. Health programs are managed at site level. In 2023, we continued with our wellbeing portfolio and included in our offerings financial wellbeing events for employees. We focused on creating more awareness about our Employee Assistance Program (EAP) and other support services with support from our leaders.

Prevention and Mitigation of Occupational Health and Safety Impacts

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

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

Work-Related Injuries

☑️ Over the course of 2023, we recorded a total of 21 Lost Time Injuries¹⁸, a minor increase compared to last year’s number (20). The number of Recordable Incidents¹⁹ was 95 in the reporting year. ☹️ All incidents are analyzed, identifying the most probable causes and corrective actions. The depth and detail of each investigation, the investigation method and the level of participation by local management, employees, and other functions, are commensurate with the nature and scale of the incident and its impact. Comparison within the industry shows that our safety management system is effective and incident rates are similar to those of peer companies.

¹⁸ Lost Time Injury: injury or illness involving one or more days away from work.
¹⁹ Recordable Incident: follows OSHA methodology.

For all Lonza sites at the year	2021	2022	2023
Lost Time Injury Frequency Rate ²⁰ Per 1,000,000 worked hours	0.35	0.52	0.54
Recordable Work-related Injury Rate Per 200,000 worked hours	0.52	0.50	0.48
Fatalities	0	0	0

The majority of injuries recorded and analyzed in 2023 resulted from slips, trips, falls, chemical contact, material handling, sprains and strains, which are common types of injuries in our industry. There were no incidents or injuries resulting from commuting transport organized by the company. ☑️ In 2023, we launched a special emphasis program to focus on the reduction of slips, trips, and falls (STF). The program covers key element of an effective STF program including common at-risk behaviors. ☹️

Lost Time Injury Frequency Rates (LTIFR) are calculated based on one million hours worked. Data on incidents and workhours represents the employed workforce and agency workforce/ directly supervised contingent workers in regular manufacturing processes.

Diversity and Equal Opportunity

We understand that our diverse workforce is an ethical and cultural imperative, as well as giving us a commercial and competitive advantage. For all these reasons, we work to create an inclusive environment and put our people at the heart of our business. As stated in our Code of Conduct, we do not tolerate any form of discrimination, harassment or bullying on the basis of ethnicity, national origin, color, religion, marital status, sexual orientation, gender identity or gender expression, creed, age, sex, disability, veteran status or any similar characteristic throughout our supply chain, including our business partners.

²⁰ Injury rates are subject to change over time as new cases are added, and case classifications change in accordance with applicable requirements.



Our Inclusion, Diversity and Belonging (IDB) initiative promotes inclusion and reflects diversity across backgrounds, characteristics, preferences, beliefs and perspectives with the goal of ensuring Lonza colleagues feel a sense of belonging. Lonza’s IDB initiative supports Lonza’s mission of making a meaningful difference by celebrating

the difference we make together. ☑️ Composed of volunteers across functions, divisions and sites, the IDB Council works to devise and manage IDB programs and share knowledge, insights and experiences across our network. The Council is supported by a global community of site ambassadors and sponsored by a dedicated steering committee comprised of senior leaders from Legal, HR and Communications to represent and advocate for IDB at the EC and Board level. ☹️

In 2023, the IDB initiative sponsored global IDB “spotlight” days, celebrating international days of diversity with educational information and speakers. This year, we shined a spotlight on International Women’s Day, International Pride Day, International Day of the World’s Indigenous People, International Day for People of African Descent and International Day of Persons with Disabilities.

The RiseUp@Lonza program, an employee resource group dedicated to creating opportunities for women to build relationships, gain confidence and be inspired, was financially and logistically supported by Lonza in 2023. The business sponsored the platform for the RiseUp mentoring program and encouraged colleagues to join global events of the initiative.

	2021	2022	2023
Female New Hires	40%	40%	40%
Female Employees	36%	36%	37%
Female Management ²¹	26%	28%	29%
Female Executive Committee Members	29%	25%	17%
Female Board Members	38%	38%	38%

We also made progress on the roadmaps of our selected SDGs within this space: SDG 4 (Quality Education) and SDG 5 (Gender Equality). SDG 5 has measurable targets related to IDB, which are directly linked to our company remuneration program. Further details about ESG target achievement are included in the [Remuneration section](#) of the Annual Report.

The Quality Education program has formed a Global Training Network to define and deploy Lonza’s global approach to training. The network includes training experts from across functions across our business. A central platform giving visibility and accessibility to all Lonza employee training was established in 2023.

²¹ Reflects females at director level and above.

2023 Safety Performance

95

Recordable Work-Related Injuries

21

Lost-Time Work-Related Injuries

0.54

Lost Time Injury Frequency Rate (Per 1 Million Hours)

2.4

Recordable Work-Related Injury Rate (Per 1 Million Hours)

39

Million Hours Worked In 2023

Lonza Diversity 2023

	Board		EC		Managers		Non-managers	
	Female	Male	Female	Male	Female	Male	Female	Male
	38%	63%	17%	83%	34%	66%	37%	63%
Age structure								
Under 30	0	0	0	0	5%	4%	27%	20%
30 - 50	0	0	0	20%	74%	66%	57%	58%
Over 50	100%	100%	100%	80%	21%	31%	15%	22%





☺> A Gender Equality multi-year roadmap has been established with initiatives to build a strong pipeline of female leaders and to support sustainable representation of females in leadership. Specifically, we aim to increase the percentage of women in management roles to 35% by 2035.

We train hiring managers on the importance of removing obstacles that may inhibit the success of female candidates and colleagues. We also share best practices and learnings internally through diversity representatives in our sites and initiatives to support women at all levels (e.g. via employee resource groups). Finally, we rolled out training programs to engage our employees with diversity topics such as unconscious bias. The provision of equal pay has been a primary foundation of our global reward practices for many years. We are reviewing equal pay and pay transparency in our business holistically, beyond being compliant with various local country regulations (including Equal Pay reporting under the Art 13a of the Swiss Federal Act on Gender Equality and the UK Gender Pay Reporting requirements). We also strengthened the foundation of bias-free pay decision-making through the launch of a series of education programs for managers around total reward topics. <☺

Investing in our People

☺> Our global People Strategy is based on the four pillars: **Come, Stay, Grow and Make a Meaningful Difference**. <☺ To help understand these pillars, we monitor and analyze data points related to recruitment, retention and turnover at different levels.

Lonza Global People Strategy

<p>Come</p>  <p>Attracting the right people</p>	<p>Stay</p>  <p>Empowering environment for our people</p>	<p>Grow</p>  <p>Developing our people</p>	<p>Make a meaningful difference</p>  <p>Connecting people inside Lonza and beyond</p>
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Our Core Values

Our Employee Value Proposition (EVP), “A Meaningful Difference”, reflects how our colleagues work to fulfill our purpose to enable a healthier world. This purpose is underpinned by our four core company values:

- Integrity: Having the accountability, honesty and courage to speak up and do the right thing
- Inclusion: Being supportive, respectful and responsible towards others
- Innovation: Being engaged, curious and enquiring to find the best possible solution
- Initiative: Being self-driven, motivated and committed to focus and deliver

Our values define how we behave individually as employees and collectively as a community. They reflect the way we work together internally and collaborate with stakeholders externally. Through shared values, we aim to create a unified “One Lonza” culture, which is recognized and respected by our stakeholders across our global network. The values also guide and direct our external behaviors, encouraging us to focus on caring for our colleagues, our customers and our planet.

☺> To further embed these values, they have been incorporated into our cross-functional and cross-regional online recognition program, BRAVO. <☺ BRAVO enables a positive and self-reinforcing working environment. Using this platform, more than 68,900 individual “thank you” messages and awards were shared across the business over the course of 2023.

Employee Recruitment, Retention and Development Recruitment (“Come”)

As part of our ambition to attract highly capable candidates who bring potential and create sustainable value, we ☺> focused on improving the onboarding experience of new colleagues. In 2023, we deployed a global digital onboarding platform and designed a new framework for onboarding events in key sites. We also continued to leverage our global Talent Referral Program which was launched in 2022. <☺ In 2023, 509 new colleagues referred by our people were hired through this program.

Employee Engagement and Retention (“Stay”)

We empower our people by rewarding sustained high performance. ☺> Our reward programs are regularly benchmarked to ensure competitiveness within the industry and reviewed in line with feedback from our people surveys. <☺ In 2023, key initiatives included:

- The expansion of our employee share purchase plan to additional locations, making a total of 85% of all Lonza employees eligible to join the program, of which 26% have enrolled in 2023. The share purchase plan allows employees to buy Lonza shares at a discounted price and receive a free share for each share purchased, after a three-year blocking period
- The expansion of the Lonza Restricted Share Units Plan to include mid-level employees in key markets. This plan allows employees to be nominated to receive restricted stock on a three-year holding period basis
- The continuation of our Global Hybrid Work Policy, which allows flexibility for eligible employees to work remotely up to two days per week on a regular basis. Eligible employees were also empowered to “Work from Anywhere” for up to 28 days in a rolling 12-month period in an international location. In 2023, 738 colleagues benefited from “Work from Anywhere”
- The availability of healthcare, health promotion, fitness, wellbeing and disease prevention programs as well as income protection and disability benefits provided in line with market practices, complementary to country social security provisions. We regularly review these benefits against legislative changes and benchmarks to ensure our employees are financially secure in case of adverse life events

- The expansion of our wellbeing portfolio to include financial wellbeing events for employees. We focused on increasing awareness about our Employee Assistance Program (EAP) and other support services with leaders. As a result of increased communication, utilization of the program increased
- The continued offer of childcare support through local government schemes at a market level
- Severance and social plans, which we continued to provide in line with market practice as part of our commitment towards employee financial security
- Compensation for atypical working hours, which followed local legislation and varied across our global site network. This includes – but is not limited to – additional annual leave, shift premiums, overtime payments, standby and call-out allowances and one-time recognition awards to compensate extraordinary efforts for special projects

Development (“Grow”)

Our focus in 2023 was supporting the employee growth. The key initiatives in 2023 were:

- ☺> The launch of the “Employee Development Journey” program to enable employees to take charge of their career. A set of tools, including mentoring, conversation and development planning guides was provided to managers and employees. <☺ As a result of the launch of the campaign in July 2023, we have seen an increased record of employee development plans from 38% in July to 57% at the end of the year
- ☺> The integration of our Lonza Leadership Framework – Care, Communicate, Coach – into our organization and people processes <☺
- ☺> The continuation of programs such as the Accelerated Management Development Program (AMDP) and Core Leadership Impact Program (CLIP) to develop effective and sustainable leadership skills <☺

Over the course of 2023, we invested time in assessing and evolving our talent and succession pipelines. ☺> This resulted in an increased internal fill rate (positions we were able to fill with internal candidates) to 39.2% in 2023 <☺ (from 29.8% in 2022). ☺> Our internal promotion rate (percentage of employees moving to a higher position within Lonza) had a slight decrease to 18.6% <☺ (versus 21% in 2022). Both figures trend in line with our industry peers, and we strive to continuously improve.

	2021	2022	2023
Internal Promotion Rate	22.7%	21.0%	18.6%
Internal Position Fill Rate	24.2%	29.8%	39.2%
Total Turnover	12.7%	12.8%	10.5%

SDG 4 Quality Education

“To motivate colleagues to come, stay and grow at Lonza, we are focused on offering continuous learning opportunities, nurturing professional development, and promoting internal talent.”



Philippe Deecke,
Chief Financial Officer (CFO)

Performance Management

The Lonza compensation program, launched in 2022, is now fully established. It sets a strong foundation for sustainable performance management practices:

- ☺ Each employee is required to set one behavioral goal and one business goal aligned to our strategic priorities
- The performance review process is linked to our incentive plans, so employees feel rewarded for their efforts and contributions
- ESG targets comprise 25% of the company payout factor, with the remainder of the bonus structure comprised of financial targets <☺

Further details about the Lonza compensation are included in the [Remuneration section](#) of the Annual Report.

Employee Engagement

☺ To monitor the impact of the programs supporting our People Strategy, and to better understand employee perceptions and feelings, we conducted our global Voice of Employee (VoE) survey through an independent external vendor twice in 2023.

The survey outcomes were reviewed at a company, division, site and team level. Areas of opportunity were identified at a manager level, to allow them to understand and act on general and specific team needs. Our people leaders have been given support to develop improvement programs to address specific challenges in their organization.

In 2023, the survey indicated improvement in the combined index for the employee development area (growth and career drivers), with employees responses rating 67 to “having the opportunity to learn and grow” and 67 to ‘managers having meaningful conversations on career development’.

The overall Employee Engagement Index is calculated from the scoring of the question: “How happy are you working at Lonza?” and the statement “I would recommend Lonza as a great place to work”. While the Engagement Index has remained more or less stable, the response rate steadily increased. <☺

Voice of Employee survey	2021	2022	2023
Response Rate	65%	78%	81%
Employee Engagement Index	69	71	70

Investing in Communities

Our Approach to Donations and Volunteering

In many communities, we take on multiple roles: as neighbor, employer, economic contributor and charitable donor to local or global non-profit organizations and educational institutions. While our financial donations are important, the greatest charitable contributions come from our colleagues who volunteer to support projects that are meaningful to our communities.

We focus our charitable giving and volunteer activities on projects that align with our selected SDGs, and where we feel that our contributions can make a significant difference, as shown in the examples below. We evaluate the recipients of financial contributions to ensure they promote high standards of ethics and compliance and incur a low proportion of administrative expenses.

Each employee is granted one day off per calendar year to engage in volunteering activities. In 2023, Lonza employees gave back over 26,300 hours of volunteering to local communities. We have formed a network of colleagues from larger sites – those with more than 100 employees – to share best practices and experiences for corporate responsibility. This team connects on a quarterly basis and representatives from each site share updates on volunteering and other community engagement programs.



**Good Health and Wellbeing
Supporting Access to Healthcare Donations**

We continue to support Project HOPE’s core mission fund. Project HOPE is a global health and humanitarian organization that provides direct healthcare services, equips clinics and hospitals, educates local healthcare workers, and helps people access the healthcare services they need. Project HOPE utilizes its funding to support those impacted by emergencies and natural disasters where the need is greatest, such as mothers and children, refugees and migrants.



We continue to support various national and local organizations including the Swiss Red Cross and the American Red Cross. Our contribution to the Swiss Red Cross funds its individual assistance program for healthcare costs of people in need.



Our contribution to the American Red Cross supports disaster relief, including crises caused by severe weather events, enabling the organization to prepare for, respond to, and help people recover from such events. In addition, our support of the organization’s blood services enables the collection, testing, typing, and distribution of blood products to those in need.



Volunteering: United Way of Brazoria County Baking Contest

Our colleagues in Houston (US) held a baking contest to raise money for the United Way of Brazoria County, supporting educational services to children, youth, and adults. The site had over 120 employees attending this fundraiser, and the money will be used to pay for school supplies.



Donations to Disabled Veterans

Colleagues from our Tampa (US) site gathered donations for Disabled American Veterans. The donations will support veterans who face health problems, and who often encounter employment issues and struggles around accessing benefits.

Volunteering: Feeding Tampa Bay Volunteer Event

Feeding Tampa Bay works to provide nutritious food so students can excel, parents can focus on their livelihood and seniors can maintain a healthy lifestyle. In support of the organization, volunteers from our Tampa (US) site prepared and sorted food bundles for distribution to local families.



Sleep in Heavenly Peace (“SHP”) Team Building Event

Sleep in Heavenly Peace (SHP) builds beds for children and families in need. Colleagues at our Walkersville (US) site participated in a team building event for SHP, where they assembled beds and delivered them to recipients in the local community.



Run Against Cancer Fundraiser

KWF (Queen Wilhelmina Fund) is a Dutch foundation dedicated to fighting cancer through scientific research, information, patient support, and fundraising. Colleagues from our Geleen (NL) site represented Lonza in the ASML ¼ Marathon in Eindhoven to raise funds for KWF, and took part in the KWF Run Against Cancer Fundraiser.

Volunteering: Ronald McDonald Children’s Foundation Bringing Cheer and Smiles to Children

The Ronald McDonald Children’s Foundation cares for parents of sick children in hospital by providing accommodation, food and support as their child receives medical treatment. Lonza’s Basel (CH) colleagues volunteered to prepare food for parents and children, tend the onsite garden, and reorganize the playground.



**Quality Education and Gender Equality
Supporting Mothers in STEMM Careers Donation**

We have set an ambition to increase gender equality across the workplace. In alignment with this, we contribute to the work of Mothers in Science (MiS), an international non-profit organization providing research and support for mothers working in Science, Technology, Engineering, Math and Medicine (STEMM) careers. MiS raises awareness of career obstacles faced by mothers working in STEMM fields and advocates for workplace equality and inclusion, providing resources for industry, academia and individuals. Our support continues to fund global research that addresses these challenges. It also supports the development of webinars and the expansion of its mentorship program, whereby mothers new to STEMM fields can be paired with volunteer mentors who have navigated the balance of motherhood and a career.



Supporting Women in India Donation

Since 2020, we have provided funding to Hand in Hand (HiH) India – a non-profit organization focusing on child labor elimination and education, access to healthcare, empowerment of women through livelihood creation and skill development, natural resource management, and solid waste management. Our commitment in 2023 supported rural and tribal communities with comprehensive health camps; health awareness campaigns supporting women and adolescents; screening and treatment for non-communicable diseases; providing equipment to under-resourced health facilities.

Our contributions also funded food for HiH’s Green Friends, a team providing sanitation services to households in India, facilitating the segregation of waste at source and ensuring proper disposal. More than 70% of HiH’s Green Friends are women, and they are often the sole providers for their families. By supporting their employment and skills development, HiH provides them with wages and dignity in the workplace.



Scholarships for Women and Under-Represented Groups in STEM Donation

Our Houston (US) site established a US \$5,000 scholarship fund for under-represented students enrolled at any university or community college in the Houston area. The scholarships will be granted as US \$500 “book scholarships” to be awarded each semester to women and under-represented groups in STEM who are interested in pursuing a career in biomanufacturing and biopharma.

In addition to receiving a scholarship, recipients are invited to visit our Houston site, meet with site leaders, take lab tours and be paired with an Education Outreach committee member mentor. Scholarship recipients will also be introduced to our recruitment team and relevant hiring managers as a networking and education opportunity.



STEM for Her Day 2023

The STEM for Her organization promotes education, to create awareness, excitement, and opportunities among girls and young women in the Washington, DC area to launch successful STEM-related careers. The latest event entailed 19 breakout sessions and a panel discussion. More than 90% of school age participants were made up of minority groups.



**Environment
Lake and Wetland Protection for
Biodiversity and Climate Network
Donation**

In 2023, we donated to the Global Nature Fund (GNF), a not-for-profit organization for the protection of the environment and nature. The donation was used to finance GNF’s Living Lakes program, a biodiversity and climate network which aims to protect more than a hundred lakes and wetland areas worldwide. Emphasis is placed on community development and upskilling, as well as biodiversity and climate positive wetland management.

The Living Lakes program has supported the development of a co-operative network of local organizations active in lake and wetland protection and restoration. They are united in the aim to protect and restore aquatic ecosystems from impacts including farming, fisheries and tourism using nature-based techniques. Learnings and results are shared at a regional, national, and global level to improve the implementation of lake protection legislation and management plans.



Dutch Sheep Herder Program

Together with neighboring companies, our Geleen (NL) site initiated an activity to maintain its open landscape areas between buildings in a more environmentally friendly way. On a rotating schedule, a herd of sheep and goats feed on the grassy areas of the site and are now part of the site’s local landscape maintenance routine.



Volunteering: Community Clean Ups

Organized by the Walkersville (US) Community Impact Committee in partnership with our sites in Visp (CH), Wayne (US), and Durham (US), Lonza participated in World Clean Up Day. World Clean Up Day is an annual global social action program aimed at combatting the global solid waste problem, including marine debris.

In June 2023, the Visp Green Team launched the Wander Clean Up Program, which gives Lonza colleagues in Visp the opportunity to clear local hiking trails of litter and debris. Since the launch of the programme, more than 180 colleagues have collected over 60 kilograms of waste along 300 km of hiking trails.



In Greenwood (US), Lonza colleagues came together to support a community event organized by Keep Greenwood County Beautiful and Lake Greenwood Cleanup. As part of the event, colleagues volunteered their time to remove litter from Lake Greenwood, and demonstrated Lonza’s commitment to supporting sustainability in the local community.

Rubbish Renewed Fashion Show

In August 2023, colleagues at our Bend (US) site hosted the Rubbish Renewed Fashion Show. This show is an annual event that promotes reducing waste by highlighting creative clothing that recycles used supplies or materials that would be otherwise discarded. A portion of funds raised at this event was used to support waste reduction among manufacturing businesses in Central Oregon.



Appendix

About the Report

The reporting period is the 2023 calendar year. This is our sixth Sustainability Report following the principles of the GRI. We will continue to report on an annual basis. Our GRI Report 2023 is prepared in accordance with the GRI Standards for the period from 1 January 2023 to 31 December 2023. The content of this report has also been prepared in accordance with Art. 964b of the Swiss Code of Obligations. We also adhere to the requirements of Art. 964j-k of the Swiss Code of Obligations. We have determined that we are exempt from the obligations of due diligence and reporting on minerals and metals from conflict-affected areas under Art. 964j-k of the Swiss Code of Obligations.

The external auditor KPMG AG has been engaged by Lonza to provide independent assurance for the sustainability information under the Lonza material topics disclosed in the Sustainability Report. KPMG AG has also been engaged to provide assurance on Lonza's compliance with Swiss Code of Obligations Art. 964b. KPMG AG's limited Assurance Statement is available at the end of this report.

Separately, we obtained limited external assurance of the adequacy of our compliance management system with regard to due diligence obligations in the area of child labor, which was established in accordance with the due diligence obligations pursuant to Art. 964j-k CO and the Ordinance on Due Diligence and Transparency with Regard to Minerals and Metals from Conflict-Affected Areas and Child Labour (VSoTr). The assurance report was provided to our senior management and board of directors, in accordance with EXPERTsuisse guidelines for the PS-CH 980 auditing standard child labor due diligence program.

Contact Points for Queries



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For investor queries, please refer to the Investor Relations section of our website for contact details.

GRI Content Index and SASB Index

GRI standard	Disclosure	Page	Comments	SDG in focus	SASB*
GRI 1: Foundation 2021		52			
General Disclosures					
GRI 2: General Disclosures 2021	2-1 Organizational details		<p>Lonza Group Ltd is a public company, listed on the Swiss Stock Exchange (SIX) and with a secondary listing at the Singapore Exchange Securities Trading Limited (SGX-ST).</p> <p>Lonza Group Ltd Muenchensteinerstrasse 38 4002 Basel, Switzerland Tel +41 61 316 81 11 Fax +41 61 316 91 11 www.lonza.com</p> <p>For location of operations, please consult our website: https://www.lonza.com/about-us/our-locations</p>		
	2-2 Entities included in the organization's sustainability reporting		<p>The information in this report concerns all under Lonza Group Ltd operational control during 2023, including subsidiaries. Joint ventures are not included unless specifically mentioned.</p> <p>Financial reporting and accounting principles are available in the Notes to the Consolidated Financial Statements in the Annual Report 2023.</p> <p>All environmental data relates to Lonza's continuing operations. Unless otherwise stated, the reporting boundaries for environmental data include the facilities for which we have operational control, own either the facility or significant relevant equipment, and where data is readily available and adequately representative. Facilities outside the reporting boundaries are smaller-sized leased warehouses and office spaces with comparatively insignificant energy consumption.</p>		
	2-3 Reporting period, frequency and contact point	52			
	2-4 Restatements of information		If, in individual cases, a new form of presentation, calculation method or optimized data collection has led to other results for the previous years, then this is noted under the respective disclosures.		
	2-5 External assurance	52, 63-66			
	2-6 Activities, value chain and other business relationships		<p>Please visit our website www.lonza.com</p> <p>Significant changes to the organization and its supply chain can be found on pages 8 and 9 of our Annual Report 2023</p>		
	2-7 Employees	12-13			HC-BP-330a.1HC-BP-330a.2
	2-8 Workers who are not employees	13	Reported under the contingent workers' category.		HC-BP-330a.1HC-BP-330a.2
	2-9 Governance structure and composition	10-11			
	2-10 Nomination and selection of the highest governance body		Please see the Corporate Governance section of our Annual Report 2023		
	2-11 Chair of the highest governance body		Please see the Corporate Governance section of our Annual Report 2023		
	2-12 Role of the highest governance body in overseeing the management of impacts	10-11, 59			
	2-13 Delegation of responsibility for managing impacts	10-11			

GRI standard	Disclosure	Page	Comments	SDG in focus	SASB*
General Disclosures cont.					
	2-14 Role of the highest governance body in sustainability reporting	10-11			
	2-15 Conflicts of interest	11, 21-22			
	2-16 Communication of critical concerns	16-17, 21-25			
	2-17 Collective knowledge of the highest governance body	11	Please also see the Corporate Governance section of our Annual Report 2023.		
	2-18 Evaluation of the performance of the highest governance body	11			
	2-19 Remuneration policies		Please see the Remuneration section of our Annual Report 2023.		
	2-20 Process to determine remuneration		Please see the Remuneration section of our Annual Report 2023.		
	2-21 Annual total compensation ratio		Information is confidential and not disclosed.		
	2-22 Statement on sustainable development strategy	4-5			
	2-23 Policy commitments	6, 22, 25-26, 30, 42-48			
	2-24 Embedding policy commitments	11, 22, 26-28, 31, 42-48			
	2-25 Processes to remediate negative impacts	16-28, 31-40			
	2-26 Mechanisms for seeking advice and raising concerns	22	Our Ethics and Compliance Group provides guidance in recognizing, understanding and complying with the laws and ethical standards that govern our business practices and activities. This is supervised by the Audit and Compliance Committee of the Board of Directors. In addition, we have the Lonza Ethics and Compliance Hotline, operated by an external provider.		
	2-27 Compliance with laws and regulations		Only significant instances of non-compliance are compiled for consolidated reporting. There were no significant instances of non-compliance with laws and regulations which lead to fines or penalties during 2023.		
	2-28 Membership associations	14			
	2-29 Approach to stakeholder engagement	14-15			
	2-30 Collective bargaining agreements	14			
Material Topics					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	15			
	3-2 List of material topics	15			
	3-3 Management of material topics		Compiled under each topic as per this table.		

Ⓐ Assured by KPMG.

GRI standard	Disclosure	Page	Comments	SDG in focus	SASB*
Economic					
GRI 205: Anti-corruption 2016	1. Management disclosures	24		3, 12	HC-BP-510a.1 (losses not reported)
	205-1 Operations assessed for risks related to corruption	24-25	The risk assessment initiated in 2023 began with a global assessment of group-level policies and controls and will continue with a more detailed analysis of operations in the 28 countries with an employee presence. Once this analysis is concluded, we will report on the identified significant risks in the next reporting cycle.		
	205-2 Communication and training about anti-corruption policies and procedures	24			
Supply Chain Responsibility					
	1. Management disclosures	25-28			
	308-2 Negative environmental impacts in the supply chain and actions taken	27		3, 13, 5, 12	HC-BP-430a.1 (all of Lonza's facilities participate in the Rx-360 audit program. We currently do not track the number of Tier 1 suppliers' facilities participating in this program or equivalent)
	414-2 Negative social impacts in the supply chain and actions taken	27		3, 13, 5, 12	HC-BP-430a.1
Environmental					
GRI 302: Energy 2016	1. Management disclosures	31		13, 9, 12	
	302-1 Energy consumption within the organization	31-32	We do not track separately the heating/cooling from the steam consumption. For the energy sold, we only track total energy, and not by type of energy. Fuel consumption is converted to energy using Swiss EPA and US EPA factors. Given the importance of the GHG accounting and for the sake of completeness, the energy consumption from smaller R&D and manufacturing sites which were previously not included in the reporting scope is now also collected on a yearly basis, and was also added to previous years.		
	302-3 Energy intensity	32			

Ⓐ Assured by KPMG.

GRI standard	Disclosure	Page	Comments	SDG in focus	SASB*										
Environmental cont.															
GRI 303: Water and Effluents 2018	1. Management disclosures	32-33	As per the GRI Standard, water stress in an area was assessed using the baseline water stress above 40% from the tool Aqueduct Water Risk Atlas, consulted in 2023. Some sites in the following locations were identified as per the above definition, most being low-water consumers: Mexico, India, Indonesia, China, The Netherlands, Belgium, UK, and US.	3, 9, 12, 6											
	303-1 Interactions with water as a shared resource	32-33													
	303-2 Management of water discharge-related impacts	32-33													
	303-3 Water withdrawal	32	<p>Our numbers are reported as “thousand m³”, which is equivalent to megaliters, as required by this GRI standard.</p> <p>The amount of Total Dissolved Solids in the water sourced is, in general, < 1000 mg/L.</p> <table border="1"> <thead> <tr> <th>Water Withdrawal 2023 [thousand m³]</th> <th>Total from areas with water stress</th> </tr> </thead> <tbody> <tr> <td>Total Water Withdrawn</td> <td>1,313</td> </tr> <tr> <td>Groundwater Wells</td> <td>369</td> </tr> <tr> <td>Public Supply</td> <td>944</td> </tr> <tr> <td>Water Bodies</td> <td>0</td> </tr> </tbody> </table> <p>Note: Corrections were made to industrial water data from previous years, to properly include water used by facilities under our operational control.</p>	Water Withdrawal 2023 [thousand m ³]	Total from areas with water stress	Total Water Withdrawn	1,313	Groundwater Wells	369	Public Supply	944	Water Bodies	0		
Water Withdrawal 2023 [thousand m ³]	Total from areas with water stress														
Total Water Withdrawn	1,313														
Groundwater Wells	369														
Public Supply	944														
Water Bodies	0														
	303-4 Water discharge	34	<p>Our numbers are reported as “thousand m³”, which is equivalent to megaliters, as required by this GRI standard. Water discharge to water bodies is mostly heading for surface water. The volume of water discharge to seawater and groundwater is assumed to be not significant.</p> <p>The amount of Total Dissolved Solids in the water discharged to water bodies is in general < 1000 mg/L, also for water stressed areas. Water discharged to the sewer with Total Dissolved Solids > 1000 mg/L is 1,046 thousand m³. From that amount, 44 thousand m³ are from sites in areas with water stress.</p> <table border="1"> <thead> <tr> <th>Water Discharge 2023 [thousand m³]</th> <th>From areas with water stress</th> </tr> </thead> <tbody> <tr> <td>Total Water Discharged</td> <td>971</td> </tr> <tr> <td>Water Discharged to Sewer</td> <td>927</td> </tr> <tr> <td>Water to Water Bodies</td> <td>44</td> </tr> </tbody> </table>	Water Discharge 2023 [thousand m ³]	From areas with water stress	Total Water Discharged	971	Water Discharged to Sewer	927	Water to Water Bodies	44				
Water Discharge 2023 [thousand m ³]	From areas with water stress														
Total Water Discharged	971														
Water Discharged to Sewer	927														
Water to Water Bodies	44														

Assured by KPMG.

GRI standard	Disclosure	Page	Comments	SDG in focus	SASB*										
Environmental cont.															
GRI 305: Emissions 2016	1. Management disclosures	34-36	We follow the requirements of the GHG Protocol Corporate Standards to calculate our GHG emissions. Note: emissions from energy consumption from smaller sites previously outside the reporting boundary were added, also for previous years.	3, 13, 9, 12											
	305-1 Direct (Scope 1) GHG emissions	36	<p>Biogenic CO₂ emissions from the biomass fuel were 6,600 tons CO₂-eq.</p> <p>A part of our commitment to SBTi, we have reviewed the inventory of the GHG emissions and have decided to include emissions from our fleet and those due to the losses of refrigerants in order to provide a complete picture. Those emissions will be disclosed once the targets are approved, but we estimate the emissions due to the fleet and refrigerants to be very low (around 1% of combined Scope 1 and 2 emissions).</p> <p>Note: emission factors for fuels were updated (also for previous years) with more accurate factors.</p>												
	305-2 Energy indirect (Scope 2) GHG emissions	36-37	<p>GHG emissions from municipal waste incineration are allocated according to the cut-off method.</p> <p>Note: The emission factor for electricity for our site in Singapore was also corrected for 2023 and for previous years.</p>												
	305-3 Other indirect (Scope 3) GHG emissions	37	<p>Note: Our Scope 3 model and datasets used does not support the estimation of biogenic CO₂.</p> <p>Due to review of our Scope 3 model, there was an update to the emission factors for purchased electricity and steam upstream emissions and transmission and distribution, which increased the impacts for category 3 for 2021 and 2022. Emissions from accommodation have been removed from category 6, as per recommendation from the SBTi, resulting in a negligible decrease for that category.</p>												
	305-4 GHG emissions intensity	37-38													
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		<p>Other emissions such as VOC and NOx are also important to our operations and are monitored to ensure compliance with local regulations. Continual investment, technical improvements at emission points and emission control equipment contribute to the control and reduction of such emissions.</p> <table border="1"> <thead> <tr> <th colspan="2">Air Emissions 2023 [t]</th> </tr> </thead> <tbody> <tr> <td>VOC [t]</td> <td>115</td> </tr> <tr> <td>NOx [t]</td> <td>174</td> </tr> <tr> <td>SO₂ [t]</td> <td>4</td> </tr> <tr> <td>Particulate Matter [t]</td> <td>29</td> </tr> </tbody> </table>	Air Emissions 2023 [t]		VOC [t]	115	NOx [t]	174	SO ₂ [t]	4	Particulate Matter [t]	29		
Air Emissions 2023 [t]															
VOC [t]	115														
NOx [t]	174														
SO ₂ [t]	4														
Particulate Matter [t]	29														
GRI 306: Waste 2020	1. Management disclosures	38-39		3, 13, 12											
	306-1 Waste generation and significant waste-related impacts	38-39													
	306-2 Management of significant waste-related impacts	38-40													
	306-3 Waste generated	39	Note: there were minor corrections for the total waste reported for 2022 (slight increase).												

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GRI standard	Disclosure	Page	Comments	SDG in focus	SASB*
Social					
GRI 403: Occupational Health and Safety 2018	1. Management disclosures	42-43		3	
	403-1 Occupational health and safety management system		We maintain an EHS Management System, which has been adapted to meet ISO 14001 and 45001 standards. This program applies to all locations and all employees.		
	403-2 Hazard identification, risk assessment, and incident investigation	43			
	403-3 Occupational health services	43			
	403-4 Worker participation, consultation, and communication on occupational health and safety	43-44			
	403-5 Worker training on occupational health and safety	43-44			
	403-6 Promotion of worker health	44			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	44			
	403-9 Work-related injuries	44-45			
GRI 405: Diversity and Equal Opportunity 2016	1. Management disclosures	45-46		3, 5, 4	
	405-1 Diversity of governance bodies and employees	45			
Employee Recruitment, Retention and Development	1. Management disclosures	46-48			
	Internal promotion rate and internal fill rate**	47	Note: internal promotion rate does not include those employees who were promoted but who are not within the global grading system.	5, 4	HC-BP-330a.1
Employee Engagement	1. Management disclosures	46, 48			
	Employee survey response rate and Employee Engagement Index**	48		5, 4	HC-BP-330a.1

* Sustainability Accounting Standards Board (SASB) – we have aligned our disclosures with the Biotechnology and Pharmaceuticals Sustainability Accounting Standard 2023. As a Contract Development and Manufacturing Organization (CDMO), most of the SASB indicators do not apply.

** Lonza internally developed KPIs.

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TCFD Index

We aim to follow the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). This index addresses disclosures in the four TCFD pillars: governance, strategy, risk management, and metrics and targets.

TCFD Recommendation	Reference
Governance	
Governance and oversight over sustainability and ESG sits with the Board of Directors (Board), specifically with the Chairman of the Board, while the implementation is the responsibility of the Executive Committee (EC).	Sustainability Report 2023: Governance section
The Sustainability and Risk Committee (SRC) and the Safety and Sustainability Steering Board (SSSB) coordinate the sustainability strategy and activities across the company, including climate change and climate-related measures.	
Strategy	
Our ambition is to reach net-zero GHG emissions by 2050. We have set science-based targets for mid-term reductions, and have submitted them to SBTi.	Sustainability Report 2023: supplier decarbonization in Supply Chain Responsibility section and Greenhouse Gas Emissions section
Group functions and individual site roadmaps include concrete actions and projects to support achievement of the corporate goals. These include sustainability by design for new infrastructure and growth investments, efficiency improvements and supplier collaboration and decarbonization.	
The Sustainability and Procurement teams work together to manage climate strategy and actions in the supply chain. We are engaging with the most relevant suppliers to collaborate on reducing our Scope 3 footprint.	
In addition, we have initiated a program to procure and source electricity globally from renewable sources by 2025, where available through power purchase agreements investing in additional production assets.	
We have included several ESG targets in our Group remuneration plan as of 2022. Among others, these include targets for achieving reductions in Scope 1, Scope 2 and Scope 3 GHG emissions and water intensity.	
We are currently focusing on three areas: monitoring our progress against our 2030 sustainability targets, enhancing public disclosures regarding ESG topics and providing guidance and support for sustainability-related initiatives across our global site network. We are re-evaluating our sourcing strategy, taking into account availability of materials, logistics and risks for supply chain disruptions. We have also been strengthening the existing due diligence process for new and incumbent suppliers to identify and minimize the risks in our supply chain, e.g., for environmental, social and labor misconduct.	
Risk Management	
Our ERM program is a critical element of our strategic planning and provides a mechanism and appropriate governance for risk management.	Sustainability Report 2023: Enterprise Risk Management, Climate Related Risks sections
Given the nature of our business, we believe probable climate risks materializing over the mid-term are limited to site-specific natural disasters and extreme weather events, such as hurricanes, floods, wildfires, etc. These risks are managed by site business continuity plans. As a next step we intend to consolidate the financial dimension.	
Metrics and Targets	
We report on our direct and indirect GHG emissions performance and targets (Scope 1, 2 and 3) and other data in the Environment section of this report and in our most recent response to the CDP climate questionnaire, which is publicly available. We are also participating in research projects to evaluate carbon capture technologies. ESG metrics, including GHG targets, are included in company performance measurements and reward and recognition allocations for the global employee community, including the EC.	Sustainability Report 2023: Our Journey, Greenhouse Gas Emissions sections

Swiss Non-Financial Reporting Requirement (Art. 964b CO) Index

> The table below points out the content which is reported in compliance with the requirements of Art. 964b of the Swiss Code of Obligations (CO). <

Area	Topic	Page
General Requirements	Materiality Assessment	15
	Business Model	9 Annual Report, "Our Businesses" section
	Concepts / Policies (incl. Due Diligence Applied)	- Safety and Sustainability Policy - Corporate Environmental Management System (ISO 14001 and ISO 45001 aligned) p. 23 - Code of Conduct - Supplier Code of Conduct - Lonza's Human Rights Principles, p. 22
	Risks Related to Non-Financial Matters	17, 61
Environment	GHG Emissions	31, 34-38
	Water	32-34
	Energy	31-32
	Waste	38-39
Employee-matters	Employee Recruitment, Retention and Development	46-48
	Employee Engagement	46, 48
Social Matters	Health and Safety	42-45
	Diversity and Equal Opportunity	45-46
Respect for Human Rights	Supply Chain Responsibility	25-28
Anti-Corruption	Anti-Bribery and Anti-Corruption	24-25



Risks related to our material topics

> Following the Swiss non-financial reporting requirements, companies need to identify and elaborate on the risks from their own business activities and supply chain related to their material topics. For transparency purposes we list key risks related to our material topics in the table below. The process of identifying the below risks entailed an analysis of the extended and generalized material topics, and what-if scenario projections, e.g. what could be the outcomes if water quality or quantity would change at a Lonza site. <

Material Topic	Risk Description	Scope	Potential Impact	Mitigation
Climate change	Climate related physical risks, transitional risks, chronic risks	<ul style="list-style-type: none"> Value chain Own operations Community Environment 	<ul style="list-style-type: none"> Water availability Heat defense, cooling capacity People availability Resource competition Contribution to increasing GHG-concentration Increased cost from energy taxes or certificates 	<ul style="list-style-type: none"> GHG reduction target and action planning Renewable electricity ambition Climate Scenario modelling Enhanced site BCP, and master plans Investment planning for mitigations
Energy	Insufficient supply, shortages, power grid outages, storm/natural disaster outage, Rationing through government	<ul style="list-style-type: none"> Own operations Community 	<ul style="list-style-type: none"> Downtime of equipment Loss of production Storage impairment, cold storage Lonza competing for energy with community/others Increasing price levels for communities Cost increases for energy 	<ul style="list-style-type: none"> Tier one preferred supply industry Energy reduction target Reserves in some sites (fuel oil) Alternative fuel use and dual combustion engines Fuel / Battery Electrical Power Units on site and contracted Business Continuity Plans
Waste	Untimely removal, cost increases, transportation shortage	<ul style="list-style-type: none"> Own operations Community 	<ul style="list-style-type: none"> Downtime of the storage facility Overload of the transport chain Disposal/treatment by Lonza irregular Remediation needed later 	<ul style="list-style-type: none"> Alternative, mobile storage facility Waste reduction target Own incineration capacity Sufficient contractual capacity
Water	Water supply shortage, cooling capacity restrictions, conflicts on water, failure to comply with permits and industry practices	<ul style="list-style-type: none"> Own operations Community 	<ul style="list-style-type: none"> Lack of water for products Lack of cleaning water Lack of cooling water Loss of production Reputation damage Fines, legal action Lonza competing for water with community/others Depletion of water sources / reservoirs 	<ul style="list-style-type: none"> Tier one preferred supply industry is priority supplied Water target / principles Water mass balances in all sites, understanding uses and limitations Water circulation technology, e.g. membrane filtration and reuse Using all reject / low grade water for lower value purposes Permits for water quantities / use Watershed stakeholder consultation
Occupational Health and Safety	Risk to people, Lonza employees or contractors	<ul style="list-style-type: none"> Own operations, contractors, neighbors 	<ul style="list-style-type: none"> Injuries or health impairment Lost time Equipment or production downtime 	<ul style="list-style-type: none"> Job / technical hazard assessments, e.g., chemical, physical, ergonomic hazards Technical safety installations and improvements Training and education Substance exposure monitoring for chemicals, Toxicology group Safety Culture programs Near miss and observation program Medical assistance facilities
Human resources	Employee recruitment, attraction and retention, human capital, diversity and equal opportunity, employee engagement, team composition, high turnover	<ul style="list-style-type: none"> Own operations 	<ul style="list-style-type: none"> Failure to hire and retain skilled talent Failure to invest / expand and slowing growth Knowledge transfer Increased training needs Skill levels decline Decreased engagement levels Demotivation 	<ul style="list-style-type: none"> Developed hiring and leave process Talent scouting, professional recruitment teams Development of managers Gender equality initiatives and targets IDB teams Team development program Monitoring of leave rates Succession planning
ABAC	Failure to abide by the Code of Conduct, bribery, misbehavior, corruption	<ul style="list-style-type: none"> Own operations Value chain 	<ul style="list-style-type: none"> Legal enforcement action Reputation Individuals impacted 	<ul style="list-style-type: none"> Code of conduct, ABAC policy Internal Audit Robust processes of investigation and penalties Mandatory regular training of all employees Ethics Hotline Compliance declarations
Supply chain responsibility	Suppliers not abiding by the SCoC, environmental incidents, defaulting suppliers, political disruptions, supply chain disruption	<ul style="list-style-type: none"> Value chain Own operations 	<ul style="list-style-type: none"> Reputation damage Supply of materials Single source default Price / cost increases 	<ul style="list-style-type: none"> Supplier engagement Audits and visits Screening public information Second sourcing Responsible Sourcing Program Geographical distribution Business Continuity Plans



Swiss Non-Financial Reporting Requirement (Art. 964j-k CO) Index

We also adhere to the requirements of Art. 964j-k of the Swiss CO. Our disclosure relating to these requirements are mapped in the table below.

Area	Topic	Page
Supply chain due diligence	Management system	25-26
	Risks in the supply chain	26-27
	Material and Metals: Due diligence	28
		We are exempt from the obligations of due diligence and reporting on minerals and metals from conflict-affected areas, since no relevant mineral import above legal thresholds were identified.
	Risk Management	22, 26-28
	Child Labor: due diligence, supply chain policy, supply risk management instruments, supply traceability system	27



Independent limited assurance report on selected quantitative and qualitative Sustainability Information of Lonza Group AG

To the Board of Directors of Lonza Group AG, Basel

We have undertaken a limited assurance engagement on Lonza Group AG's (hereinafter «Lonza») selected Sustainability Information in the Sustainability Report for the financial year from the 1st of January 2023 to the 31st of December 2023 (hereinafter "Sustainability Information") as follows:

- Global Reporting Initiative (GRI) related KPIs which are marked as "Ⓐ" assured by KPMG" in the GRI Index table (pages 53-58)
- Lonza's internally developed KPIs: "Internal promotion rate and internal position fill rate", and "Voice of Employee survey: engagement index and response rate", marked as "Ⓐ" assured by KPMG" in the GRI Index table (page 58)
- Non-financial disclosures prepared in accordance with article 964b of the Swiss Code of Obligation, as included in the index table (page 60) of the Sustainability Report, and the text marked accordingly with the check mark "☑" in Lonza's Sustainability Report 2023.

Our assurance engagement does not extend to information in respect of earlier periods or future looking information included in the Lonza Sustainability Report 2023, information included in the Lonza Annual Report 2023 or linked to from the Lonza Sustainability Report 2023 or from the Lonza Annual Report 2023, including any images, audio files or embedded videos.

Understanding how Lonza has Prepared the Sustainability Information

Lonza prepared the Sustainability Information using the following criteria (hereinafter referred to as the "Sustainability Reporting Criteria"):

- For Global Reporting Initiative (GRI) related KPIs – GRI Standards (pages 53-58)
- For Lonza's internally developed KPIs – criteria as described in GRI index table (page 58)
- For the non-financial disclosures referenced in the index table (page 60) of the Sustainability Report – article 964b of the Swiss Code of Obligation



Consequently, the Sustainability Information needs to be read and understood together with these standards and criteria.

Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the ‘*Summary of the work we performed as the basis for our assurance conclusion*’ and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Sustainability Information in Lonza’s Sustainability Report 2023 for the financial year from the 1st of January 2023 to the 31st of December 2023 is not prepared, in all material respects, in accordance with the Sustainability Reporting Criteria.

We do not express an assurance conclusion on information in respect of earlier periods or future looking information included in the Lonza Sustainability Report 2023, information included in the Lonza Annual Report 2023 or linked to from the Lonza Sustainability Report 2023 or from the Lonza Annual Report 2023, including any images, audio files or embedded videos. Our conclusion does not extend to the requirements of Swiss Code of Obligation article 964 (d-I).

Inherent Limitations in Preparing the Sustainability Information

Due to the inherent limitations of any internal control structure, it is possible that errors or irregularities may occur in disclosures of the Sustainability Information and not be detected. Our engagement is not designed to detect all internal control weaknesses in the preparation of the Sustainability Information because the engagement was not performed on a continuous basis throughout the period and the audit procedures performed were on a test basis.

Lonza’s Responsibilities

The Board of Directors of Lonza is responsible for:

- Selecting or establishing suitable criteria for preparing the Sustainability Information, taking into account applicable law and regulations related to reporting the Sustainability Information;
- The preparation of the Sustainability Information in accordance with the Sustainability Reporting Criteria;
- Designing, implementing and maintaining internal control over information relevant to the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error.

Our Responsibilities

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and



- Reporting our independent conclusion to the Board of Directors of Lonza.

As we are engaged to form an independent conclusion on the Sustainability Information as prepared by the Board of Directors, we are not permitted to be involved in the preparation of the Sustainability Information as doing so may compromise our independence.

Professional Standards Applied

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board (IAASB).

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the *International Code of Ethics for Professional Accountants (including International Independence Standards)* issued by the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our work was carried out by an independent and multidisciplinary team including assurance practitioners and sustainability experts. We remain solely responsible for our assurance conclusion.

Summary of the Work we Performed as the Basis for our Assurance Conclusion

Based on risk and materiality considerations we have undertaken procedures to obtain sufficient evidence. The procedures selected depend on the practitioner’s judgment. This includes the assessment of the risks of material misstatements in the above-mentioned Sustainability Report. Our limited assurance procedures included, amongst others, the following work:

- Assessment of the design and implementation of systems, processes and internal controls for determining, processing and monitoring sustainability performance data, including the consolidation of data;
- Inquiries of employees responsible for the determination and consolidation as well as the implementation of internal control procedures regarding the selected disclosures;
- Inspection of selected internal and external documents to determine whether quantitative and qualitative information is supported by sufficient evidence and presented in an accurate and balanced manner;
- Assessment of the data collection, validation and reporting processes as well as the reliability of the reported data on a test basis and through testing of selected calculations;



- Analytical assessment of the data and trends of the quantitative disclosures included in the scope of the limited assurance engagement;
- Assessment of the consistency of the disclosures applicable to Lonza with the other disclosures and key figures and of the overall presentation of the disclosures through critical reading of Lonza's Sustainability Report 2023.
- Check that the Sustainability Report contains the information required by the Swiss Code of Obligations article 964b (1) and (2) to understand the business performance, the business results, the state of the undertaking, and the effects of its activity on material topics of environmental matters, social matters, employee-related matters, respect for human rights, and combating bribery and corruption.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

KPMG AG

Cyrill Kaufmann
Licensed Audit Expert

Diana Guerra
Manager

Zurich, 2 April 2024

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