

Enabling a Healthier World

Lonza

Annual Report 2021

Dalian Xinghai bay bridge, Liaoning, China

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Letter from the Chairman



Albert M. Baehny

Chairman of the Board of Directors

Dear Stakeholders

For Lonza, 2021 was a year characterized by transformation and growth. We have divested our former Specialty Ingredients business and refocused our energy and attention as a dedicated healthcare partner. As part of our transformation program, the Board has worked assiduously to set the company strategy and laid the foundation for future success with significant growth investments. It has also driven progress in corporate responsibility while ensuring we maintain a rigorous and robust approach to company governance.

Business Transformation

Completing the divestment of our former Specialty Ingredients business has provided an opportunity for us to consolidate our focus and identity. The divestment to the Bain Capital and Cinven consortium was completed on 1 July 2021, for an enterprise value of CHF 4.2 billion. I would like to thank the members of the Lonza divestment team for their tireless work in completing this complex divestment in an expedited timeframe. I would also like to wish our former colleagues every success for their future in the new company, recently named Arxada.

With the divestment completed, we are able to refine our focus on the healthcare industry. As part of this consolidation, we undertook a structural redesign in 2020, enabling Lonza to operate as four clear divisions since the beginning of 2021. Our divisions include: Biologics, Small Molecules, Cell & Gene, and Capsules & Health Ingredients.

Long-Term Growth

With the generated cash flow from operations as well as the proceeds from the divestment, we announced a series of strategic growth investments including a CHF 200 million investment in a new Small Molecules facility in Visp (CH) and an investment of CHF 850 million to expand mammalian capacity in Biologics. We also made investments in our Cell & Gene and Capsules businesses. These will ensure that we can continue to expand our capacity and offerings in these critical areas of our business.

When considering new growth investments, the Board works closely with management to identify opportunities that will generate attractive return on capital in areas of high market growth and sustained customer demand. This combination of factors will ensure that improved margins can be delivered by the Group in the long term.

We are committed to ensuring that Lonza Group is able to capture market opportunities and drive competitive advantage. By maintaining our ambitious approach to new growth investments, we will ensure that we are able to anticipate customer needs and capture future demand. Given our current focus on growth investments, we are proposing an unchanged dividend for shareholders of CHF 3.00 per share, in line with last year.

Corporate Responsibility

As a global healthcare partner, it is critical that our business demonstrates a world class approach to corporate responsibility. We have worked diligently in 2021 to ensure that responsibility is integrated and embedded across our global network. Commencing in 2022, environmental, social and governance (ESG) metrics will be incorporated into our compensation policy for both management and employees. This is a significant commitment that is designed to ensure that our whole employee community understands the importance of responsible business and works actively to support our ambitious ESG agenda.

We have also worked to create a clear, comprehensive and systematic framework around our ESG activities. Using the UN Sustainable Development Goals, we have defined seven key ESG priorities. These include: good health and well-being; quality education; gender equality; clean water and sanitation; industry, innovation and infrastructure; responsible consumption and production; and climate action. Each of these goals provides a long-term objective that resonates with our own vision for sustainability, based on the role we fulfil for our customers and the industry in which we operate.

While ensuring that we maintain good corporate citizenship, we also remain aware of our responsibility to support a robust and representative approach to governance within the business. There is a high proportion of female representation on the Board and we are committed to ensuring that this continues in the future.

More on our 2021 sustainability activities can be found in our [Sustainability Report](#), which forms a companion document to this 2021 Annual Report.

The World in 2022

Looking to 2022, we continue to observe the pandemic with humility and do not speculate on future events. As a Board, our role is to set the company strategy, while ensuring we remain resilient to challenges and ready to capture opportunities. Within this framework we have built a strong foundation, enabling the company to pursue its role as a dedicated partner to the healthcare industry. As such, we are strongly placed to deliver on our purpose to enable a healthier world, and pursue our vision to bring any therapy to life.

I would like to close by recognizing our management and employee community for their work over the course of 2021. Our business relies on the talent and dedication of its people, and our success is a testament to their tireless efforts. On behalf of the Board of Directors, I thank you for your work in 2021, and I look forward to working with you all in 2022.

Albert M. Baehny

Chairman of the Board of Directors

Letter from the CEO



Pierre-Alain Ruffieux
Chief Executive Officer

Dear Stakeholders

A warm welcome to the Lonza Group 2021 Annual Report. During the past year we remained agile and responsive to capture opportunities in a business landscape that has continued to evolve with the COVID-19 pandemic. Post-divestment, we have worked with focus and determination to reposition our business as a dedicated partner to the healthcare industry across our four divisions: Biologics, Small Molecules, Cell & Gene and Capsules & Health Ingredients. We have also continued to drive our accelerated growth agenda in a dynamic operating context. Looking at our business across the year, it is fair to say that 2021 was characterized by a combination of strong performance and resilience.

Financial Performance

We are pleased to present another successful year. Lonza has reported sales of CHF 5.4 billion, growing 20% AER (20% CER) and CHF 1.7 billion CORE EBITDA, resulting in a margin of 30.8%. This strong momentum at Group level was driven by sales growth ahead of market across all divisions.

As we continued to navigate the uncertainties arising from the COVID-19 pandemic, we actively worked to maintain a dialogue with our investor community. Our shareholders received business and financial updates at Half-Year and Full-Year, as well as being invited to our Capital Markets Day, which took place in Zurich (CH) in October. This was a chance for us to present our strategic priorities at a Group and divisional level. It was also an opportunity for us to introduce Philippe Deecke, our new Chief Financial Officer, who joined us in December 2021. Alongside these formal gatherings, we have also organized multiple briefing sessions and meetings with investors over the course of the year.

Creating a Path to Long-Term Success

We have continued to focus on our long-term success by progressing with our growth investment strategy. For the Full-Year 2021, our total capital expenditure (CAPEX) reached CHF 1.3 billion or 24% of sales, and it is expected to increase to around 30% in 2022. We have made strategic investments in areas of sustained customer demand, which allow us to consolidate our global reach and deliver end-to-end solutions across modalities. During the year, we confirmed an investment of CHF 200 million to construct a new manufacturing facility in Visp (CH), to accommodate future Small Molecules expansions. We also committed a further CHF 850 million to build two new large-scale mammalian facilities in Visp and Portsmouth (US) over the next two years. Our sustained approach to organic investment will ensure we are able to deliver for our customers and capitalize on long-term market growth.

Our organic growth investments are supported by a considered and selective approach to bolt-on acquisitions. In November 2021, we added an exosomes manufacturing facility in Lexington (US) from Codiak Biosciences, and the Exosomics Service Unit in Siena (IT) to our network. These sites extended our Cell & Gene Technologies business with offerings in exosome assay and process development, analytics and manufacturing services. Inevitably, these selected highlights only provide a snapshot of expansion activities, and many other plans are in development or on the horizon.

Across our operations, we are now working to deliver a Lean approach to business. We are already focused on driving continuous improvement by eliminating waste and maintaining our high levels of quality. This will help us to ensure that we can deliver with speed and efficiency for our customers while improving our own business performance. We will increase our focus on Lean operations in 2022, while continuing to engage and educate our leadership and the entire organization around Lean principles.

Managing Through the Pandemic

Our operating environment remained uncertain and changeable as the pandemic continued to evolve through 2021. Many of our markets experienced “hard lockdowns” through the first half. During this time, our office workers maintained their home working routines, while our laboratory and manufacturing employees continued to attend our facilities to fulfil our role as a supplier of essential goods and services. Through the commitment and relentless efforts of our teams around the world, along with some increase in inventories, we managed the global supply disruptions with minor impact for our customers and our growth projects.

While we anticipate that delivery and distribution issues will continue in 2022, we expect to continue to manage the impact, as long as conditions remain comparable with the last two years.

Our Contribution to Controlling COVID-19

Alongside our focus on maintaining business continuity, we have also continued to make active contributions to controlling the pandemic. In 2020, we entered into an agreement with Moderna to install three mRNA production lines at our Visp (CH) site and one production line in Portsmouth (US) to manufacture the drug

substance for Moderna's Spikevax COVID-19 vaccine. Based on the success of this collaboration, we entered into a new agreement with Moderna in May 2021 to add three further production lines at our Visp site. In June 2021, we further extended our collaboration once more, with an agreement to build an additional line at our site in Geleen (NL) to fulfil a crucial step in the drug substance manufacturing process. Again, we were able to leverage our existing infrastructure and assets to deliver an accelerated build-out and ramp-up of operations. Our rapid response in the manufacture of the Moderna vaccine drug substance has supported in controlling the spread of the pandemic.

Alongside our continuing collaboration with Moderna, we continue to work with other customers on COVID-related projects, including AstraZeneca, Capricor and Humanigen.

Attracting and Retaining Leading Talent

Our people are the beating heart of our business, and their contributions have been even more critical as we have managed through the pandemic and continued to operationalize new facilities. To support our accelerated growth over the last year, we have hired more than 4,500¹ people. While working to ensure that we can provide competitive offers to these new candidates, we also understand that retaining existing talent is a crucial component of our business success. Like many companies in the last year, we have seen an increase in turnover, and we are working to address this by ensuring our people are engaged with meaningful work and opportunities in a highly competitive employment market.

For current colleagues, we have reviewed and updated our approach to reward and recognition over the course of the last year. In our updated bonus structure, we have placed greater emphasis on rewarding individual performance. We have also placed a focus on sustainability by aligning the bonus evaluation of company performance with our environmental, social and governance (ESG) commitments. The new bonus system will be launched in 2022, alongside a new share purchase scheme for colleagues in selected test markets. This will enable our people to purchase shares at a discounted rate, and benefit from a share match plan after three years, so that they can truly share in the company's success.

Building on our launch of the Employee Assistance Program (EAP) in 2020, we have continued to deliver a more active approach to supporting our colleagues in a wide range of areas. In 2021, we delivered a global information series on wellbeing and hosted employee sessions on a broad range of topics including parenting through the pandemic, mental health and empowering women in leadership. We have already commenced work on a wellbeing app for colleagues, and this is due to be tested and released in 2022.

Our Commitment to Sustainability

During 2021, we also focused on driving further progress with our ambitious sustainability agenda. Our CO₂ emissions were reduced by 35% with the divestment of our former Specialty Ingredients business. As we embark on a new era of business, we have also

taken the opportunity to address legacy issues arising from our past activities. In 2021, we installed a catalyzer to manage nitrous oxide emissions at our niacin facility in Visp (CH) before divesting the facility with the Specialty Ingredients segment. The catalyzer helped to further reduce the N₂O footprint of Switzerland. In the same locality, we completed remediation works on the most affected residential plots containing mercury, and we will commence work on agricultural land parcels in 2022. Finally in 2021, we continued working with the cantonal authorities to find an agreement on a lasting solution to the groundwater pollution issues caused by the legacy Gamsenried (CH) landfill. We have made a provision of CHF 285 million, which we expect to cover the majority of total remediation costs. The first phase of work will take around ten years to complete and will commence in 2023 or 2024.

We recognize sustainability is a critical component of our long-term strategy and forms an ethical imperative for our business. In this context, we were pleased to have been recognized as one of the World's Most Ethical Companies 2021 by the Ethisphere® Institute. This recognition is based on a comprehensive review of our company's governance, leadership and reputation, environmental and societal impact, ethics and compliance program and overall commitment to a culture of ethics.

A full overview of our sustainability activities in 2021 are detailed in our designated [Sustainability Report](#), which forms a companion document to this 2021 Annual Report.

Group Outlook 2022

We have remained resilient to the challenges of the pandemic in 2021. As long as the conditions remain comparable with the last two years, we expect to be able to manage the impact. In this context, our 2022 Outlook anticipates low to mid-teens CER sales growth, driven by sustained strong momentum across our businesses. We expect this to translate into an improved CORE EBITDA margin on the path to reach the Mid-Term Guidance. We also reconfirm our Mid-Term Guidance of low teens CER sales growth until 2024, and we guide for a CORE EBITDA margin of around 33% to 35%.

Thanks to our Stakeholders

I would like to extend my thanks to all our colleagues, customers, shareholders and business partners. More than ever in 2021, our business success has been a collaborative and collective endeavor in which we have all participated.

Looking towards 2022, it will be the first full year in which Lonza will act as a dedicated partner to the healthcare industry. With this new clarity and focus, I am eager and excited to work with you all on driving progress towards our purpose of enabling a healthier world.

Pierre-Alain Ruffieux
Chief Executive Officer

¹ More than 4,500 is the total number of new joiners in 2021 (headcount, excluding contingent workers). The net increase of FTE totaled more than 2,000

2021 Highlights

April

We announced CHF 200 million investment in a new small molecule manufacturing complex in Visp (CH).

January

We started 2021 by announcing strong [Full-Year 2020](#) results.



May

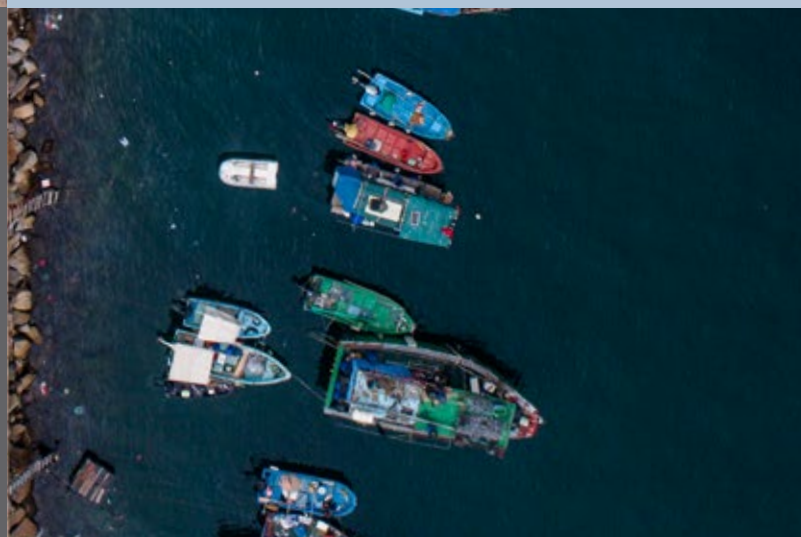
We announced a CHF 850 million [investment](#) to build two new state-of-the-art mammalian facilities in Visp (CH) and Portsmouth (US).

We expanded our [collaboration](#) with Moderna to double the drug substance production for its Spikevax COVID-19 vaccine in Visp (CH).

Hong Kong, Boats moored behind a pier

February

We were recognized by Ethisphere® as one of the [world's most ethical companies](#) in 2021.



June

We announced further [collaboration](#) with Moderna for the installation of a new drug substance production line at our site in Geleen (NL).

We announced new [investments](#) in GMP laboratories and mid-scale manufacturing assets at our API manufacturing center in Nansha (CN).

September

We [invested](#) to expand drug product development and manufacturing services in Switzerland.

July

We completed the [divestment](#) of our Specialty Ingredients business.

We reported continued strong momentum in [H1 2021](#), with 14.7% CER sales growth and 33.3% CORE EBITDA margin

We extended our [collaboration](#) with a major biopharmaceutical partner for large-scale monoclonal antibody commercial supply.

October

We announced an [expansion](#) of mammalian development services in Singapore.

At our [Capital Markets Day 2021](#), we outlined strategic priorities and innovation highlights with a clear focus on sustainable value creation.

November

We expanded our exosomes manufacturing offering by adding two sites to our network: Codiak Bioscience's [exosome manufacturing site](#) in Lexington (US); and Exosomics' [Service Unit](#) located in Siena (IT).

We [invested](#) to [expand](#) microbial development laboratories at our Visp (CH) site by 50%.

August

We announced an [investment](#) to establish drug product manufacturing capabilities at our site in Guangzhou (CN).

December

We welcomed our new Chief Financial Officer - Philippe Deecke.

Lonza at a Glance

1,665m

CORE EBITDA in CHF

5,409m

Sales in CHF

30.8

CORE EBITDA margin in %

20.0

Sales growth in %¹

10.7

ROIC in %

16,218

Employees (Full-time equivalent)

Creating Value in 2021

>100

Nationalities

125

Years of history

37

Global development and manufacturing sites

2,597

Trademark filings

275

Brands

>1,025

Small² and large³ molecules

357

Active patent families

¹ Constant exchange rate (CER); in actual exchange rate (AER) +20.0%

² Including active pharmaceutical ingredients (API), highly potent API (HPAPI), dosage form and delivery systems and particle engineering

³ Including mammalian, microbial, bioconjugates and cell and gene therapy products (early development services, drug product services and personalized medicines are included for pre-clinical and clinical molecules only)

Financial Highlights

We are looking back at another successful year with CHF 5.4 billion sales (20% AER; 20% CER¹ sales growth) and CHF 1.7 billion CORE EBITDA, resulting in a margin of 30.8%. This strong momentum at Group level was driven by sales growth ahead of market across all divisions. The margin improvement was achieved through productivity improvements, which were partially offset by the dilutive effect of ramping up growth projects and a negative divisional mix. Looking more closely at our divisions, we saw a strong performance, with margin improvement across most divisions.

Through 2021, we continued to execute our ongoing organic growth projects, as well as confirming new investments. For the Full Year, the total capital expenditures (CAPEX) reached CHF 1.3 billion or 24% of sales, from which around 80% was deployed for growth projects. This level of investment was supported by strong underlying cash generation, alongside the proceeds from the divestment of our former Specialty Ingredients business. We anticipate that the current levels of CAPEX will continue to increase and will reach around 30% of sales in 2022. Our growth projects carry an attractive financial return profile and larger projects are de-risked by customer commitments, long-term contracts and strong pipeline.

We are pleased to have achieved a strong 29.1% year on year increase of diluted CORE EPS (CHF 12.63 for 2021). ROIC reached 10.7% as net operating profit after tax grew five times faster than invested capital.

Our tax rate was slightly higher in 2021 compared to prior year, but remained below the Mid-Term Guidance range of 16 to 18%. This was driven by a favourable country profit mix and the provision for the old Gamsenried landfill remediation. Moving to the mid-term, we expect our tax rate to converge to the guided range.

We have achieved an operational free cash flow before acquisitions of CHF 0.4 billion in 2021. Reported EBITDA was impacted by the provision of CHF 285 million for the environmental remediation of Gamsenried landfill, with no impact on CORE EBITDA and cash flow. We ended 2021 with a cash position including short-term investments of CHF 3.4 billion and a negative net debt leverage ratio of 0.5 times CORE EBITDA. For the mid-term, we expect an increase of leverage to our pre-divestment level, as a result of future planned organic investments and bolt-on acquisitions. We remain fully committed to maintain our current BBB+ investment rating.

¹ Constant exchange rate

Outlook 2022 and Mid-Term Guidance 2024

We provide the following Outlook for Full-Year 2022:

- Low to mid-teens CER¹ sales growth
- CORE EBITDA margin improvement on the path to reach Mid-Term Guidance

Outlook assumes no further deterioration of supply chain due to COVID-19 pandemic.

We reconfirm our Mid-Term Guidance 2024:

- Low teens CER¹ sales growth
- CORE EBITDA margin of around 33%–35%
- Double-digit ROIC

Personal Perspective

Philippe Deecke

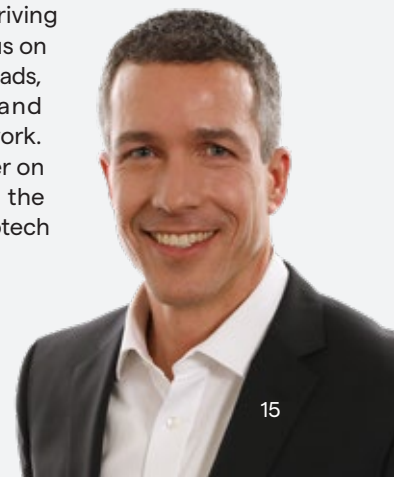
Chief Financial Officer

Having been appointed as the incoming CFO in August 2021, I finally joined Lonza Group in December. It is a pleasure and privilege to come into the company at this time of accelerated growth momentum and focus on operational excellence to secure long-term value creation.

Completing the divestment of our former Specialty Ingredients business in 2021 consolidated our focus as a strategic partner to the healthcare industry. The proceeds give us the opportunity to invest strongly in our businesses to capture market growth opportunities. We have already made landmark CAPEX commitments to accelerate organic growth across all our businesses, alongside bolt-on acquisitions that will add strategic value to our customer value proposition. Completing the divestment also changed our net debt position into a net cash position for 2021. With the use of the proceeds for attractive growth investments, we expect to return to a debt position in the coming years, while comfortably maintaining our S&P investment grade rating at our current level of BBB+.

Inside the function, our people have continued to show incredible flexibility and resilience through the pandemic, as well as helping to deliver the divestment of our former Specialty Ingredients business. In the IT function, we have worked to ensure that our global employee community can connect virtually with our customers, colleagues and investors. We have also redoubled our efforts to maintain strong levels of cybersecurity to protect our information, including the information that is entrusted to us by our customers and partners.

Looking ahead, we will continue to capture growth opportunities by leveraging our strong market and financial position. Alongside driving sales growth, we will renew our focus on productivity in operations and overheads, while maintaining our focused and disciplined capital allocation framework. With that, we are confident to deliver on our Mid-Term Guidance and remain the partner of choice to the pharma, biotech and nutrition industries.



Historical Progression

Sales

Million CHF



ROIC

in %

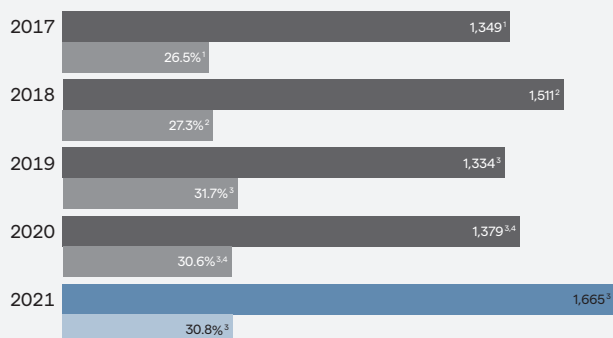


CORE EBITDA

Million CHF

CORE EBITDA Margin

In %

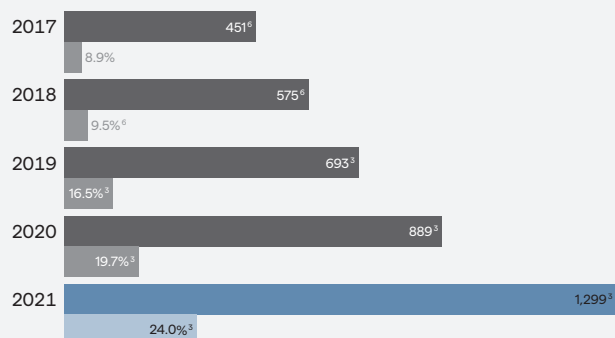


Capital Expenditures (CAPEX)

Million CHF

CAPEX/Sales

In %



CORE EPS diluted

CHF



Net Debt/CORE EBITDA⁵

Ratio



¹ Reported pro-forma 2017 financial results (restated for IFRS 15) include Capsugel Full-Year 2017 financial result

² Lonza continuing operations, excluding the Water Care business classified as discontinued operations

³ Lonza continuing operations, excluding the Specialty Ingredients business classified as discontinued operations

⁴ CORE results for the Full-Year 2020 were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

⁵ "Net debt / CORE EBITDA" reflect total group including discontinued operations. In 2021, the net debt / Core EBITDA ratio calculated on continuing operations only would result in a ratio of (0.58)

⁶ Lonza including Water Care business





Investor Information

Shares of Lonza Group Ltd are listed on the SIX Swiss Exchange and Swiss Market Index (SMI). We also maintain a secondary listing on the SGX Singapore Exchange. The nominal value of the Lonza Group Ltd share is CHF 1. Our share price closed at the end of 2021 at CHF 761.6 per share, which represents an increase of 34.3% in 2021.

The free float in Lonza Group Ltd registered shares reached 99.6% at year-end, and the average daily trade volume was 172,068 shares in 2021.

Listing and Security Information

Stock Exchange Listing / Trading:

SIX Swiss Exchange
SGX Singapore Exchange

Common Stock Symbols:

Bloomberg LONN SW
Reuters LONN.S
Six Swiss Exchange LONN
SGX Singapore Exchange O6Z

Security Number:

Valor 001384101
ISIN CH0013841017

Shareholdings

According to disclosure notifications filed with Lonza, the following shareholders held more than 3% of Lonza's share capital as of 31 December 2021:

Principal Shareholders:

BlackRock, Inc., New York, NY (USA) 9.00%

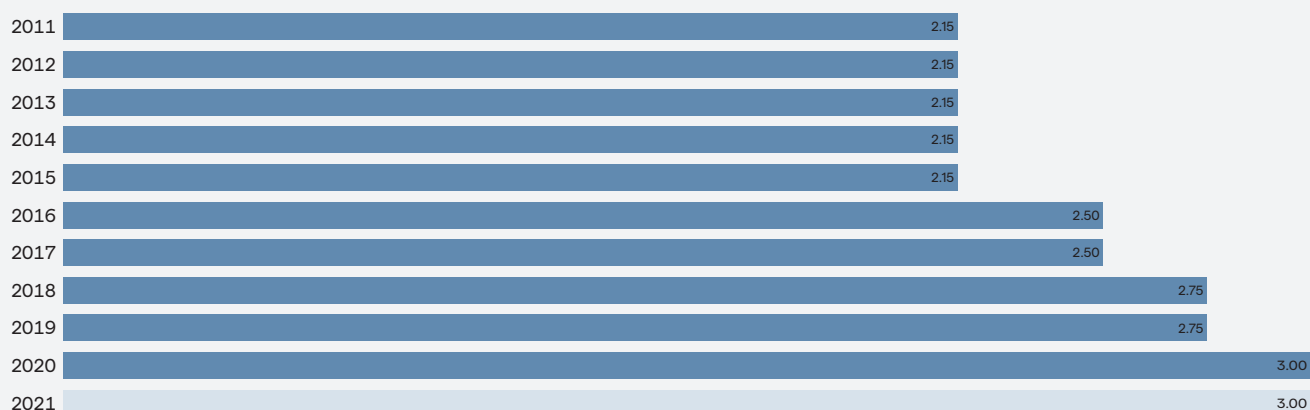
We know of no other shareholder(s) that owned more than 3% of our share capital as of 31 December 2021. To the best of our knowledge, the shareholder mentioned above is not linked by any shareholders' agreement or similar arrangement with respect to their shareholdings in Lonza or the exercise of shareholders' rights. For a full review of the individual disclosure notifications made during 2021, please refer to the [SIX Swiss Exchange disclosure platform](#).

Dividend

Lonza's Board of Directors is proposing an unchanged dividend for shareholders of CHF 3.00 per share for 2021. The proposal represents a pay-out of 7.5%¹ of 2021 reported net profit of Lonza Group. Subject to approval at the upcoming Annual General Meeting (AGM) on 5 May 2022, 50% of the dividend of CHF 3.00 per share will be paid out of the capital contribution reserve and will therefore be free from Swiss withholding tax.

Dividend Payment History

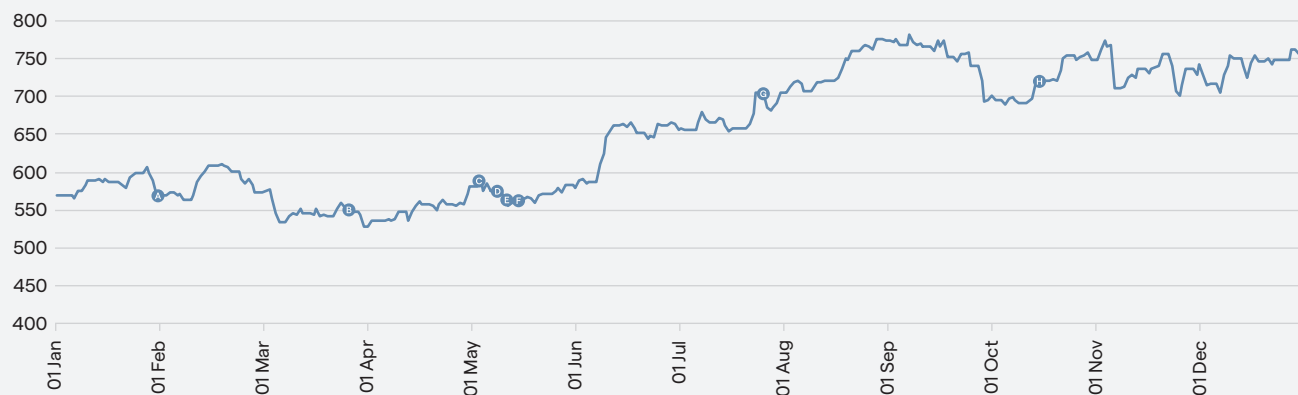
In CHF/Share



¹ Pay-out ratio of 7.5% based on the profit for the period of Lonza Group consolidated (incl. discontinued operations). The pay-out ratio based on the profit for the period of continuing operations would amount to 32.9%

Lonza Share Price Development 2021

In CHF/Share



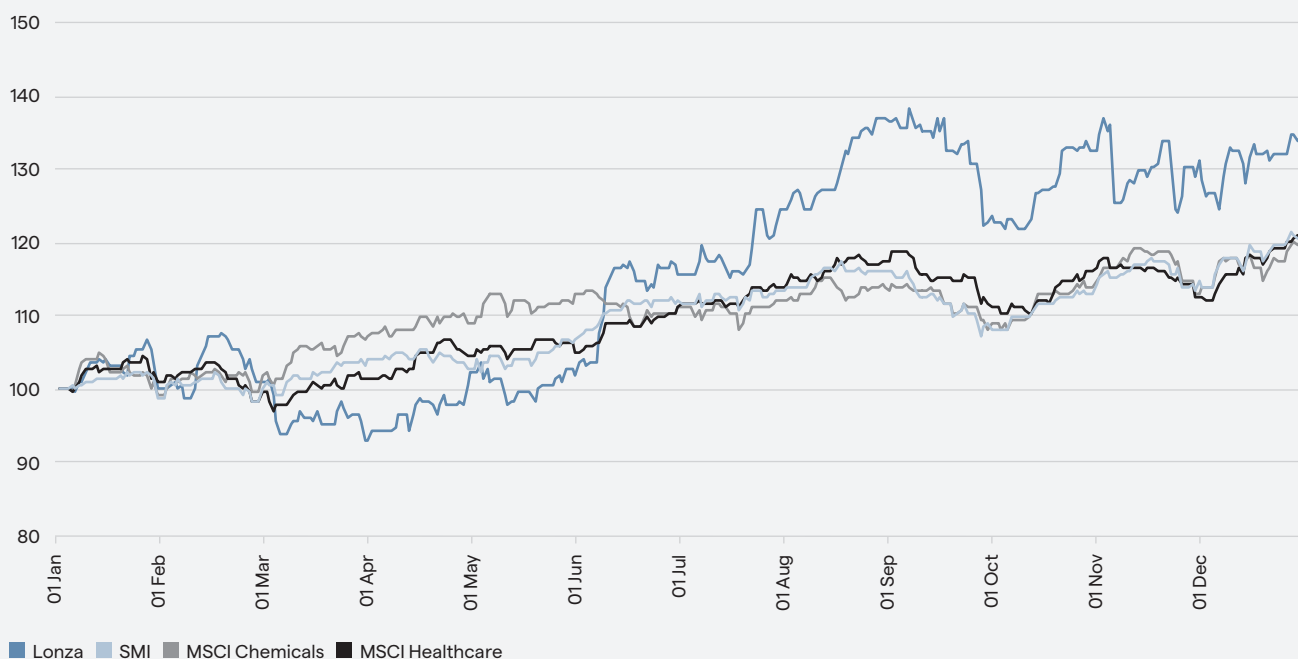
A	Full-Year Results 2020	27.01.2021
B	Annual Report 2020	25.03.2021
C	Annual General Meeting	06.05.2021
D	Ex-Dividend Date	10.05.2021
E	Record-Dividend Date	11.05.2021
F	Dividend-Payment Date	12.05.2021
G	Half-Year Results 2021	23.07.2021
H	Capital Markets Day	12.10.2021

Share Price High	CHF 784.6 on 06.09.2021
Share Price Low	CHF 527.0 on 31.03.2021
Share Price Closing	CHF 761.6 on 30.12.2021

Source: Bloomberg

Lonza Share Price Development vs. Swiss Market Index (SMI), MSCI Chemicals Index and MSCI Healthcare Index

Rebased to 100



Source: Bloomberg

Upcoming Financial Events

Date	Time	Event
21 April 2022	05:00PM CEST	Closing of the Share Register
5 May 2022		Annual General Meeting for the Financial Year 2021
9 May 2022		Ex-Dividend Date
10 May 2022		Record-Dividend Date
11 May 2022		Dividend-Payment Date
22 July 2022		Half-Year Results 2022
25 January 2023		Full-Year Results 2022

More information for our shareholders and capital market is available on Lonza's Investor Relations [webpage](#). To learn more about Lonza's activities during 2021, refer to our [News Archive](#).

Ten-Year Overview of Major Key Indicators

million CHF	2012	2013	2014	2015	2016	2017	2018 ¹	2019 ²	2020 ^{2,3}	2021 ²
Sales	3,925	3,584	3,640	3,803	4,132	4,548	5,542	4,207	4,508	5,409
CORE EBITDA	663	711	743	793	918	1,196	1,511	1,334	1,379	1,665
Margin in %	16.9	19.8	20.4	20.9	22.2	26.5	27.3	31.7	30.6	30.8
EBITDA	645	647	737	780	848	1,084	1,429	1,264	1,378	1,365
Margin in %	16.4	18.1	20.2	20.5	20.5	23.8	25.8	30.0	30.6	25.2
Result from operating activities (EBIT)	340	253	423	428	486	673	842	825	901	851
Margin in %	8.7	7.1	11.6	11.3	11.8	14.8	15.2	19.6	20.0	15.7
ROIC in % ⁴	n.a.	n.a.	n.a.	n.a.	n.a.	8.4	8.0	9.2	9.1	10.7
CORE EPS (diluted) in CHF	4.54	4.97	6.76	6.76	8.38	10.78	11.98	11.40	9.78	12.63
EPS (diluted) in CHF	3.35	1.67	4.54	5.26	5.69	9.70	8.77	8.68	9.77	9.05
Operational free cash flow (bef. acquisitions)	510	519	476	693	638	658	884	371	504	399
Net debt / (net cash) ⁵	2,301	2,103	2,011	1,660	1,584	3,762	3,534	2,961	2,813	(958)
Net debt / CORE EBITDA ⁵	3.47	2.96	2.70	2.09	1.73	2.70	2.28	1.83	1.66	(0.53)
Number of employees (Full-Time Equivalent) ⁶	10,789	9,935	9,809	9,829	10,130	14,618	15,375	15,468	14,062	16,218

¹ Lonza continuing operations, excluding the Water Care business classified as discontinued operations

² Lonza continuing operations, excluding the Specialty Ingredients business classified as discontinued operations (see [note 5.1](#))

³ CORE results for the Full-Year 2020 (CORE EBITDA, ROIC, CORE EPS) were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

⁴ Refer to section "Alternative Performance Measures" of the Financial Report for more details on the calculation methodology

⁵ "Net debt", "Net debt / CORE EBITDA" reflect total group including discontinued operations. In 2021, the net debt / CORE EBITDA ratio calculated on continuing operations only would result in a ratio of (0.58)

⁶ "Number of employees (Full-time Equivalent)" reflect total group (including discontinued operations) from 2012 to 2019 and continuing operations (excluding Lonza Specialty Ingredients business) from 2020 onwards

Our Strategic Priorities

Following the divestment of our former Speciality Ingredients business, Lonza is now a dedicated partner to the healthcare industry, with a clear purpose of enabling a healthier world. Across our four divisions (Biologics, Small Molecules, Cell & Gene, and Capsule & Health Ingredients), we offer a unique breadth of services that deliver on our Group vision to bring any therapy to life. Underpinning this purpose and vision, we have developed five strategic priorities, each of which is explored in this section.

Alongside this clarity on our strategic priorities, we have also remained responsive to the evolutions in our operating environment. We have continued to anticipate the challenges arising from the COVID-19 pandemic, while monitoring the competitive landscape and the markets in which our divisions operate. We will work to maintain this dual focus of delivering against our strategic framework while remaining agile to our industry context. This will ensure we remain strongly positioned to deliver in the long-term for both our customer and investor communities.

Service

Having consolidated our focus on the healthcare industry, we are already working to create a culture of continuous improvement by supporting our global site network to design and execute a Lean approach to operations. Through the elimination of waste and a focus on improved efficiency, we will be able to improve our service to our customers while delivering benefits back to the business. In 2021, we have laid the groundwork for our future focus on operational excellence by briefing our leadership teams on Lean operations, thereby equipping them to explore how Lean may be at a divisional, functional and site level. Extending and embedding this Lean program is a priority for the business in 2022.

Alongside our work on Lean, we have worked to maintain customer service by strengthening our supply chain. We have remained resilient to supply challenges arising from the pandemic in 2021. Looking to 2022, we have already anticipated supply disruptions and we are working to manage and mitigate potential challenges by confirming contracts with key suppliers and increasing inventories of critical supplies.

We have also continued to focus on employee health and safety, to ensure our people remain protected and able to support our customer communities through the pandemic. We have maintained pandemic-related safety measures to ensure that employees can still safely attend our manufacturing plants and laboratories. We have also worked on a global framework to support hybrid working across our community of office workers. We have been impressed by our people's resolve, dedication and energy, as they have remained engaged and flexible in their new working practices through a second year of the pandemic.

Scope

All four of our business divisions operate in growing markets, and we remain confident to make significant and sustained investments in capacity expansion. In the short term, our increased levels of capital expenditure (CAPEX) will ensure that we fully capitalize on opportunities in areas of dynamic market demand and support customers on their growth journey. Our commitment to deliver a broad range of services for our customers is reflected in our recent acquisitions to expand our exosomes offering as well as our joint venture (JV) with Chr. Hansen, which will include a commercial facility for live biotherapeutics.

In our contract development and manufacturing organization (CDMO) business, we are focused on ensuring that we can meet diverse customer needs by investing in large-scale multi-purpose capacity alongside dedicated suites. This ensures we can adapt our offer to match our customer's priorities, for example speed to market, flexibility of supply during clinical phases, scaling a specific process or dedicated access to capacity. Within our divisions, we are also working to ensure that we can offer services across the value chain

Our Strategic Priorities



and the lifecycle of a molecule. For instance, in our Biologics division, we are working in many modalities to deliver end-to-end offerings across late discovery, pre-clinical, clinical and commercial, including drug substance and drug product.

Recent landmark organic investments have included an investment of CHF 200 million to construct a new manufacturing complex in Visp (CH), to accommodate future Small Molecules expansions. We have also committed a further CHF 850 million to build two new mammalian facilities. We work to de-risk organic investments by allowing customers to reserve capacity at any early stage in the investment cycle. This ensures anchor customers have access to the capacity and services they need. Our focus on operational excellence means we can offer value to our customers, while driving efficiencies to deliver attractive returns as soon as new facilities are fully operational. True to our Capital Allocation Framework, our primary focus on organic investments is supported by a selective approach to bolt-on acquisitions that support our strategic growth areas.

Sustainability

Delivering long-term economic, environmental and social value is a strategic priority for our business. We have an ethical responsibility to protect the environment, take care of our people and invest in our local communities.

In 2021, we have focused on addressing legacy issues arising from our industrial heritage while working to complete the divestment of our former Specialty Ingredients business. Simultaneously, we have continued to reduce our energy consumption and carbon footprint, while refocusing on renewable energy resources. Combined together, these activities will have a transformative long-term impact on our environmental footprint.

Alongside these important measures, we have also worked on multiple community investment projects across the locations and markets in which we operate. Site-based charitable and fundraising activities have helped assist local causes ranging from youth education programs to charities that support disadvantaged families. At a Group level, we have also invested in multiple charitable endeavours that support our purpose of enabling a healthier world. Our charitable beneficiaries in 2021 include the American Red Cross, the Swiss Red Cross and Mothers in Science.

Solutions

We understand that our approach to innovation provides a critical point of differentiation for our business and delivers important advantages for our customers. Our work to deliver mRNA drug substance production lines for the Moderna's Spikevax COVID-19 vaccine was supported by our innovative Ibex® Solutions offering, which provides pre-built capacity to expedite the path to commercialization. Building on the success of our work in 2020, we entered new agreements with Moderna in 2021 for three further production lines at our Visp (CH) site and one further line at our site in Geleen (NL).

Looking more widely at our business, we are also working to deliver an integrated drug substance and drug product offering. We are also improving process efficiency by increasing automation to streamline human intervention in manufacturing. This is demonstrated by our Cocoon® Platform, which improves efficiency in autologous cell therapy manufacturing with an automated, closed production platform. Alongside the Cocoon® technology, we are continuing to invest in the expansion of our innovative space of Cell & Gene Technologies. In 2021, we added the Codiak Biosciences Exosomes manufacturing facility in Lexington (US) and the Exosomics Service Unit in Siena (IT) to our network. These sites have allowed us to extend our Cell & Gene Technologies business with new offerings in exosome assay and process development, analytics and manufacturing services.

Finally, we are continuing our work to pursue the exploration of the microbiome, as an innovative target for new therapies. In 2019, we established a strategic joint venture with Chr. Hansen for the development and manufacturing of live biotherapeutic products under the name Bacthera. In 2021, the collaboration reached a milestone as both of Bacthera's facilities (in Denmark and Switzerland), were granted manufacturing and GMP licenses by their respective national health authorities. As a result, the business is now able to supply customers with live biotherapeutic products for clinical trials in humans and ultimately develop commercial products. This is an area of high potential that we will continue to support in 2022.

Speed

In an industry where the path to commercialization continues to accelerate, we understand that speed can be critical to our customers' competitive advantage. In this context, our Ibex® Solutions offering provides pre-built capacity that can deliver drug substance and drug product for clinical trials, and expedite clinical and commercial production. We leveraged our pre-built Ibex® Solutions capacity to expedite the manufacture of the drug substance for Moderna's Spikevax COVID-19 vaccine, progressing from contract negotiations to production in eight months at our site in Visp (CH), and even more rapidly in Portsmouth (US). Our CAPEX investments in 2021 into an additional manufacturing complex 2 will enable us to extend our pre-built capacity offering in future years, so that additional customers gain advantage from accelerated delivery timelines.

Large growth investments may take between three and four years to come online, and additional time is needed to train new colleagues and ramp up operations before a facility can deliver at full capacity. During a facility's ramp-up phase, we balance the need to improve margins by managing our operational expenditure (OPEX), while recognizing that the success of our new facilities depends on the skill, talent and loyalty of our people. In 2021, key investments reached the ramp-up phase, and we took an active approach to recruitment. This ensured we were able to commence employee training and facility ramp-up in accelerated timeframes to meet our customers' need for speed.

Our Approach to Sustainability

We are dedicated to providing products and services to our customers that enable a healthier world while constantly improving our environmental footprint, social engagement and governance.

As part of this commitment, we aim to ensure transparency by reporting in line with the Global Reporting Initiative (GRI) Standards. They represent an industry standard for tracking performance on a range of economic, environmental and social indicators.

The 2021 [Sustainability Report](#) provides insights into our renewed commitments and performance on the most relevant sustainability topics for our stakeholders and us. The report reflects our focus as a dedicated partner to the pharma, biotech and nutrition industries, with the divestment of our former Specialty Ingredients business, which completed on 1 July 2021. This year, we reviewed the materiality assessment to reflect the themes and initiatives arising from our focus on the pharma, biotech and nutrition industries. This section provides a short overview of some of the most important material sustainability topics in our business today.

Our Sustainability Focus

As part of our sustainability reporting process, in 2021 we completed a new materiality assessment with our new focus as a pure-play pharma, biotech and nutrition business. The materiality assessment allowed us to prioritize initiatives and activities that best support sustainable development. A total of ten sustainability topics were identified as the most relevant for us globally, reflecting the impact of our operations, products and services across the value chain. The 2021 [Sustainability Report](#) provides more detail on each topic and outlines our management approach and performance results.

In addition to our material topics, we also recognize the importance of the [UN Sustainable Development Goals \(SDGs\)](#) and the responsibility of our businesses to meet these goals. The 17 goals contain a broad range of sustainable development themes, including improving health and education, reducing inequalities, promoting responsible consumption, combating climate change and protecting natural resources. There is a global ambition to achieve these interconnected goals by 2030 and we want to play our part in this collective endeavor.

We have selected the seven SDGs most critical to our business and our material topics to build a sustainable way of operating. We have analyzed where our business can bring the most value to these SDGs, so we can create robust sustainability initiatives. This supports us in developing a roadmap for the medium and long term while also considering our existing targets and achievements.

To reinforce our commitment, the seven SDGs are directly assigned to the Executive Committee (EC) members, who in turn have nominated a Program Manager to support them in developing relevant initiatives around each goal. A compensation plan and respective targets and metrics are aligned with the seven workstreams. Results are integrated into the company's bonus plan, with the EC members collectively accountable.

Our Guiding Principles

UN Sustainable Development Goals (SDGs)



Our Policy

Compliance and Integrity

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

Our People

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

Our Environment

We strive to continually reduce emissions, energy, water and material intensity.

Vision ZERO

We continually improve our systems and aspire to ZERO incidents, injuries and environmental footprint.

Value for Society

We create value for society by innovating and delivering science-based solutions to enable a healthier world. We engage in the communities where we operate.

Our Focus: Material Topics

Responsibility

- Anti-Bribery/Anti-Corruption
- Supply Chain Responsibility

Environment

- Carbon emissions (Scope 1, 2 and 3)
- Energy
- Water and Effluents
- Waste

Social

- Occupational Health and Safety
- Diversity and Equal Opportunity
- Employee Recruitment, Development and Retention
- Employee Engagement

Safety and Sustainability Targets

We are focused on continuously improving our sustainability performance and environmental footprint. Using the results of 2018 as the baseline, we have defined targets from 2019 to 2030. The targets and baseline have been reassessed with the divestment of the former Specialty Ingredients segment and will be updated as shown below.

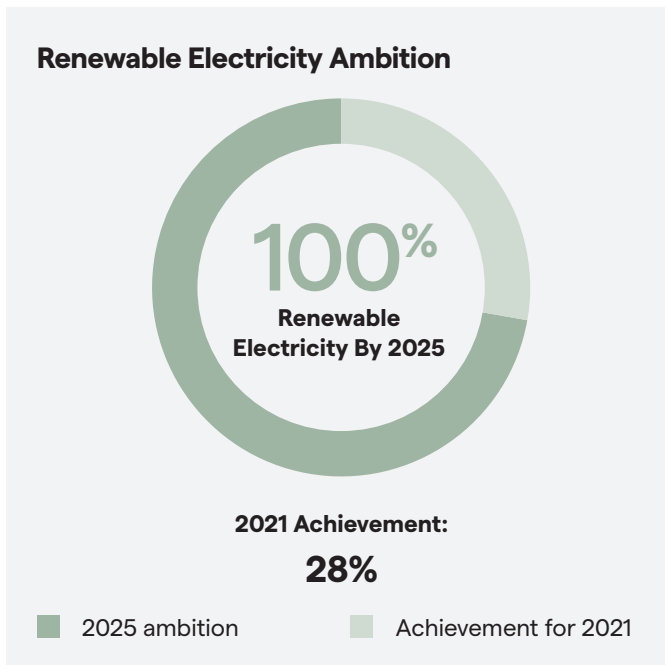
To keep these targets aligned with our continuous growth, we will measure the targets per CHF million in sales. This reflects our diverse and evolving product portfolio, which includes manufacturing pharmaceutical ingredients, pharmaceutical capsules, food supplements, gene therapy and cell media production and the licensing of technologies and systems. Such diversity can be integrated with a denominator of financial value. Using intensity targets also allows us to carry forward this metric in the case of major acquisitions or divestments.



New Ambitions

In addition to the existing initiatives, we have set an ambition to source the electricity we purchase globally from renewable sources by 2025. We also increased the 2030 energy efficiency target to 36%, meaning a reduction of 3%, per million of sales per year.

Our safety targets are aligned with our Vision Zero initiative, which aspires to zero workplace injuries or illnesses, zero manufacturing process incidents, zero environmental incidents and zero transportation incidents involving our products or services. Since 2019, our safety targets have been set locally in our operating sites and linked to metrics based on the identification and completion of safety-related corrective actions. This has moved us from a lagging metric based on injuries (which can vary widely year on year), to a leading metric that drives employee behavior and involvement.



In addition, operating sites have set local targets for material topics for their locations (such as emissions, water quantity and other parameters). Sites have established and implemented three-year roadmaps, which include their action plans around global and local targets.

A Systematic Approach to Safety and Sustainability

Safety and sustainability follow a systematic approach. We have policies in place, including Vision Zero, for the reduction of accidents, incidents and emissions. Across all our sites, we collect data for accidents and incidents, energy, water and waste and analyze deviations from established goals. Our Environment, Health and Safety (EHS) team regularly visits and audits our sites to identify compliance risks and procedures that do not meet our standards.

We also review the impact of site or workplace risks on our business performance and identify ways to mitigate these risks. In this context, we see safety and sustainability as opportunities that allow us to support our value creation for society, our customers and our employees while reducing our environmental footprint. During the COVID-19 pandemic, we implemented additional guidance and procedures to keep our employees safe and ensure continuity of operations.

At the end of the reporting year, approximately 170 people worked in EHS-related roles across Lonza. EHS operating costs amounted to CHF 59.1 million in 2021. Capital expenditure on EHS totaled CHF 35.5 million in 2021.

Our Progress in 2021

Note: data for 2018-2021 were rebased throughout this report to exclude data from the former Specialty Ingredients business sites. For the Visp (CH) site, which manages operations for both Lonza and Specialty Ingredients, data for Continuing Operations was extrapolated using allocation keys based on the usage intensity.



Our Approach to the COVID-19 Pandemic

COVID-19: Managing the Ongoing Pandemic

Throughout 2021, we maintained an active role in controlling the impact of the COVID-19 pandemic. We remained focused on maintaining business continuity and protecting our employee community, while working on several COVID-19 projects with our customers.

Global COVID-19 Taskforce

As the pandemic continued to impact our business and the communities in which we operate, Lonza's Global COVID-19 Taskforce and the associated working groups remained integral to our pandemic response. Comprising of representatives from a wide range of functions across the business, the Global Taskforce and working groups focused on addressing our most pressing challenges.

A priority of the Global Taskforce was to ensure that our employee community continued to be alert to the ongoing threat of the pandemic. We encouraged our employee community to be vaccinated to protect both the health of individual employees and broader society. The Global Taskforce endeavored to balance the need for a global approach with the local requirements of sites based in different locations with varying levels of infection or vaccination rates. Where possible, back-to-office plans were introduced to offer an opportunity to those employees who wished to return to the office. Remote working remained possible on a broad basis across Lonza for applicable employees.

Thanks to the collective efforts of our employee community, we continued to manage business continuity globally while fulfilling our responsibilities to our customers.

Leveraging Lessons Learned

Moving into the second year of the pandemic, we were able to benefit from the actions we took in 2020. This included our IT measures, which ensured our systems supported the increase in remote working and trainings to help employees make optimal use of our remote working technologies.

In some cases, our teams were able to turn the challenge of the pandemic into an opportunity to innovate and bring long-lasting benefits to the organization. Lonza's Digital Transformation team started building a virtual reality (VR) training concept to remotely train large numbers of employees in critical operations across different sites on new manufacturing methods. This VR environment allowed users to gain digital experience performing critical operations such as cleanroom behavior and working in the biosafety cabinet.

Looking to the future, VR training platforms also provide tangible benefits beyond the pandemic. Users can be trained anywhere, at any time and often in a manner that does not interrupt commercial production and have also made remote support possible.

Realizing Our Purpose in an Exceptional Time

Throughout the pandemic, we have remained focused on fulfilling our purpose of enabling a healthier world. In addition to our divisional customer projects, we continued to develop and manufacture drug substance for COVID-19 vaccines and therapies. Furthermore, we welcomed 33 regulatory inspections as well as an increasing number of customer audits (including both onsite and remote audits).

We expanded our collaboration with Moderna to produce drug substance for its Spikevax COVID-19 vaccine. In May 2021 we announced an agreement to double production capacity at our site in Visp (CH) to six production lines, while in June we announced that a new drug substance production line will be installed at our site in Geleen (NL).

Beyond our collaboration with Moderna, we have been working on additional COVID-19 customer projects. Few examples include:

- AstraZeneca’s AZD7442, a combination of two long-acting antibodies
- Capricor’s CAP-1002, its cell therapy candidate for the treatment of Duchenne Muscular Dystrophy (DMD) and complications arising from COVID-19
- Humanigen’s Lenzilumab COVID-19 therapy

Personal Perspective

Andreas Bohrer

Group General Counsel

In 2021, Lonza’s Global COVID-19 Taskforce - comprised of leaders across key business functions – continued to manage the evolution of the pandemic. Remaining true to our key principle of “no panic – no complacency”, we swiftly implemented measures based on reliable internal and external data to protect the health and safety of our employees while ensuring business continuity.

Building on the experience gained in 2020, we captured opportunities to replicate best practices and share lessons learned. Knowing there is no one-size-fits-all response to the pandemic, we followed an agile global approach by pursuing local strategies to deliver the best response for each unique situation.

As we move into a third year of working and living through the pandemic, the Global Taskforce will continue to lead through empowerment, teamwork and trust. By providing guidance from a central source, we empower our sites with a framework to implement measures that are tailored to their location and employee communities. Finally, by recognizing how far we have come, we have tremendous trust and confidence that our global colleague community will continue to work collectively to achieve the common goal of managing our business and people through COVID-19.



Talent Management

Strategic Overview

With the launch of the Lonza People Strategy in 2021, we introduced a clear employee offering for how we attract (Come), empower (Stay), develop (Grow) and connect with our people, enabling them to make a meaningful difference. We have also launched the Lonza Roadmap, which provides us with a clear and engaging corporate identity, with a vision to bring any therapy to life and a purpose to enable a healthier world.

Executing the People Strategy was a key priority for the Human Resources function, alongside continuing to ensure the health, safety and wellbeing of our people during a year of continuing challenges arising from the COVID-19 pandemic. At the same time, we began to consider the future new working environment, whilst also managing the temporary easing of restrictions in certain countries, as well as subsequent re-enforcements.

Throughout the year, up to one third of our global workforce continued to work remotely in line with local government restrictions. Our on-site workers continued to physically attend manufacturing sites and research and development (R&D) facilities, supported by clear guidelines and procedures to protect and maintain their health and safety.

In addition to the successful execution of our People Strategy and ensuring the health and wellbeing of our workforce, growth continued to be a key focus across the organization in 2021, with a total of more than 4,500 new hires¹ made over the course of the year. The attraction and onboarding of our new people was a strategic priority as we began operations in multiple new facilities. In addition, we integrated new sites to our network to strengthen as well as expand the technological platforms of our organization, such as the Codiak Exosomes Manufacturing Facility in the US and the Exosomics Service Unit in Italy. Alongside these recruitment and integration activities, we have continued to support and grow our talented workforce.

¹ More than 4,500 is the total number of new joiners in 2021 (headcount, excluding contingent workers). The net increase of FTE totaled more than 2,000

² The generation is generally defined as people born from 1946 to 1964

³ The generation is generally defined as people born from 1997 to 2015

People at Lonza

Our global organization reflects a broad range of backgrounds, cultures and perspectives with more than 100 nationalities represented across 30 countries. It is a cross-generational community – from Baby Boomers² to Generation Z³ – with a proportionate increase in the recruitment of younger employees. Globally, the gender split remains at 36% female and 64% male, with a trend towards a higher number of female employees in Generation Z.

The global employee community takes a welcoming and inclusive approach to diversity by embracing a wide range of perspectives and experiences, which help to drive innovation and creativity. We understand the value and importance of diversity across our employee community, and further information on recent initiatives in this area can be found in our 2021 [Sustainability Report](#).

Come to Lonza (Attracting the Right People)

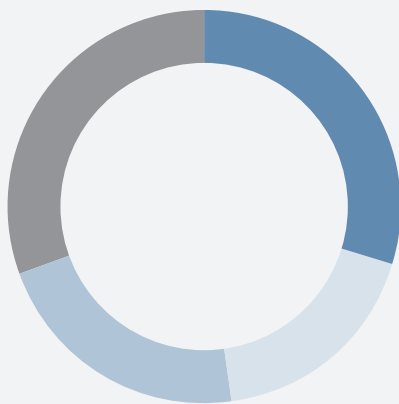
With our strong current focus on growth, we have worked assiduously to attract industry leading talent into our business over the course of 2021.

More than 4,500 employees¹ joined Lonza in 2021 with 48% located across three key sites: Visp (CH), Portsmouth (US) and Houston (US). 40% of these new hires related to strategic growth areas, including mRNA, Ibex[®] Solutions and Cell & Gene Technologies.

To ensure a consistent and coherent onboarding process, we introduced a Welcome Center in Visp and piloted a digital onboarding platform in both Visp and Houston. We also created a suite of localized Employer Value Proposition videos and campaigns across our sites in Houston (US), Geleen (NL) and Tuas (SG), key functions and our Cell & Gene and Biologics divisions. These have been used both to attract new candidates into the business, as well as helping new colleagues to understand our work and values.

We have already reviewed the impact of our current initiatives and identified areas for improvement and expansion. This will support our sustained focus on continuing to expand our employee community in line with our ambitious growth plans in the years to come.

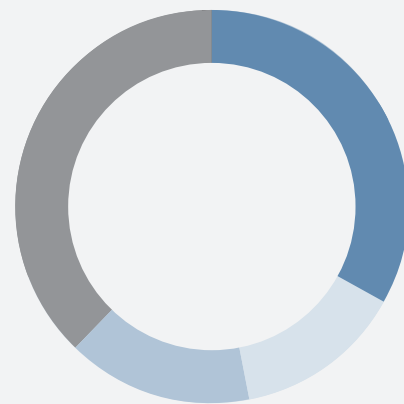
Geographic Diversity



Americas
APAC
EMEA
Switzerland

All figures are exclusive of the Specialty Ingredients business, that was sold on 1 July 2021

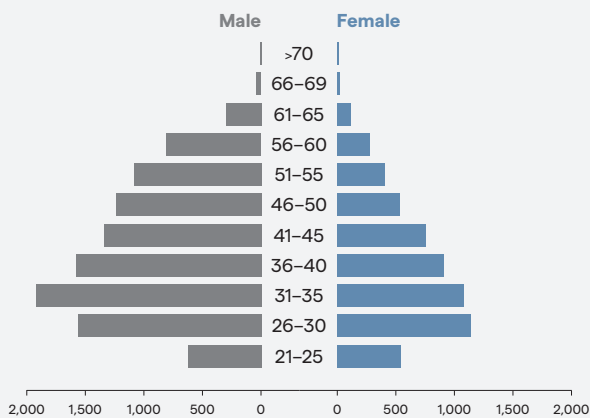
Hires in 2021 by Region



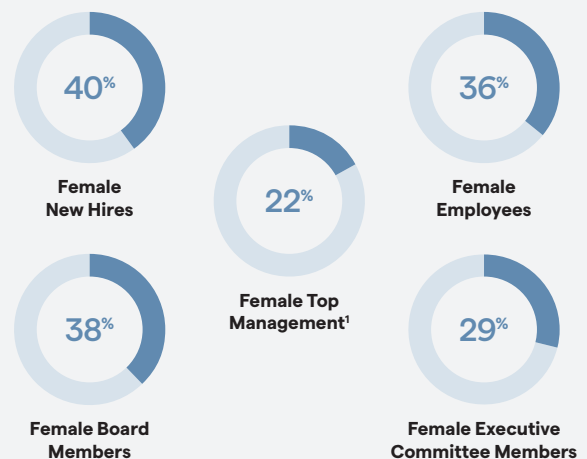
Americas
APAC
EMEA
Switzerland

All figures are exclusive of the Specialty Ingredients business, that was sold on 1 July 2021

Broad Balance Across Age Groups



Five employees did not wish to disclose their gender



All figures are exclusive of the Specialty Ingredients business, that was sold on 1 July 2021

¹ Reflects female top management reporting into the Executive Committee. Previous years' figure (31%) represented all female roles reporting directly into the Executive Committee, which sits at 32% of the population in 2021. All female management roles within Lonza sits at 26%.

Stay at Lonza (Empowering Environment for our People)

Ensuring that our existing employees are respected, appreciated and empowered to make a meaningful difference, is a critical component of our People Strategy. We understand that it is not enough to accelerate recruitment if we do not also work to retain our employees.

2021 has seen a focus on retention, with an employee turnover rate of 10.9%.¹ This figure is reflective of the industry standard on a global level. However, higher rates have been identified in the Americas (16.6%).¹ This further enforces the requirement for prioritization within this space.

To provide insights into the reasons why our talent leaves the organization, structured exit interviews were established in 2021 on a global basis. Among the top reasons given were the desire for further promotion, recognition and work schedules, with the most common reason being lack of perceived promotions. 74% of respondents reaffirmed that they would work for Lonza again in the future, suggesting that the large majority had a positive experience during their time with the company. This data will continue to be gathered in 2022 with a focus on utilizing the output to best shape our initiatives for future change.

We work in a highly competitive industry, which means we must strengthen our offer to ensure that our colleagues are inspired to stay with us. In this context, we have worked to improve the “moments that matter” in our employee journey, including a full review of how we reward and recognize talent across our global network.

This work included the redesign of the former Short Term Incentive Plan (STIP) to form the new Lonza Bonus. We have also commenced an initial review of the equity plan offerings – our Long Term Incentive Plan (LTIP). These changes will ensure that we offer a competitive reward package to attract new talent while also recognizing the contributions made by our current employees and retaining our high-potentials for the long-term. Changes and enhancements to these programs will go live during 2022 and 2023.

Our ongoing learnings from the pandemic resulted in the revision of a Benefits strategy with specific focus on Wellbeing. This has enabled us to further strengthen the global Employee Assistance Program (EAP) which was launched in 2020 to support employee health and wellbeing. Key strategic initiatives included events about effective stress management, how the COVID-19 pandemic has affected children, ergonomics, general financial planning considerations and healthy movement at work. These were accompanied by the provision of wellness assessments.

Grow at Lonza (Developing our People)

Personal growth and development is a vital part of our employee career journey and long-term job satisfaction. During 2021, several programs were developed to support professional growth, including the global launch to all employees of LinkedIn Learning to support a personalized approach to self-development and 24.5% of our positions advertised were filled by internal candidates².

Our Voice of the Employee Survey was conducted in Q3 2021 and provided critical data to company leaders. It provided an overview of strengths that may be harnessed and galvanized from within the organization, as well as highlighting opportunities for change and improvement. Throughout 2022, these results will provide a platform for all of our people managers to acknowledge the current position and take active and decisive steps to support beneficial change in their teams. To maintain momentum, and ensure our employees feel truly heard, we plan to host the survey again in 2022 to track our progress and encourage further feedback to drive new waves of evolutionary development.

The role of the managers has become increasingly important in the development of all new programs. In this context, we have placed a focus on empowering our leaders and managers to have informed and insightful discussions with their teams. We have worked with leaders and managers to introduce a global recognition program Bravo, engage their teams around the new Lonza Bonus program, as well as empowering them to drive positive changes based on the insights from the Voice of the Employee Survey results.

¹ The figures (10.9% and 16.6%) relate to voluntary turnover. Voluntary turnover reflects employees who left Lonza through personal choice and does not include those who had their contracts terminated either for cause or for restructuring. The total turnover rate is 12.7%.

² Excludes promotions without active recruitment process

³ More than 4,500 is the total number of new joiners in 2021 (headcount, excluding contingent workers). The net increase of FTE totaled more than 2,000

Looking to 2022

Having laid firm foundations for strategic change in 2021, we will capitalize on this momentum over the coming year. We will also build on the insights from the data points now established, as we see the People Strategy enter its second year of maturity.

As part of our key initiatives for 2022 we are planning to further strengthen key systems and processes to ensure that we are able to sustain the ongoing business needs with optimal levels of efficiency and a wider focus on Lean. 2022 also presents the opportunity to drive further progress on adapting and enhancing our current approaches to a more systematic engagement, refined reward, as well as overall onboarding experience. Employees and leaders are at the forefront of those changes to ensure that we are fit to deliver at pace through a sustained period of ambitious growth.

Personal Perspective

Caroline Barth

Chief Human Resources Officer

Even during the most challenging times of the COVID-19 pandemic, we have continued to focus on talent attraction, development and retention as critical elements for Lonza's long-term success. The HR team has worked diligently to recruit new talent in line with Lonza's ambitious growth plans, while working to retain engaged and established colleagues.

In 2021, more than 4,500 candidates³ accepted offers of employment from Lonza across the world and have been successfully on-boarded. Concurrently, a robust talent pipeline continues to support our growth trajectory through a wide range of talent scouting and attraction initiatives.

Key to the team's success has been the improved systematic use of data, both for our internal employee community and our external landscape, including insights from our Voice of the Employee Survey, exit interviews and external benchmarking. These insights have not only empowered our leaders to make changes within their organization but assisted planning in 2021, supporting the redesign of key Total Rewards programs,

which will help us to ensure that our employees' compensation, benefits, wellbeing and equity is competitive in the marketplace and fully reflective of our performance.

It is paramount that our existing employee community benefits from a supportive environment in which they are empowered to continually develop and progress. After another year of uncertainty as a result of the pandemic, we are further extending our wellbeing offerings for all of our employees, in addition to the traditional approaches. At a leadership level, we recognize the ongoing need to equip our teams with the appropriate training and support so that they can continue to drive engagement and team performance, which ultimately delivers our business success.

As we look to 2022, we will place a spotlight on initiatives to support the retention and engagement of our current workforce and those who join the company. Focus will also be given to the Lean management model and HR optimization. This will ensure strong foundations and effective processes are in place to sustainably support the growth across our global network.





Our Businesses

36 Innovations in 2021

38 Biologics

48 Small Molecules

54 Cell & Gene

60 Capsules & Health
Ingredients

66 Associates and
Joint Ventures

Our Offerings

We are the preferred global partner to the pharmaceutical, biotech and nutrition markets. We enable a healthier world by supporting our customers on the path to commercialization. Combining technological insight with world-class manufacturing, scientific expertise and process excellence, we help our customers deliver new and innovative medicines that help treat a wide range of diseases.

We cover a broad portfolio of services within the biopharma industry. Our capabilities span biologics, small molecules (including highly potent active pharmaceutical ingredients such as cytotoxins), bioconjugates and cell and gene therapy. We support projects from research, discovery and pre-clinical stages, through clinical trials to commercialization and our expertise extends across both drug substance and drug product. We also offer innovative capsules, dosage form solutions and health ingredients for pharmaceutical and nutraceutical companies.

Innovation in 2021

Continuous innovation is one of the defining characteristics of the pharmaceutical industry that helps patients to live healthier lives. As a contract development and manufacturing organization (CDMO), we provide technological solutions for a large variety of customer needs during the different stages of drug discovery and manufacturing.

Research & Development (R&D) represents a vital tool to ensure future success. It provides technological competence, a profound understanding of unmet medical and customer needs, and long-term insight necessary for strategic decisions and investments. Combined with our extensive development and manufacturing experience and knowledge of industry trends, our offering addresses unique challenges related to production, characterization, formulation and speed.

Our R&D focus areas often overlap and create strong synergies, leading to transformational cross-divisional projects impacting our business and the wider industry. Our key innovation projects are summarized below.

Winning the Molecular Lottery - Solving the Pairing Challenge of Bispecific Antibodies

Therapeutic antibodies entering the clinic are constantly growing in number and complexity. Since they can simultaneously bind two different antigens, bispecific antibodies can provide access to new mechanisms of action that are not accessible with traditional monoclonal antibodies.

However, it is a significant challenge to ensure correct heterodimerization (the correct pairing between the heavy and light chains) during the manufacturing of bispecific antibodies. Our proprietary bispecific platform technology provides a solution to this problem through the elimination of the native

disulfide bond between the heavy and light chain of one of the bispecific arms. It is replaced by a newly engineered disulfide bridge, thereby allowing only correct heterodimerization to occur.

With an average of 30 bispecific antibodies entering the clinic every year, our solution for producing bispecific antibodies ensures better manufacturability and clinical profile. This increases manufacturing efficiency, as well as easing downstream processing and purification.

Developing Therapies for Local Pulmonary Delivery

Monoclonal antibody (mAb) formulations are becoming more popular as a select therapy for various lung indications, including lung cancer, asthma and lung infections. However, the administration routes of these antibodies remain limited, with the majority being administered parenterally. Our R&D teams across our Small Molecules, Biologics, and Capsules & Health Ingredients divisions have opened the door to the possibility of better outcomes for patients with non-small cell lung cancer by developing a spray-dried formulation for inhalation.

The team developed a method for stabilizing the mAb in a solid-state by utilizing inhalation-friendly excipients. The particle engineering and formulation conditions were optimized to preserve the activity of the mAb while allowing for the production of particles appropriate for inhaled delivery.

As a result, the mAb is delivered through a dry-powder inhaler utilizing Capsugel® Vcaps® Plus capsules to patients in lower dosages with fewer side effects. This self-administration system can potentially result in better compliance and improved outcomes. Additionally, this spray-dried inhalation platform has the potential for positive impacts on other diseases such as asthma, chronic obstructive pulmonary disease (COPD), lung infections and other lung cancers.

The spray-dried project demonstrates how we bring a unique combination of science, technology, creativity and commitment to our projects while leveraging expertise and a global network across our organization.

Unleashing the Power of Exosomes

Exosomes are extracellular vesicles with a diameter of 30-150 nanometers that can carry various cargo, including proteins, small molecules, DNA, RNA, metabolites, and lipids. These vesicles, naturally released by cells into their surrounding fluid, can be selectively taken up by neighboring cells without eliciting an immune response. As such, these extracellular vesicles are rapidly emerging as a novel therapeutic platform.

However, the manufacturing process is not yet clearly defined. This is impacting the industry's ability to develop scalable solutions that would unlock the full potential of exosomes. The major challenges of the manufacturing process lie in the characterization and control. In general, isolation and purification have proved to be challenging due to issues with separating exosomes from other extracellular vesicles and particulate impurities.

We are pioneering in this field as the first company to build out CDMO capability for supporting exosome-based therapeutics. In addition, our R&D team developed a complete set of measurement tools that enable upstream and downstream process development, quality assessment and control, and product characterization. Along with other dedicated analytical techniques being developed, the toolbox includes a novel single exosome analysis using nanoscale flow cytometry to analyse exosome products at a very high resolution. This novel approach significantly improves the process and helps ensure pure populations of exosomes. This new method enables faster development for exosome-based therapies as they progress through clinical trials.

Providing Earlier Support for Antibody Drug Conjugates (ADCs)

ADCs are complex bioconjugates typically used as chemotherapy, allowing the selective delivery of a potent cytotoxic agent into a tumor. These bioconjugates comprise three molecular components: a mAb, a potent cytotoxic agent and a linker connecting the other two components.

This rapidly growing therapeutic platform benefits from an increasing diversity of bioconjugation technology. There are currently more than 500 bioconjugate molecules in the market, with ADCs representing more than 41% of the entire bioconjugate pipeline. Most of these ADC molecules are still in the discovery and early clinical phases, which means that these projects could potentially greatly benefit from early de-risking and developability assessments to ensure better outcomes during the proceeding manufacturing stages.

We have created a selected range of scalable state-of-the-art technologies that enable rapid expression of proteins and allow for scalable next-generation bioconjugates development. Recently, we have implemented a new offering which combines our expertise and external technologies to support customers in the pre-clinical stage to define bioconjugates lead candidates. These additional early development services provide a better knowledge base for bioconjugate architecture and technology selection, as well as lead selection and optimization.

Personal Perspective

Stefan Stoffel

Head, Group Operations

During 2021, we successfully implemented our new organizational structure with a clear focus on driving value across divisions, while leveraging synergies and establishing best practices and global standards.

Despite continuing global supply disruptions arising from the COVID-19 pandemic, we successfully delivered an unprecedented

portfolio of growth projects. In addition, we continued to fast-track and scale up the production of COVID-19 vaccines, to support the fight against the ongoing pandemic.

While we anticipate that delivery and distribution issues will continue in 2022, we expect to continue to manage the impact, as long as conditions remain comparable with the last two years. At the same time, we should ensure our internal processes keep up with the overall growth of the business. Therefore, we are embedding Lean working practices across the organization to drive agility and efficiency and achieve a more streamlined approach to delivery. This will enable us even better to meet our customer needs and expectations. Working in close alignment with our divisions and external suppliers while staying focused on implementing key strategic priorities will help us to achieve our goals.

Our top priority for 2022 is to improve the delivery of our large portfolio of growth projects and to secure supply continuity. We have introduced several programs to ensure that we maintain a competitive advantage in the coming years, as a strategic partner to the healthcare industry.



Biologics

>515¹

Pre-clinical and Clinical
Large Molecules

>50¹

Commercial
Large Molecules

¹ Including mammalian, microbial, bioconjugates and cell and gene therapy products (early development services, drug product services and personalized medicines are included for pre-clinical and clinical molecules only)

We continue to increase our presence across geographies to strengthen our integrated, end-to-end approach further. We offer manufacturing services for clinical and commercial material across our sites globally, from small-scale (1,000–2,000L) through mid-scale (3,000L and 6,000L) to large-scale (10,000L, 15,000L and 20,000L). We leverage our expertise in stainless steel, single-use and hybrid technologies to help de-risk the path to market for our customers.

Market Trends

The biopharmaceutical market has continued to develop favorably in 2021 and sales are expected to grow in the region of 11% (CAGR 2021 – 2026) across modalities¹. The associated increase in demand for outsourcing has led to healthy and sustained growth in the Biologics CDMO market, with a current forecast of 11 to 13% compound annual growth over the next four years².

This market evolution is being driven by a series of trends including growth in the molecule pipeline as well as new molecular formats and modalities often emerging from small, well-funded biotech. Expedited reviews and the need for speed to market have been pushed even further by the pandemic, combined with an increased focus on supply chain redundancy and preference for domestic development and manufacturing.

The high number of molecules being developed by small and virtual biotech companies is reflected in Lonza's biologics customer base with around three-quarters representing this group of companies. Smaller companies may not want to build in-house manufacturing capacity or the full range of expertise to bring their candidates to market and choose to outsource a broad range of activities from early-phase *in silico* optimization to formulation of the final drug product.

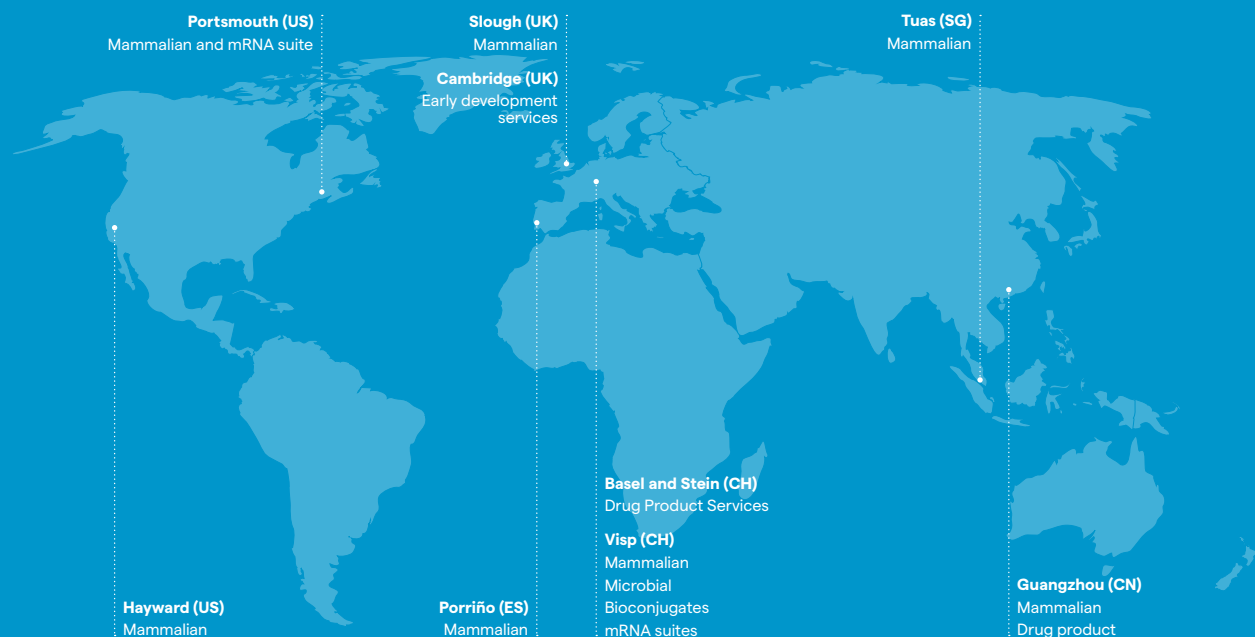
The emergence of novel therapies to target unmet medical needs is changing the product landscape. Increasing molecular complexity is creating demand for in-depth expertise in development and manufacturing services along with the technology to enable sustainable expression and scale up of new molecular formats. Platform technologies for bioconjugation or expression of bispecific antibodies for example can significantly accelerate development and production timelines and experienced CDMOs that can help customers accelerate time to market and de-risk investment are in demand.

¹ EvaluatePharma (2021)

² 2020-2025 CAGR in USD; Source: Frost & Sullivan (2021), Lonza internal analysis

³ Pharmaprojects (August 2021)

Our Global Development and Manufacturing Footprint



The development of mRNA vaccines and subsequent manufacturing at a global scale to respond to the COVID-19 pandemic represents a leap forward in Biologics development. Currently, there are around 220 mRNA candidates in development³ and nucleotide-based therapies and vaccines are expected to grow at 62% CAGR (2021-2026)¹. The pandemic has focused CDMO activity on rapid scale up of production for commercial supply but the demand for outsourced early-phase development services and technology is growing in line with this new generation of molecules.

Our Offerings

We are a leading contract development and manufacturing partner for biopharmaceuticals, serving our customers throughout their product lifecycle, from preclinical development, through trials, to launch and market supply. We partner with customers of all sizes, from start-ups to large biotechs and major pharmaceutical companies.

We have one of the most complete and flexible CDMO portfolios in the Biologics industry, consisting of mammalian and microbial expression systems as well as capabilities for bioconjugation and mRNA manufacturing. We are expanding drug formulation and drug product development and manufacturing to provide our customers with simplified and de-risked supply chains.

Mammalian remains a major production technology for the biopharma industry. With more than 20 years of experience in mammalian cell culture, we have established a respected and leading position in the mammalian space. We have a fully integrated portfolio of services, from late discovery through to commercial supply.

We also use robust technologies, such as our proprietary GS Xceed[®] Expression System for mammalian expression. As the pipeline becomes more complex, we have complemented this established platform with other molecular tools, for example PiggyBac[™] for stable expression of large DNA cargos and ByLok[™] Technology for the discovery and design of bispecific antibodies. By providing a toolbox designed to meet the needs of developing new molecular formats, we can improve speed to the clinic or market while helping to reduce the costs and delays associated with low yields and poor batch quality.

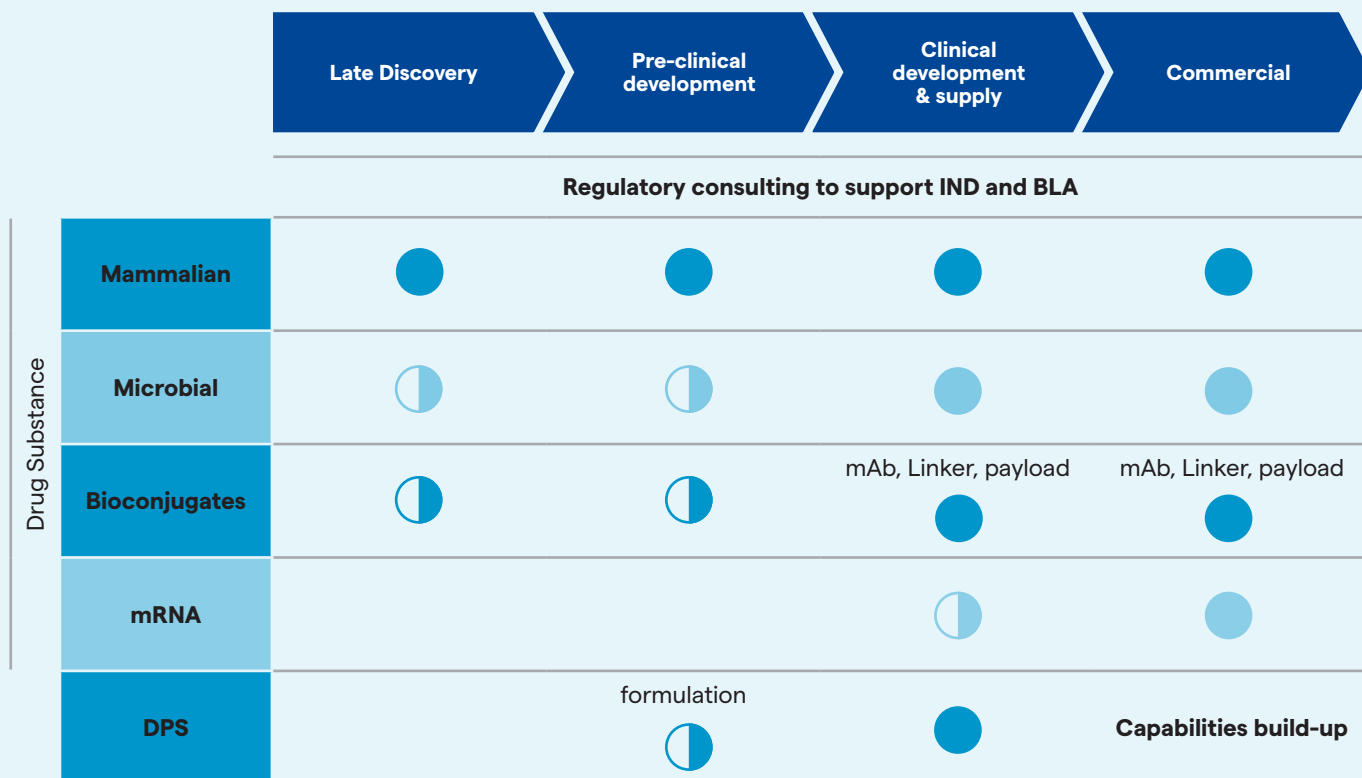
We have an extensive breadth of mammalian manufacturing capacities - from small-scale, single-use systems to mid- and large-scale stainless steel assets across the US, Europe and Asia. We can offer our customers phase-appropriate capacity and respond to the increasing need for regional manufacturing.

Within our **Microbial** business, we have a presence in every step on the path to commercialization. Microbial cell-derived molecules are produced exclusively in Visp (CH) and customers benefit from more than 30 years of expertise in this technology. Our offering of mid- and large-scale commercial manufacturing is supported by proprietary expression systems. These target the growing biotherapeutics development pipeline and, in particular, certain classes of more complex molecules largely being developed by smaller biotech companies.

We have extensive experience in microbial processes using advanced engineering and process development capabilities. Our toolbox contains well-established technologies for efficient, scalable and regulatory compliant processes. Our XS Technologies® platform for microbial expression includes *Escherichia coli*, *Pichia pastoris* and *Bacillus subtilis* expression systems.

Bioconjugates are a growing class of biopharmaceuticals and another important pillar of our Biologics business. We were among the first CDMOs to support the commercialization of bioconjugates and have a broad and established capability in manufacturing these complex molecules. We offer support activities from late discovery through to commercialization, with all elements of the complex supply chain, including the production of biomolecule, synthetic payload, linker and subsequent conjugation at our Visp (CH) site.

In 2021, we were recognized as best ADC contract manufacturing provider by the World ADC Summit. The award is testament to our simplified supply chain approach for the production of complex ADCs under one roof, making life-saving treatments accessible for our customers and their patients.



mRNA technology and its potential has truly emerged in the past two years. We have pioneered the commercialization of this modality through successful delivery of the Moderna COVID-19 vaccine drug substance. By making considerable pre-investments in our Ibex® concept in recent years, we were able to optimize pre-planned manufacturing capacity, enabling our customer to commercialize at speed during the pandemic.

The potential therapeutic value of mRNA technology is not limited to COVID-19 vaccines. mRNA has the potential to transform the way we manage and treat many illnesses and infections. As we move forward, we are already looking to build on this first-mover advantage to capture future opportunities and complete our offering across the value chain.

Our **Drug Product Services (DPS)** focus is on parenteral dosage forms, including products for injection and infusion for intravenous, subcutaneous, intraocular and other routes of parenteral administration. Services include options for monoclonal antibodies, other biologics including novel formats, noncytotoxic bioconjugates, peptides, viral vector and small molecules that require a parenteral dosage form.

To meet the growing need for end-to-end services and de-risked supply chains, we are actively expanding our drug product capabilities. We are expanding in Europe and China to further extend the value chain and complement our existing strong development offering in Switzerland.

Personal Perspective

Jean-Christophe Hyvert

President, Biologics and Cell & Gene Divisions

With strong demand for COVID-19 therapeutics, the development of increasingly complex molecules and higher manufacturing demand for new and existing medicines, we made significant investment in people, assets and capabilities in 2021.

An important focus for 2021 was how to welcome new colleagues and develop our people during the pandemic. We created a comprehensive virtual onboarding program for new joiners, as well as a modular mentoring and training program for existing employees.



We brought new growth projects online despite the ongoing challenges arising from the COVID-19 pandemic. We produced our first batches out of the new mid-scale facility in Portsmouth (US) and first mammalian batches in Visp (CH) and Guangzhou (CN) and brought online development and services capabilities in Visp and Singapore, in addition to our existing centers in the UK and California. We also announced growth initiatives across business units, including in drug product services, bioconjugates, mammalian, mRNA and microbial to ensure the flexibility and breadth of scope of our services and to further develop our integrated offering.

Demand for drug product across all modalities has been high this year with much of the CDMO capacity being reserved for COVID-19 vaccines and increasing demand for integrated offers and speed. As a result, we invested in additional capacity in Switzerland and China, complementing the drug product manufacturing capacity at the Visp site, which is expected to come online in 2022.

Looking to the future, we will continue to evaluate our network across our three key regions (US, Europe and Asia) to balance customer proximity and cost efficiency. We will also ramp up our new mRNA lines in Visp and Geleen (NL). Finally, we will also continue to maintain an active approach to business model innovation, and new technologies to support specific customer needs.



IBEX

Ibex[®] Solutions

Ibex[®] Solutions

Ibex[®] Solutions is a biopark of pre-built facilities supported by a flexible and responsive business model. Three innovative offerings - Ibex[®] Design, Ibex[®] Develop, and Ibex[®] Dedicate - span the complete product lifecycle of a biopharmaceutical from preclinical to commercial stages, from drug substance to drug product, all under one single contract. Our goal is to get new medicines and vaccines to our customers' patients faster and give customers the flexibility to manage supply, addressing drug development uncertainty and market demand changes.

Ibex[®] Design and Develop

Ibex[®] Design and Ibex[®] Develop cover the development and clinical manufacturing phases, supporting companies preparing for clinical trials up to the launch of their product. Completed in 2021, the facility that houses these offers is highly automated and employs single-use technology (1,000L and 2,000L bioreactors). They deliver clearly defined packages and timelines, essential for small companies with limited time and funds.

Ibex® Dedicate

Ibex® Dedicate is a fully customizable and flexible manufacturing solution, tailored to the customer's precise operational and business needs. The offering enables companies with products in late clinical and commercial stages to respond quickly to changes in market demand, de-risk their programs and simplify their supply chain.

The model of a technology-agnostic shell ready for fit-out with a relatively low initial investment has proved its worth for us and our customers, enabling various modalities to ramp up in record time. We now have a multi-purpose facility supporting: large- and small-scale mammalian, microbial, conjugation and mRNA. It serves as a testimony to our breadth of knowledge across modalities.



Highlights and Initiatives

Our Biologics division benefited from sustained customer demand in 2021, with high levels of capacity utilization and batch success rates. The business was able to meet high levels of demand by bringing online new facilities while also approving significant new expansions across multiple modalities.

In 2021 and beyond, our top priorities focus on strengthening our end-to-end offerings, increasing our presence across modalities and geographies, leveraging global capabilities to offer an agile delivery model and enhancing technological edge through further innovation.

Building Flexible Capacity

To strengthen our global network and to support market demand and future growth, we continued to invest in new capacities, including in Portsmouth (US), Visp (CH), and Guangzhou (CN).

We announced CHF 850 million of [investment](#) to build two new state-of-the-art mammalian facilities in Portsmouth and Visp. In Portsmouth, a new next-generation facility supporting late-phase clinical and commercial development and manufacturing will add capacity for up to eight 2,000L single-use bioreactors. The facility will help meet the increasing market demand for small- to mid-scale mammalian-derived biologics and support the implementation of high titer and high throughput platform processes. Combined with our industry-leading services in process characterization and process validation, the facility will offer customers an optimized path through Biologics License Application (BLA) to market and the flexibility to meet challenges in product forecasting during the initial years of product launch. It is expected to be completed in 2023. In Visp, a new large-scale facility with the latest manufacturing technology will expand capacity by six 20,000L bioreactors to meet increasing market demand for biologics (see *more in section Ibex® Solutions*).

Another milestone in 2021 was the start of operations at our Guangzhou site. By the end of the year we had delivered our first cGMP batches. Furthermore, as part of our continued investment in China and in line with our strategy to provide integrated end-to-end solutions to customers, we will offer combined drug substance and drug product manufacturing services at the Guangzhou site, expected to come online in 2022 (see *more in section Expanding End-to-End Offerings*).

Ibex® Solutions – Our Commitment to the Full Lifecycle of Customer's Products

In 2021, our Ibex® Solutions offering remained highly attractive to customers. Modules in our first manufacturing complex are now fully allocated. The range of technologies, clearly highlights the value of the concept. Technologies include mRNA, microbial, mammalian and bioconjugation.

Building on the success of our Ibex® Dedicate model, in 2021, we approved investment for additional [expansion](#) into a second manufacturing complex in Visp (CH) and work has already started. The investment will provide a new large-scale mammalian drug substance manufacturing facility with six 20,000L bioreactors due to be operational by 2024. A significant proportion of this new capacity is already contracted, including by a major biopharmaceutical partner for large-scale monoclonal antibody supply for antibody-drug conjugates (ADC). This [collaboration](#) represents a significant development of an existing customer relationship where we already provide highly potent payload, drug-linker and conjugation services. The partnership enables the customer to access commercial-scale production of all elements of its ADC at one site, ensuring security of supply while delivering significant economies of scale.

We also signed new programs in Ibex® Design and Develop, including with [Immunitas Therapeutics](#), [aTyr Pharma](#) and [BlueJay Therapeutics](#). These collaborations are aimed at helping biotech companies to advance their innovative medicines from gene to investigational new drug (IND). For example, as part of our agreement with aTyr Pharma, our Ibex® Design will deliver GMP drug substance and drug product batches to support the company as it advances its novel therapeutic antibody from preclinical to clinical stages.

Providing the Expertise and Tools to Scale Complex Medicines

By combining established expertise across three development sites - Slough (UK), Visp (CH) and Guangzhou (CN) - with leading expression systems and molecular biology tools, we are able to support the specific needs of customers by developing complex molecules and new molecular formats.

For example, we will deliver a program for [Ankyra Therapeutics](#) designed to reduce time to clinic for its novel fusion protein, a cytokine-based immunotherapy developed for intratumoral injection.

For production of many new molecular formats such as nanobodies, designed ankyrin repeat proteins (DARPin) and single-chain antibodies, microbial systems may be more productive. As part of our continued focus on expanding the [microbial service offering](#) supporting clinical and commercial programs, we also expanded our development laboratories in Visp by 50%. This new capacity will consolidate the microbial footprint at the Visp site and add new high throughput equipment and automation processes to drive efficiency and project delivery.

In 2021, we also continued to drive improvements in our internal innovation portfolio as well as extending partnerships with external innovators to provide a molecular biology toolbox tailored to the changing needs of cell line development and protein expression.

Expanding Clinical Development and Manufacturing in Asia

As part of our continued investment in Asia, we [expanded](#) our mammalian development services in Singapore. The expansion will double the existing footprint at our labs and establish additional capacity for cell culture, purification and analytical services for mammalian biologics. We will also invest in the latest technology for mammalian processes and analytical development.

During 2021, we fully validated our clinical drug substance facility in Guangzhou (CN) and announced the addition of clinical drug product capacity. This provides a full-service offering targeted to the growing needs of Chinese biotech or other companies wishing to access the Chinese market. The response has been extremely positive and we now count [Junshi Biosciences](#), [Pinteon](#) and [ValenzaBio](#) among our customers in this fully operational facility.

The collaboration with Junshi Biosciences demonstrated our strengths in providing high-quality and reliable services for local pharmaceutical companies under the CDMO model. The agreement builds on an existing relationship and will accelerate the development and manufacturing of Junshi's various biologics products, including its current and future antibody-based product pipeline. The main production platform will utilize our GS Xceed[®] Expression System.

Expanding End-to-End Offerings

Strengthening our Drug Product Services (DPS) offering has been a priority in 2021. To support this, we have announced several key expansions. Since setting up DPS in 2016, we have expanded our offering in Basel (CH), Stein (CH), Visp (CH) and Guangzhou (CN). These new investments enhanced our global drug product manufacturing and fill and finish capacity to three sites, including four vial lines and one flexible filling line.

Financial Performance in Full-Year 2021

Comparison vs. Prior Year

2,699m

Sales (CHF)

+24.7%¹**979m**CORE EBITDA
(CHF)**+17.8%****36.3%**CORE EBITDA
Margin**-2.4ppts**¹ Sales growth, expressed as a percentage (%), is at constant exchange rate (CER)

In 2021, we expanded our network in [Switzerland](#). Our center of excellence for drug product development is based in Basel. We are currently adding more labs to further support the pharmaceutical development for early and late clinical stages and increase our process development and characterization capabilities. Alongside this, in our main drug product site in Stein, we are installing a new aseptic fill and finish line. This investment will allow us to process various modalities, including monoclonal antibodies, bioconjugates, viral vectors, and other gene therapy products. These two investments will complement our Visp site's drug product manufacturing capacity, expected to come online in 2022 as part of the lbex® Solutions offering.

We are also establishing drug product manufacturing capacity for clinical trial and commercial supply in China by installing a new drug product fill and finish manufacturing line at our [Guangzhou](#) site. Expected to be completed in 2022, the sterile, multi-product fill and finish line will support the filling of liquid and lyophilized products. This expansion will establish our capacity to offer our customers in China and worldwide combined drug substance and drug product manufacturing services for clinical trial and commercial supply.

mRNA – Expanding Commercial Capacities and Building for the Future

In May 2020, we announced a ten-year strategic collaboration agreement to enable the manufacture of Moderna's Spikevax COVID-19 vaccine and additional Moderna products in the future. Our initial agreement provided for the installation of three production lines at our Visp (CH) site and one further production line in Portsmouth (US).

In 2021, we further expanded our collaboration with Moderna to extend our mRNA drug substance manufacturing and we announced an additional four production lines, doubling our mRNA production capacity. In Visp, we [announced](#) three new production lines, which are coming online in Q1 2022. We also built an additional [production line](#) at our site in Geleen (NL), on an accelerated timeline. We were able to leverage our existing infrastructure at the site to provide a fast build-out and ramp-up of operations.

Innovation Spotlight

Enabling delivery of cutting-edge therapeutics

For the rapid development of next generation CHO host cell lines, access to an in-house gene editing technology is critical. CRISPR is a flexible gene editing technique, which facilitates the precise 'cut and paste' of DNA in order to engineer optimized production cell lines. In December 2020, we signed an agreement with Arbor Biotechnologies to evaluate their proprietary CRISPR platform.

Based on data from the initial evaluation, we have initiated an extensive research program. We will use the gene editing technology to precisely engineer the production machinery of our proprietary CHO host cell. This will further enhance its capabilities and pave the way for tailored solutions for manufacturing of new molecular formats. Giving our customers access to next generation CHO hosts will enable delivery of cutting-edge therapeutics to address currently unmet patient needs.

Improving parenteral drug product stability and safety

Polysorbates are highly efficient protein stabilizers widely used in biotherapeutics. However, their wide industrial implementation is connected to challenges around their degradation. The compounds arising from enzymatic degradation of polysorbates (free fatty acids) pose a significant challenge to the drug product quality and safety because their presence leads to the formation of visible and sub-visible particles.

Our Drug Product Services team has developed and implemented a new rapid test to measure the potential level of polysorbate degradation based on detecting the activity of lipases, enzymes responsible for polysorbate degradation in drug formulations. This new diagnostic tool has been submitted for patent protection and has already helped several of Lonza's customers identify the root cause for polysorbate degradation in their products, aided process improvements and improved product stability and patient safety.



Small Molecules

>265¹

Pre-clinical and Clinical
Small Molecules

>195¹

Commercial Small Molecules

² Including active pharmaceutical ingredients (API), highly potent API (HPAPI), dosage form and delivery systems and particle engineering

Currently we have a global network of six sites across Europe, USA and China covering drug substance, particle engineering and drug product development and manufacturing. This footprint allows us to remain geographically aligned with the major growth markets in the biopharmaceutical industry. These key markets account for more than 60% of overall global pharmaceutical growth.

Market Trends

Small Molecules are a key driver for biopharmaceutical sales and account for approximately 60% of global market revenue.¹ Demand is driven by improved global access to medicine, demographic trends, public health initiatives and pricing reviews², as well as new drug launches.

The small molecules market is fragmented and growing at different rates, with an overall average increase of around 5%.³ One of the fastest growing areas is highly potent active pharmaceutical ingredients (HPAPI), which is currently showing 8-10% growth.^{3,4}

Oncology continues to be the therapeutic area with the largest number of active compounds in development at 37.5% of all drugs in the clinic.⁵ This strong oncology pipeline is helping the growth in HPAPI to outgrow the wider market.⁶ Many small molecule oncology therapies require specific manufacturing technologies, such as containment for bioconjugate payloads and bioavailability enhancement for poorly soluble compounds.

About 80%⁷ of the clinical pipeline in small molecules comes from small and emerging companies. Their business models tend to focus on fast time to market to secure a competitive edge. Our small molecules offerings are designed to meet the need for accelerated timelines so that our small biotech partners can rely on rapid early-stage clinical supplies to gain this advantage.

There is also a trend towards increasing levels of complexity in small molecules. This is seen with longer synthetic pathways, demanding expertise in the management of complex supply chains. Complexity is also seen in drug product formulation, with low solubility exhibited by 70% of clinical candidates, requiring techniques for bioavailability enhancement.⁷

¹ 2020 revenues for small molecule chemistry by Evaluate Pharma

² IQVIA Market Prognosis Global 2021-2025

³ Source: Lonza internal analysis based on IQVIA, EvaluatePharma, Citeline and other third-party data

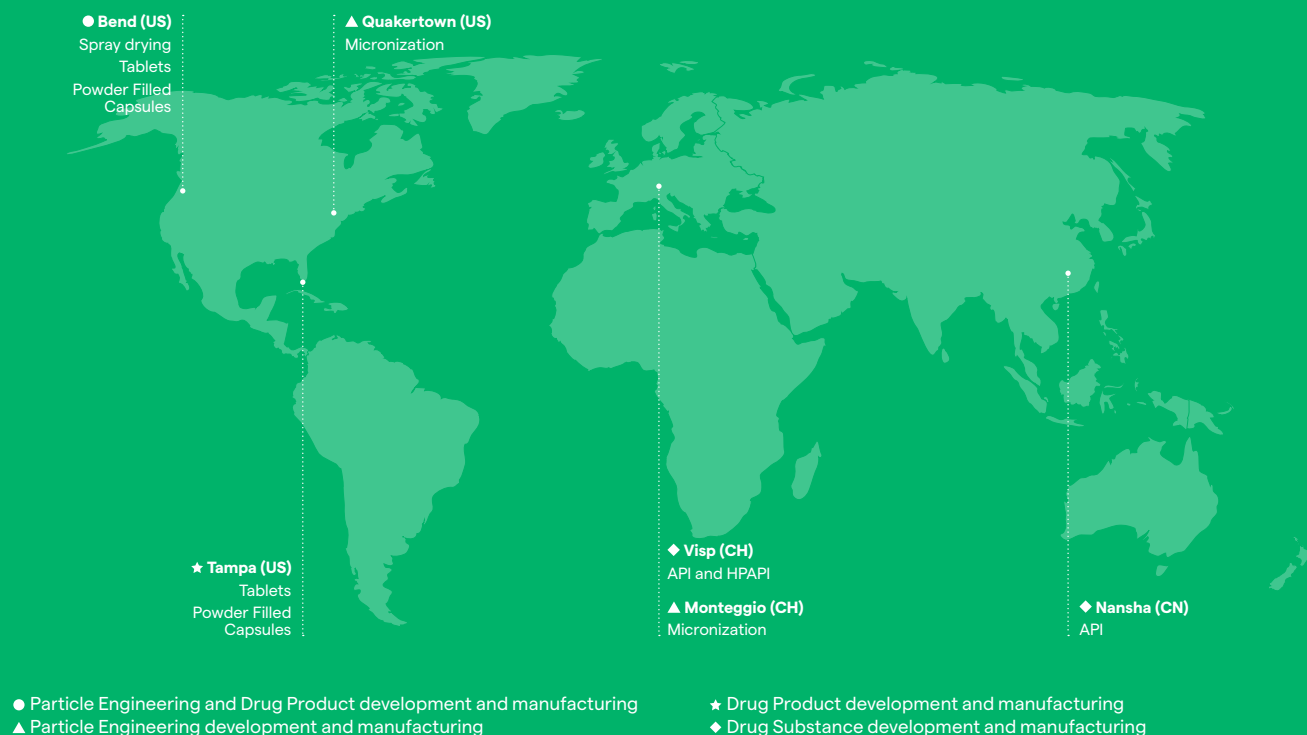
⁴ 2020-2026 CAGR in USD

⁵ Informa; Pharma R&D Annual Review 2021

⁶ RBC Capital Markets; Equity Research Report 2021

⁷ Source: Lonza internal analysis based on PharmaCircle and other third-party data

Our Global Development and Manufacturing Footprint



Our Offerings

We support our customers across all aspects of design, development and manufacturing by offering integrated drug substance to drug product solutions, including particle engineering and drug product packaging. We have an established and differentiated offering, and particular expertise with complex small molecules. Our integrated service offering provides substantial value to our customers as it simplifies interfaces, reduces costs and accelerates timelines across the entire drug development pipeline.

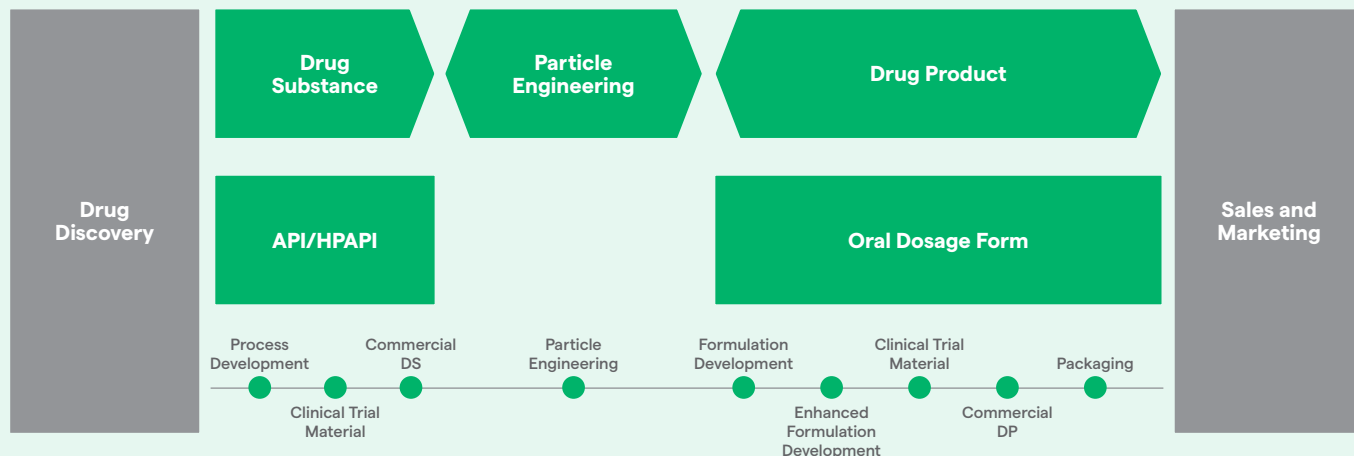
We are well established in the area of **HPAPI**. Our current offering provides advantages by addressing multiple challenges for customers who are working in this space. Our customers also benefit from our ability to customize our assets to meet the specific needs of their molecules. This is complemented by our integrated approach, which allows us to progress from clinical to commercial manufacture within a single site.

We also develop and manufacture **payloads for bioconjugates** at our Visp (CH) location and provide integrated development and manufacturing across antibodies, payloads, linkers and conjugations and sterile fill-finish. Since 2019, we have manufactured more than 30 HPAPI and approximately ten different bioconjugate payloads at our Visp site.

A key component of our integrated services is **particle engineering** across drug substance and drug product development and manufacturing. It is often required to meet today's drug delivery challenges, particularly poor bioavailability. Our particle engineering technologies include particle size reduction, spray drying, hot melt extrusion and melt-spray-congealing, all of which may be used for addressing a range of formulation challenges. Phase-appropriate assets are in place for our particle engineering technologies to support accelerated timelines to clinic and commercialization.

We are an established partner in early development programs and we continue to strengthen our early phase services. The [SimpliFiH®](#) Solutions is an integrated offering designed to reduce the timeline from initial idea to first-in-human (FiH) clinical verification. It addresses the bioavailability challenges that can be associated with new and complex molecules and can reduce Phase 1 timelines by three months compared to traditional approaches.

Our Integrated Service Offering



Financial Performance in Full-Year 2021 Comparison vs. Prior Year

767m

Sales (CHF)

+11.6%¹

215m

CORE EBITDA
(CHF)

+12.0%

28.0%

CORE EBITDA
Margin

+0.3ppts

¹ Sales growth, expressed as a percentage (%), is at constant exchange rate (CER)

Highlights and Initiatives

The Small Molecules business saw a significant number of new programs signed and the successful ramp-up of large assets in 2021. We continued to meet high levels of demand by approving new capacity expansions, which are all on track.

In 2021, we introduced an improved level of focus into the Small Molecules business by completing the strategic divestment of our Ploermel (FR) and Edinburgh (UK) sites. These divestments marked our exit from both soft gels and liquid-filled hard capsules for the pharma market.

Our business priorities are focused on strengthening our portfolio in the highest value areas of the market. We continue to work on expanding our capabilities in complex and highly potent products, strengthening our early phase offerings, deploying new agile manufacturing solutions and finding new ways to innovate.

Drug Substance Development and Manufacturing

In response to customer demand, we continued to invest in our offering by expanding manufacturing assets and development services.

In April 2021, we announced our plans to build [a new small molecule manufacturing facility](#) in Visp (CH). The new complex will include a customer dedicated manufacturing line for antibody–drug conjugate (ADC) payload molecules. The CHF 200 million investment is supported by a capital contribution and long-term collaboration with a major biopharmaceutical partner.

Taking inspiration from our Ibex® Solutions offering in Biologics, the new facility will also include a pre-built shell, allowing for optimal flexibility. The design will allow us to provide customized assets to meet customer needs and the pre-built modules will support a flexible approach and accelerate timelines to commencing operations. These advantages are important in a dynamic market and we are confident that it will be an attractive option for many customers. The facility will offer several opportunities for future small molecule expansions, including drug substance, particle engineering technologies such as spray drying dispersion and drug product.

Looking to the future, we also plan to grow our capacity across our three other existing production bases in Nansha (CN), Bend (US) and Tampa (US). In 2021 we announced [new investments](#) in good manufacturing practice (GMP) HPAPI laboratories and mid-scale manufacturing assets at our API manufacturing center in Nansha. These are expected to come online by Q3 2022. The investment of more than CHF 20 million will support our clinical-phase pipeline and allow us to provide a smoother transition from small-scale to large-scale manufacturing. With these expanded capabilities at our Nansha site, we continue to support the next generation of innovative and life-saving treatments with our customers around the world.

To enhance our capabilities in meeting accelerated timelines for increasingly complex molecules, we have [expanded our solid form selection services](#) based at our Bend site. The increased service capabilities and dedicated team complement our previously established SimpliFiH® Solutions first-in-human services, consisting of phase-appropriate drug substance and drug product development and manufacture. Our expanded solid form selection services offering is designed to meet the early-stage molecule development needs of biopharma players.

We are also on track with constructing new suites for the development and clinical manufacture of drug product intermediates and drug products utilizing spray-drying, hot-melt extrusion and melt-spray-congeal processing. These are due to be completed during Q2 2022.

Integrated Service Offering

Our comprehensive set of capabilities from drug substance through to drug product development and manufacturing enable us to support our customers with their development pipelines. As an example, we are [collaborating with Allarity Therapeutics](#) to provide an integrated solution for process development and manufacturing of drug substance and drug product for the clinical development of their oncology drug dovitinib. The collaboration will leverage our global network, utilizing our Visp (CH) and Bend (US) sites.

Personal Perspective

Gordon Bates

President, Small Molecules Division

During 2021 our Small Molecules team was proud to have played a key role in the supply of five innovator drugs approved by the US Food and Drug Administration (FDA) that will benefit patients across multiple therapeutic areas.

New manufacturing assets in Visp (CH) providing additional capacity came online in 2021 and are already delivering commercial product to customers across bioconjugates and Highly Potent Active Pharmaceutical Ingredients (HPAPIs).

We were also pleased to approve further investments in development and manufacturing capacity expansion across our global network. Construction activities are well under way for a new CHF 200 million small molecule manufacturing complex, alongside a dedicated manufacturing plant to support our customer Aurinia's approved product LUPKYNIS. Both plants in Visp will be operational in 2023. Additional early-phase capacity expansion at our facilities in Nansha (CN) and Bend (US) will start operations in 2022.

As we look ahead, we will continue to adapt to the needs of our portfolio of customers, ranging from small biotech through large pharma, with enhanced ways of working and increased capacity to provide security of supply across all stages of the product lifecycle.



Innovation Spotlight

Spray Drying Process Innovations for Bioavailability Enhancement

The majority (>70%) of new drug molecules in today's pharmaceutical pipeline are often limited in their oral bioavailability and new methods are essential in delivering these drugs to the body.

We are an industry leader in spray dried dispersions (SDD), which has become the go-to technology for improving the oral absorption of poorly soluble drugs. SDDs are produced by dissolving the drug and a polymer in a volatile organic solvent, then atomizing and using a heated drying gas to rapidly dry particles in a chamber. However, in extreme cases, poor solvent solubility prevents economical SDD manufacture.

To address these more challenging drug molecules, we have developed and commercialized innovative spray drying processes to improve dissolved drug concentration while avoiding environmentally unfriendly chlorinated solvents. Technologies include the use of new solvent mixtures and volatile processing aids to ionize drug and supersaturated solutions via "solvent shift". The addition of these new approaches to our existing superheated solvent technology expands and differentiates our offering in formulating our customers' drug candidates, by supporting improved outcomes in dosage form viability.

Cell & Gene

>20

cGMP Cell & Gene
Technologies Experience

>150

Process Development
Projects

286

Primary Cell Types

314

Bioscience Products Filed
with Regulatory Agencies

With our global network spanning three continents, we are supporting customers from research through to commercial production.

Market Trends

Cell and gene therapies are a new frontier in medicine. Rapid developments in this field have the potential to change the way patients with cancer or genetic diseases can be treated. These novel drug candidates have the capacity to provide improved patient outcomes and, in some cases, may even prove to be curative.

Cell and gene continues to be an area with rapid growth in investment and product pipelines. In 2021, the cell and gene therapy sector has seen strong clinical pipeline growth, commercial progress and record breaking investment. As of end of 2021, globally there were more than 2,700 cell and gene therapy products in development from pre-clinical through pre-registration stages¹. The sector had the highest annual number of regulatory approvals of new cell and gene therapy products¹. In terms of investment, in 2021 the sector received the highest annual financing to date. Companies in the sector raised more than \$23 billion, which is 16% increase from 2020².

There is a clear increase in the portfolio of therapies. The CDMO market outlook for Cell & Gene Technologies (CGT) shows mid-teens growth for the pre-clinical and early phases. This increases to the mid-twenties for the late-stage and commercial phases³. A compound annual growth rate for the whole CGT CDMO market is expected to reach more than 15% (CAGR 2021-2023)³. As customers gain greater visibility of the potential commercial success of their therapy, there is a greater appetite for longer contracts, which provide benefits to both customer and supplier.

The manufacture of these treatments also brings new challenges that range from the need for specialized media and other critical raw materials to gene-editing tools and IT. For example, the small patient-scale batch sizes for autologous products require automated solutions. This is critical to enable scalability and efficiencies in manufacturing to meet commercial demand for certain larger indications. Furthermore, getting these treatments to patients around the globe can present logistical challenges and requires stringent data integrity and vein-to-vein traceability. This is driving an increasing need for cost-effective and flexible IT systems, which can be rapidly deployed to improve decision making, quality and compliance needs. For allogeneic cell and viral vector gene therapies, there is a challenge in scaling-up and optimizing processes to increase yields and treat more patients per batch, while continuing to meet highest quality standards.

¹ ASGCT Gene, Cell, & RNA Therapy Landscape Q4 2021 Quarterly Data report

² ARM's virtual 2022 Cell & Gene State of the Industry Briefing, January 10th 2022

³ 2021-2023 CAGR for CGT Market in USD; Source: Informa Citeline and Lonza internal analysis

Our Global Development and Manufacturing Footprint



¹ Facility owned and operated by Nikon Cell innovation Co. Ltd. under Nikon-Lonza partnership

The cost of production still represents a major hurdle on the path to commercialization. New technologies that enable robust and efficient manufacturing to achieve replicable and high-quality treatments will be a cornerstone in the growth of the cell and gene therapy market. Innovation in manufacturing will be essential for the long-term success of bringing these therapies to patients.

Nonetheless, market growth is driven by improved clinical efficiency, allowing an increasing number of products to move towards late-stage and commercial phases, supported by accelerated approval pathways. Looking across the industry, the high potential of the market is becoming increasingly clear.

Our Offerings

Our Cell & Gene divisional portfolio is concentrated around three business areas: Cell & Gene Technologies, Personalized Medicine and Bioscience. As we work to address the complexities in research, development and manufacturing, the division looks set to transform the way we treat patients with cancer or genetic diseases. By providing the critical raw materials and enabling technologies together with expertise to support the development and commercialization of innovative therapies, we help de-risk and accelerate the path to market.

The **Cell & Gene Technologies (CGT)** business is focused on providing an integrated range of CDMO services that span the full value chain of cell and gene therapy modalities (allogeneic and autologous therapies and viral vector).

We provide an integrated offering of key services beyond traditional manufacturing, to meet customer needs end-to-end. These services include:

- Dedicated CGT [regulatory support](#) from initial regulatory submission to market authorization for fast-track approvals
- In-house [tissue acquisition](#) services with customized solutions to navigate the complexities of tissue sourcing
- Leading vein-to-vein partners for supply chain orchestration, apheresis network management, transport and logistics
- CGT media products, transfection technologies such as our proprietary [Nucleofector® device](#) and Bacterial Endotoxin Testing (BET)

We also provide a service offering and expertise in emerging and promising cell and gene therapy modalities such as:

- [Exosome-based](#) therapeutics manufacturing capabilities
- [Induced Pluripotent Stem Cell](#) (iPSC) manufacturing expertise
- Stem cell high-throughput large scale manufacturing
- Autologous and allogeneic immunotherapies manufacturing solutions
- [Viral vector](#) manufacturing for gene therapy including the production of adeno-associated virus (AAV), lentiviral and oncolytic viral vectors

Personalized Medicine is a start-up business unit developing breakthrough technologies to industrialize autologous cell therapies. A prominent part of this business is our Cocoon® Platform, a closed, automated system for patient-scale cell therapy manufacturing.

Our Bioscience business is a provider of specialty raw materials and enabling technology solutions. We provide our customers with the tools to develop, manufacture and test therapeutics, covering the entire journey to market, from gene to patient. Serving customer communities across academia, biotech and pharma, we can support all therapeutic modalities including cell and gene therapies, injectable drugs, vaccines and bio-manufacturing.

Personal Perspective

Jean-Christophe Hyvert

President, Biologics and Cell & Gene Divisions

The cell and gene industry continues to grow at an accelerated pace. As more programs are approved, reliability and quality is critical to bringing treatments to market. To meet our customers' needs, we have continued to invest to grow our network and capabilities, strengthen execution and differentiate through innovation.

Exosomes are emerging as a new modality for advanced therapies. The addition of two new sites in Lexington (US) and Siena (IT) has enabled us to enhance our extensive offer in this space and enable the manufacturing of new therapies.

In 2021, our proprietary Cocoon® Platform was used in a clinical trial with Triumvira where the first patient has been dosed with TAC-T cell breast cancer treatment. This development brings patient-scale therapy to solid tumors and has the potential to significantly improve clinical outcomes for some breast cancer patients. The Cocoon® Platform brings scalability, reliability and cost effectiveness at point of care.

We have also improved synergies between our Bioscience media business and our CDMO services. This has helped us to meet the demand for shorter timeframes for media and buffers, specifically with Moderna and Ibex® Solutions. Intercompany media sales have more than doubled and we have now started to co-develop media across some of our businesses.

Looking ahead to 2022, we plan to further develop our portfolio of services and products. We will continue to integrate the two new exosomes sites into our organization, and establish our position as a partner of choice for the late-stage clinical and commercial manufacturing of cell and gene therapies. This work will build on the success of the 2021 Pre-Approval Inspection (PAI) at our site in Houston (US).



Highlights and Initiatives

Across the Cell & Gene division in 2021, there was strong customer demand. The business saw improved synergies between the Bioscience business unit and our CDMO services, such as increased media and buffer supply to biologics programs and growing interest in technologies such as Nucleofector® for cell and gene therapies.

Our business priorities are focused on driving profitable growth in Cell & Gene Technologies, strengthening the Bioscience offering for the cell & gene market, driving the adoption and commercialization of the Cocoon® Platform and further accelerating the synergies between the three business areas.

As anticipated, the Cell & Gene Technologies business achieved a positive margin in Q4 2021. We will continue to work towards securing long-term sustainable and profitable growth. With an increase in the volumes of customer products as they progress towards commercialization, we expect to see fewer changeovers at our facilities. This will also help in achieving more established production processes and higher asset utilization rates, which will in turn improve our operational efficiency and reduce our costs.

Expansion into Emerging Modalities

In 2021 we continued to invest in innovative modalities by expanding our Exosomes manufacturing offering with Codiak Bioscience's exosome manufacturing site in Lexington (US) and Exosomics' Service Unit in Siena (IT). Exosomes are emerging as a new modality for advanced therapies and could become the next frontier in biotherapeutics.

Our [collaboration with Codiak](#), one of the most advanced companies in this modality will help drive the growth of the whole industry. The acquisition provides for worldwide access and sub-licensable rights to Codiak's high-throughput perfusion-based cGMP process, which we will make available to all Lonza customers for their exosome manufacturing needs. A Center of Excellence, established jointly, will leverage the strengths of both companies to advance developments in exosome production, purification and analytics.

With the addition of the [Exosomics' Service Unit](#) in Siena (IT) to our network, we have gained access to experienced talent, state-of-the-art knowledge and the ability to advance this therapeutic area further. Under the terms of the agreement, we will gain access to expertise and capabilities in the exosome field including analytics and characterization.

Financial Performance in Full-Year 2021

Comparison vs. Prior Year

602m

Sales (CHF)

+26.6%¹

106m

CORE EBITDA
(CHF)

n/a

17.6%

CORE EBITDA
Margin

+14.9ppts

¹ Sales growth, expressed as a percentage (%), is at constant exchange rate (CER)

Clinical and Commercial Programs

Building on the success of the FDA Pre-Approval Inspection (PAI) completed in 2021 in Houston, we further established ourselves as the partner of choice for the late-stage clinical and commercial manufacturing of cell and gene therapies. Our track record in the cell and gene therapy space has the capacity to bring hope to many patients. In 2021, we announced an [agreement with Aruvant Sciences](#) to manufacture its gene therapy, ARU-1801, a potential cure for sickle cell disease that can be given with one low dose of chemotherapy. We have already started process development and technology transfer activities at our Houston (US) site.

Our [collaboration with PsiVac](#) is another example of how cell and gene therapies are paving the way for more options to treat serious diseases. We have been granted the exclusive rights to manufacture Ixovex-1, a unique, patented oncolytic virus designed to provide personalized therapy for cancer patients. Process development activities are under way at our Houston facility, with a Phase 1 clinical trial planned for Q2 2022.

Personalized Medicine

Building on our experience, the Cocoon® Platform is already allowing us to tackle the traditional challenges of autologous cell therapy. We aim to enable our partners to provide personalized immunotherapies to critically ill patients faster, at a higher quality and lower cost. As we continued the commercialization efforts of the Cocoon® Platform during 2021, we entered into several collaborations with partners who are eager to establish a reliable, efficient and cost effective manufacturing process for scaling their therapies to market.

As part of our agreement with Triumvira, we successfully manufactured a TAC-T cell therapy [treatment](#) for a breast cancer patient. By transferring Triumvira's TAC-T cell treatment to our Cocoon® Platform, the company was able to accelerate development efforts and achieve IND approval in less than a year. This collaboration showed the potential of the Cocoon® Platform to manufacture therapies at third-party manufacturing sites using a decentralized manufacturing model. Our collaboration with Leucid Bio is another example where the Cocoon® Platform will be used in a decentralized model to optimize and streamline the manufacturing process for Leucid's CAR-T therapies.

The Cocoon® Platform is also demonstrating significant advantages in point-of-care manufacturing, as illustrated by our [collaboration](#) with CellPoint. The partnership is aimed at developing CellPoint's T-cell therapies for treating various cancers using our proprietary Cocoon® Platform, alongside our expertise in process development and regulatory approvals in several EU countries. Throughout 2021, we have been working with CellPoint to develop a manufacturing process that will allow a six- to seven-day vein-to-vein time frame to treat cancer patients. We also continued our collaboration with the Sheba Medical Center in Israel, where the Cocoon® Platform was used to deliver CAR-T cell immunotherapy treatments.

As we continue to commercialize the Cocoon® Platform, we will expand our collaborations with leading research institutes and academic clinical centers, including Stanford University, Fred Hutchinson and Parker Institute.

Moving forward, we will maintain our focus on building additional capability and functionality into the platform to address unmet market needs, while ensuring system robustness and exceptional customer service. Our goal is to build an autologous cell therapy manufacturing capability focused on cancer and monogenic rare diseases while building further on Cocoon's high market potential.

Bioscience

2021 marked the 20th anniversary of our Nucleofector® Technology and the launch of the next-generation [4D-Nucleofector® Platform](#). As molecular biology comes of age in medicine, our Nucleofector® technology is used increasingly to introduce DNA, RNA, proteins and other molecules such as CRISPR/Cas9 into cells for research and development of therapeutics. The device has been cited in more than 10,000 peer-reviewed publications since its introduction, clearly demonstrating its importance to researchers around the world. The next-generation 4D-Nucleofector® Platform brings user experience (UX) improvements that make the system even more intuitive and easy to use, firmly securing its place as a core method in cell-based research. Similar enhancements are planned for the high-throughput Nucleofection systems.

Throughout the year, we leveraged our expertise to develop new products that support the cell and gene space. We expanded our offering with [high-quality cryopreserved Leukopaks](#), which allow for more flexibility in immunology and cell therapy research.

Bioscience testing products have also supported the safe release of COVID-19 vaccines, resulting in increased sales as many companies scaled up manufacturing. Disruption caused by the pandemic focused efforts and investment on digital transformation projects, with increased interest in the implementation of electronic batch records and opportunities for our MODA-ES® Platform.

The pandemic has also raised awareness of the need for sustainable endotoxin testing. We have expanded our [PyroTec® PRO](#) Automated Robotic Solution for endotoxin testing to include options for rFC (a synthetic alternative to horseshoe crab-derived LAL tests). Through process optimization and automation of routine manual tasks, the PyroTec® PRO Automated Robotic Solution enables users to streamline and improve the performance of the QC laboratory, increasing lab efficiency and productivity.

Innovation Spotlight

Addressing the Urgent Need for Automation of Autologous Cell Therapy

Cell therapies, particularly patient specific (autologous) gene modified cell therapies, continue to flourish. The recent commercial approvals of gene modified cell therapies have shown incredible promise for the treatment of numerous oncological indications. However, the cost of these therapies will need to reduce significantly if this treatment paradigm is going to be competitive in the long term. Other biologics, or allogenic derived cell therapies, are possible alternative treatment options that have shown promise in early clinical trials and can potentially be provided at a much lower cost.

The key driver of cost for these gene modified cell therapies is manufacturing. Current manufacturing is labor intensive and cannot be scaled efficiently. We introduced the Cocoon® Platform in 2020 to address these limitations with the manufacturing of patient-scale cell therapies. The Cocoon® Platform is a closed and automated patient-scale bioreactor that performs the majority of the steps in the process. By closing and automating the manufacturing process, labor and facility costs are significantly reduced while quality and consistency are improved, leading to lower rates of batch deviations and failures.

In addition, the Cocoon® Platform provides the opportunity to add additional analytical capabilities to more closely monitor and optimize the manufacturing process. By partnering with companies like [Agilent](#), parameters like cell fitness and potential can be identified. This allows for real time adjustments to the manufacturing process, which may ultimately lead to a more potent and effective product. Automation is the only way that patient scale cell therapies can be manufactured at a cost that will be competitive in the long term. The Cocoon® Platform is leading the way in this field and is poised to be a leading solution, as the market continues to expand.



Capsules & Health Ingredients

~250

Billion Capsules Produced Annually in 2021

>30

Product Offerings

>44

Ingredient Patent Families

>54

Capsules and Dosage form Patent Families

Our wide range of products are manufactured in our established global site network across three continents. These sites also provide full technical, quality, regulatory and customer support. Our innovation centers provide state-of-the-art equipment, which enables us to collaborate and innovate with our customers.

Market Trends

The Capsules & Health Ingredients business primarily serves the pharmaceutical and nutraceutical markets.

In the pharmaceutical market, we saw modest growth in prescription drug usage as routine health regimens were impacted by COVID-19. This was slightly offset by the higher use of some over-the-counter medications. The new small molecule development pipeline remains healthy with a stronger focus on dosage forms that can support the delivery of new, more complex formulations and sensitive medications. We also saw interest in our dosage solutions from large molecule drugs, which often require better protection and improved bioavailability.

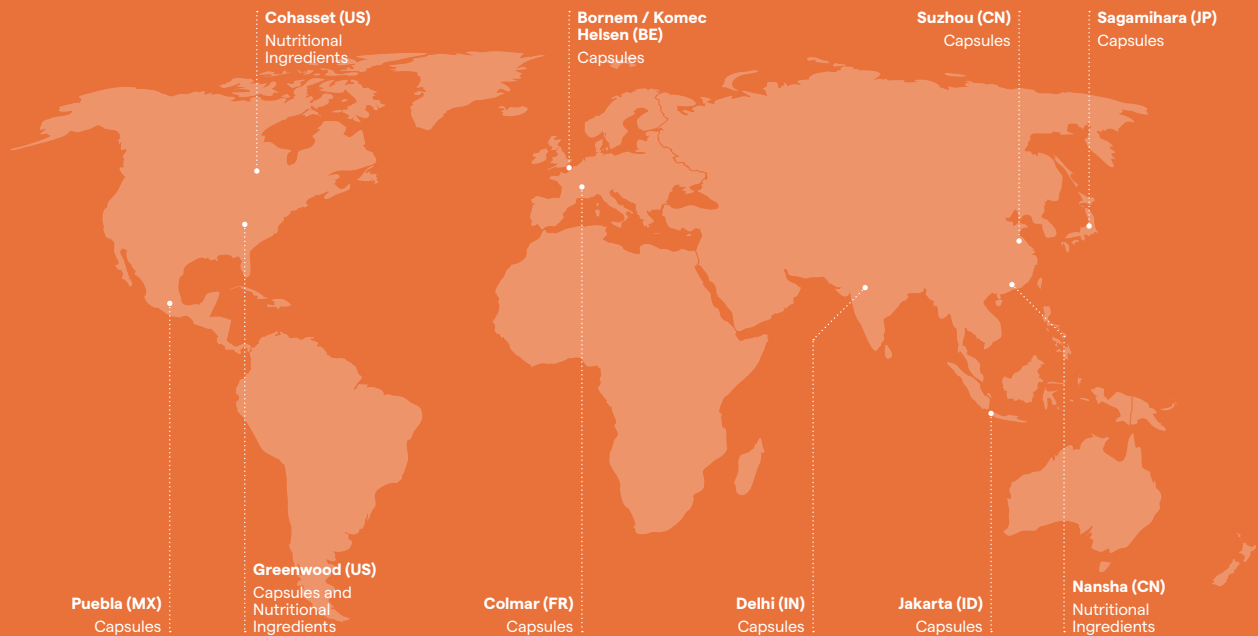
In the nutraceutical market, total demand grew from first-time consumers purchasing health supplement products. The strongest areas of interest were in immune, mood and active health products. Demand for clean label capsules remained strong, driven by consumer preference and emerging regulatory guidance for free-from products. We also saw continued interest in innovation collaborations and complete solutions, to support more complex formulations and end-to-end delivery of nutraceutical products to the market.

Our Offerings

Our Capsules & Health Ingredients business offers an innovative portfolio of dosage and formulation solutions for pharmaceutical and nutraceutical customers. We provide a large breadth of animal based, vegetarian, and clean label options with different release profiles and encapsulation technologies. This broad portfolio is produced from one of the largest global manufacturing network dedicated to production of dosage forms, providing our customers redundancy and local supply. Our focus is to help enable our customers to deliver their medications and health supplements to market safely, effectively and efficiently.

Our dosage solutions offer our customers a comprehensive range of high-quality capsules, dosage forms and delivery technologies. This combination allows our customers to customize their end medication or supplement and meet their unique product specifications and consumer preferences while complying with regulatory requirements. We also provide filling equipment and related technical services to optimize customers' fill and finish processes.

Our Global Development and Manufacturing Footprint



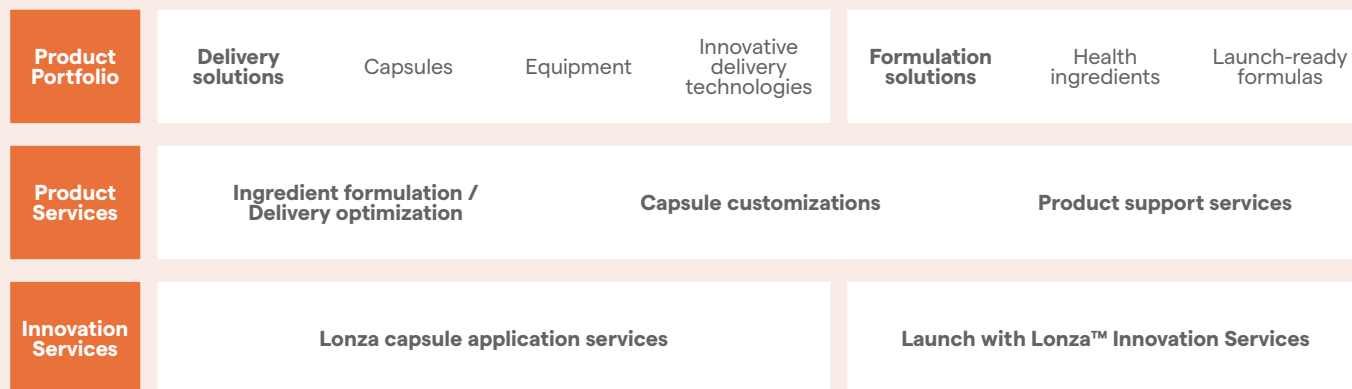
Our portfolio is fully supported through our global manufacturing, logistics, R&D, technical and customer service network.

In addition to our comprehensive dosage solutions, we offer formulation solutions with branded, scientifically backed, high-quality health ingredients to support active living through human and pet nutrition. Our portfolio includes premier brands such as UCII® for joint health, Carnipure® for energy and a range of branded products for weight loss, recovery and strength. We also provide launch-ready formulas which allow customers to use popular ingredients and go to market quickly, leveraging our technical and market knowledge.

Highlights and Initiatives

The business saw solid demand across product lines supported by particular regional interest from the Americas and APAC. We have delivered against our ambitious expansion plans and our global capacity increased to around 250 billion capsules annually.

Our Portfolio



Serving two distinct markets



Delivery Solutions

Our focus on innovation continued in 2021, with the development of new and innovative capsules and dosage capabilities. As an example, we invested further in the commercialization of our proprietary lipid multi-particulate technology, developing a commercial-scale manufacturing platform to meet high levels of demand. Lipid multi-particulate technology is a proprietary, innovative solution that helps maximize ingredient functionality and expands application versatility.

We have also been working with our customers to help navigate the complex regulatory framework changes in 2022. As the European Union Commission is looking to ban Titanium Dioxide (TiO₂) from food colorants, we are helping to convert customers to our TiO₂ free alternatives such as our White Opal® VCAPS® capsule. Alongside this, we offered additional testing for other harmful substances, such as Ethylene Oxide (ETO), to provide our customers with added assurance of our compliance with regulatory standards.

In addition, we have also introduced a number of operational and quality improvements. We completed the prototype of our next-generation proprietary capsule manufacturing machine, which will improve output while reducing deviations. It offers 15% higher throughput and 30% lower variability when in full production. Importantly, it can also be configured for a wider range of production outputs to meet evolving customer needs.

In 2022 and beyond, one of our top priorities is to drive greater levels of customer collaboration. In the Nutraceuticals market, our Dosage Form Solutions (DFS) helped introduce over 400 novel supplements, with the majority leveraging our unique dosage delivery technologies. Due to the popularity of these unique services, we expect to expand our DFS capacity and capabilities in 2022. Within the Pharmaceuticals market, we introduced our application lab (R&D innovation center) to selected customers and worked on a range of early-stage applications to solve different dosage delivery challenges. We expect to expand this innovation center in 2022 to take on more collaborations.

Financial Performance in Full-Year 2021

Comparison vs. Prior Year

1,204m

+5.6%¹

Sales (CHF)

414m

+9.5%
CORE EBITDA
(CHF)

34.4%

+1.6ppts
CORE EBITDA
Margin

¹ Sales growth, expressed as a percentage (%), is at constant exchange rate (CER)

Personal Perspective

Claude Dartiguelongue

President, Capsules & Health Ingredients (CHI)

As we look back on another challenging year, I am proud of how CHI has established itself and flourished as a new division. Over the course of the year, we have undertaken multiple strategic initiatives to grow our portfolio, expand our services, develop breakthrough technologies, better engage with our customers and improve efficiency. All remain on track and are delivering strong results. In response to the increasing global demand for capsules, we have delivered against our ambitious expansion plans and I am pleased to say that as of the end of 2021, we have the capacity to produce approximately 250 billion capsules annually across the world.



To support the value we place in our customer relationships, we piloted our customer experience program in EMEA with strong levels of success. The goal is to provide a systematic approach to interacting with and providing value to our customers. The pilot program has already improved our engagement with our customers and will help ensure that customer centricity remains one of our core capabilities.

The pandemic continues to bring uncertainty to both our business and our customers, and evolving demand forecasts continue to put our supply chain under pressure. As a result, securing our suppliers and maintaining supply chain continuity has been a key focus in 2021. On a positive note, the pandemic has allowed us to enter a new dialogue with our customers and move from short term transactional requests to a more collaborative partnership to address their long-term needs.

As we look to 2022, we plan to further expand our capsules capacity to meet global demand. Our priority is to build on our strong foundation and focus on innovative solutions across new technologies, services and capabilities. These include our LMP technologies, combination capsules, next generation enteric capsules, new ingredient claims and our concept to market innovations services. Enabling our customers to innovate will also bring new collaborations and mutual benefits.

Formulation Solutions

We furthered our commitment to our formulation solutions portfolio in 2021 by strengthening our collaboration with customers. One example was with Kaged Muscle, who was the first to introduce our new TWK10® sports probiotic under the Pro-biotic Premium Performance brand. The company also used our Capsugel® DRcaps® capsules, which offer a modified release profile beneficial for probiotics ingredients.

In addition, we announced the [expansion of our UC-II®](#) undenatured collagen ingredient line, which supplements joint health. The new UC-II® supplement is made with organic, non-GMO collagen, making it one of the only organic joint health supplements in the US. The new offering helps dietary supplement manufacturers differentiate their product in an increasingly competitive market.

Innovation Spotlight

Next Generation Enteric Capsule

We are developing a breakthrough technology platform to manufacture novel functional capsules. The first product in development is a next generation enteric capsule with optimal properties. This means it does not release or degrade during stomach transit and helps ensure a swift release in the distal intestine.

This new capsule will enable us to answer a pressing market need for more effective oral drug products. Indeed, many new drugs intended for oral administration are easily degraded by the acid and enzymes found in the upper gastrointestinal tract and thus require a truly enteric dosage form. Peptides, RNA-based therapeutics or Live Biotherapeutic Products are prime examples. This ready-to-use capsule will allow the customer to gain time in process development and manufacturing and bring new drug products to market faster.

Our main achievements in 2021 were the introduction of the commercial manufacturing process and machines and the confirmation of in vitro and in vivo enteric performance. The confirmation of the suitability of the capsule was achieved by working closely with lead users. The new capability to further customize the capsule to specific customer needs was another important achievement.



Associates and Joint Ventures

In 2017, Lonza and Sanofi entered into a strategic partnership, to build and operate a mammalian cell culture facility for monoclonal antibody production in Visp (CH). This large-scale commercial facility (20,000L bioreactors) provides a new model for CDMO-sponsor relations. Both companies have 50% of the available capacity, giving them substantial flexibility within the collaboration. The facility was completed and commenced operations in 2021.

In 2019, Lonza and Chr. Hansen established a 50/50 strategic joint venture (JV) for the development and manufacturing of live biotherapeutic products (LBP) for pharma and biotech customers. Operating under the name Bacthera, the JV has offered drug substance and drug product development services for customers developing LBP since the beginning of 2020. The company is located in Hørsholm (DK) and Basel (CH).

In May 2021, both of Bacthera's facilities were [granted manufacturing and GMP licenses](#) by the respective national health authorities. This is a major milestone for the company, as they are now ready to supply customers with LBP for clinical trials in humans and ultimately develop commercial products.

There are currently no commercially available LBP, however, we are supporting a [collaboration](#) between Bacthera and Seres Therapeutics to manufacture SER-109, which has the potential to become the first-ever LBP to be produced commercially.

Under the terms of the agreement, Bacthera will establish a dedicated facility for commercial manufacturing in its new Microbiome Center of Excellence, a manufacturing site dedicated to the production of LBPs located at our Ibex® Solutions campus in Visp. The new facility will enable Bacthera to offer fully integrated end-to-end live biotherapeutic development, clinical trial material manufacturing and commercial manufacturing services and support companies in overcoming challenges and related manufacturing risks.





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Consolidated Balance Sheet

Assets ¹

million CHF	Notes ²	2021	2020
Non-current assets			
Property, plant and equipment	7	4,694	3,591
Intangible assets	6	2,454	2,640
Goodwill	6	2,986	3,072
Other non-current assets	8	352	301
Deferred tax assets	22	18	24
Total non-current assets		10,504	9,628
Current assets			
Inventories	10	1,501	1,136
Trade receivables	11	928	715
Current tax receivables		28	32
Other receivables, prepaid expenses and accrued income, incl. derivatives	12	314	404
Short-term investments	15	1,602	0
Cash and cash equivalents	13	1,582	495
Assets held for sale ³	5.1	0	2,019
Total current assets		5,955	4,801
Total assets		16,459	14,429

¹ At 31 December

² See the accompanying notes to the consolidated financial statements

³ In 2020, assets held for sale related to the Specialty Ingredients disposal group (see [note 5](#)).

Equity and Liabilities ¹

million CHF	Note ²	2021	2020
Equity			
Share capital	26	74	74
Share premium		2,693	2,804
Treasury shares		(177)	(100)
Retained earnings and reserves		7,160	4,037
Total equity attributable to equity holders of the parent		9,750	6,815
Non-controlling interests		73	69
Total equity		9,823	6,884
Liabilities			
Non-current provisions	14	368	90
Employee benefit liabilities	24	97	283
Other non-current liabilities	16	1,027	710
Non-current debt	15	2,234	2,784
Deferred tax liabilities	22	540	581
Total non-current liabilities		4,266	4,448
Current provisions	14	44	67
Other current liabilities	16	1,545	1,212
Trade payables	17	483	308
Current debt	15	169	796
Current tax payables	22	129	159
Liabilities held for sale ³	5.1	0	555
Total current liabilities		2,370	3,097
Total liabilities		6,636	7,545
Total equity and liabilities		16,459	14,429

¹ At 31 December

² See the accompanying notes to the consolidated financial statements

³ In 2020, liabilities held for sale related to the Specialty Ingredients disposal group (see [note 5](#))

Consolidated Income Statement¹

Million CHF	Notes ²	2021	2020	
Sales	3	5,409	4,508	
Cost of goods sold		(3,299)	(2,660)	
Gross profit		2,110	1,848	
Marketing and distribution		(224)	(235)	
Research and development	23	(90)	(84)	
Administration and general overheads ³		(671)	(610)	
Other operating income	20.1	62	42	
Other operating expenses ⁴	20.2	(336)	(60)	
Result from operating activities (EBIT)⁵		851	901	
Financial income	21.1	33	12	
Financial expenses	21.2	(96)	(106)	
Net financial result		(63)	(94)	
Share of loss of associates / joint ventures	9	(28)	(4)	
Profit before income taxes		760	803	
Income taxes	22	(83)	(71)	
Profit from continuing operations		677	732	
Profit from discontinued operations, net of tax ⁶	5.1	2,270	139	
Profit for the period		2,947	871	
Attributable to:				
Equity holders of the parent		2,944	869	
Non-controlling interest		3	2	
Profit for the period		2,947	871	
Earnings per share for profit from continuing operations attributable to equity holders of the parent:				
Basic earnings per share - EPS basic	27	CHF	9.08	9.81
Diluted earnings per share - EPS diluted	27	CHF	9.05	9.77
Earnings per share for profit attributable to equity holders of the parent:				
Basic earnings per share - EPS basic	27	CHF	39.65	11.68
Diluted earnings per share - EPS diluted	27	CHF	39.52	11.63

¹ For the year ended 31 December

² See the accompanying notes to the consolidated financial statements

³ Includes the amortization of acquisition-related intangible assets (2021: CHF 141 million, 2020: CHF 142 million)

⁴ Operating expenses in 2021 include environmental remediation costs of CHF 300 million, predominantly related to Gamsenried (CH) (see [note 14](#))

⁵ Result from operating activities (EBIT) excludes interest income and expenses as well as financial income and expenses that are not interest related (see [note 21](#)) and Lonza's share of profit / loss from associates and joint ventures

⁶ The Specialty Ingredients business was sold effective on 1 July 2021 (see [note 5](#))

Consolidated Statement of Comprehensive Income¹

Million CHF	Notes ²	2021	2020
Profit for the period		2,947	871
Other comprehensive income			
Items that will not be reclassified to profit or loss:			
Remeasurements of net defined benefit liability		247 ³	(32)
Income tax on items that will not be reclassified to profit or loss	22.2	(45)	1
		202	(31)
Items that are or may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations		(68)	(230)
Reclassification of foreign currency differences related to divested businesses	5.1, 5.2	191	0
Cash flow hedges - effective portion of changes in fair value		29	(5)
Cash flow hedges - reclassified to profit or loss		(10)	1
Income tax on items that are or may be reclassified to profit or loss	22.2	(6)	8
		136	(226)
Other comprehensive income for the period, net of tax		338	(257)
Total other comprehensive income for the period		3,285	614
Total comprehensive income attributable to:			
Equity holders of the parent		3,279	614
Non-controlling interests		6	0
Total comprehensive income for the period		3,285	614

¹ For the year ended 31 December
² See the accompanying notes to the consolidated financial statements
³ CHF 169 million relate to continuing operations ([note 24](#)) and CHF 78 million relate to discontinued operations

Consolidated Cash Flow Statement¹

Million CHF	Notes ²	2021	2020
Profit for the period		2,947	871
Adjustments for non-cash items:			
- Income taxes	5,22	125	115
- Net financial result		67	102
- Share of loss of associates / joint ventures	9	28	8
- Depreciation of property, plant and equipment (incl. depreciation of right-of-use assets)	7	347	340
- Amortization of intangibles	6	175	186
- Reversal of impairment	4,7	(8)	(3)
- Impairment losses on property, plant, equipment, intangibles and assets held for sale	4,6,7	1	38
- Impairment losses on capitalized contract assets		0	12
- Increase in provisions	14	309	42
- Increase / (decrease) in employee benefit liability		10	(2)
- Loss on disposal of property, plant and equipment		2	7
- Gain on sale of divested businesses	5.1,5.2	(2,421)	0
- Recycling of accumulated foreign exchange losses related to divested businesses	5.1,5.2	191	(3)
- Amortization of other liabilities / assets		(94)	(47)
- Share-based payments	25	45	48
Income taxes paid		(166)	(150)
Interest paid		(63)	(49)
Total before change in net working capital		1,495	1,515
Increase in inventories		(381)	(129)
Increase in trade receivables		(292)	(167)
Increase / (decrease) in trade payables		213	(38)
(Increase) / decrease other net working capital		300	131
Use of provisions	14	(56)	(52)
Decrease in other payables, net		(62)	(130)
Net cash provided by operating activities		1,217	1,130
Purchase of property, plant and equipment	7	(1,301)	(892)
Purchase of intangible assets	6	(40)	(81)
Acquisitions of subsidiaries, net of cash acquired ³	5.4	(48)	(15)
Divestitures of subsidiaries, net of cash disposed of	5.2	120	7
Purchase of unconsolidated investments		(18)	(32)
Proceeds from unconsolidated investments		11	9
Proceeds from assets held for sale	5.1	3,972	29
Lease payments received / (lease prepayment)		(17)	(20)
Capitalized contract costs		(39)	(17)
Net proceeds from sales and purchases of other assets		(5)	8
Increase in short-term investments	15	(1,602)	0
Increase / (decrease) in loans and advances		(15)	(91)
Interest received		3	5
Dividends received		0	1
Net cash provided by / (used for) investing activities		1,021	(1,089)

Million CHF	Notes ²	2021	2020
Repayment of straight bonds	15	(375)	(150)
Repayment of German private placements	15	(784)	0
Repayment of syndicated loan	15	0	(144)
Issuance / (repayment) of term loan	15	0	(526)
Issuance of straight bonds	15	0	970
Increase / (decrease) in debt	15	(42)	4
Principal elements of lease payments		(30)	(30)
Increase in other non-current liabilities ⁴		347	318
Decrease in other non-current liabilities		0	(2)
Purchase of treasury shares		(174)	(141)
Dividends paid ⁵	27	(225)	(206)
Net cash provided by / (used for) financing activities		(1,283)	93
Effect of currency translation on cash		8	(20)
Net increase in cash and cash equivalents		963	114
Cash and cash equivalents at 1 January		619	505
Cash and cash equivalents at 31 December		1,582	619
Cash and cash equivalents classified as held for sale	5	0	(124)
Cash and cash equivalents at 31 December (as reported)		1,582	495

¹ For the year ended 31 December, the Group has elected to present a statement of cash flows that includes an analysis of all cash flows in total – i.e. including both continuing and discontinued operations. As a consequence, the Group cash flow statement cannot be tied directly to the notes that were prepared on a continuing basis. Amounts related to discontinued operations by operating, investing and financing activities are disclosed in Note 5.1

² See the accompanying notes to the consolidated financial statements

³ Predominantly represent deferred purchase price payments related to the sterile drug product fill & finish business acquired in 2019 (2021: 43 million, 2020: 15 million)

⁴ Lonza received CHF 18 million (2020: CHF 19 million) of funds from customers to purchase equipment for utilization at Lonza facilities. These amounts are not separately disclosed in the consolidated cash flow statement as the related equipment is not owned by Lonza

⁵ Includes dividends of CHF 2 million (2020: CHF 2 million) paid to non-controlling interest shareholders of a subsidiary

Consolidated Statement of Changes in Equity

million CHF	Notes ¹	Attributable to equity holders of the parent						Total	Non-controlling interests	Total equity
		Share capital	Share premium	Retained earnings	Hedging reserve	Translation reserve	Treasury shares			
At 1 January 2020		74	2,906	4,289	(17)	(707)	(51)	6,494	71	6,565
Profit for the period		0	0	869	0	0	0	869	2	871
- Remeasurement of defined benefit liability		0	0	(31)	0	0	0	(31)	0	(31)
- Exchange differences on translating foreign operations		0	0	0	0	(221)	0	(221)	(2)	(223)
- Cash flow hedges		0	0	0	(3)	0	0	(3)	0	(3)
Other comprehensive income, net of tax		0	0	(31)	(3)	(221)	0	(255)	(2)	(257)
Total comprehensive income for the period		0	0	838	(3)	(221)	0	614	0	614
Dividends	27	0	(102)	(102)	0	0	0	(204)	(2)	(206)
Recognition of share-based payments	25	0	0	54	0	0	0	54	0	54
Movements in treasury shares		0	0	(94)	0	0	(49)	(143)	0	(143)
At 31 December 2020		74	2,804	4,985	(20)	(928)	(100)	6,815	69	6,884
Profit for the period		0	0	2,944	0	0	0	2,944	3	2,947
- Remeasurement of defined benefit liability		0	0	202	0	0	0	202	0	202
- Exchange differences on translating foreign operations		0	0	0	0	117	0	117	3	120
- Cash flow hedges		0	0	0	16	0	0	16	0	16
Other comprehensive income, net of tax		0	0	202	16	117	0	335	3	338
Total comprehensive income for the period		0	0	3,146	16	117	0	3,279	6	3,285
Dividends	27	0	(111)	(112)	0	0	0	(223)	(2)	(225)
Recognition of share-based payments	25	0	0	51	0	0	0	51	0	51
Movements in treasury shares		0	0	(95)	0	0	(77)	(172)	0	(172)
At 31 December 2021		74	2,693	7,975	(4)	(811)	(177)	9,750	73	9,823

¹ See the accompanying notes to the consolidated financial statements

Translation reserve

The translation reserve of the consolidated statement of changes in equity comprises all foreign exchange differences arising from the translation of the financial statements of foreign entities including the impact on translating monetary items that form a net investment in a foreign operation.

Notes to the Consolidated Financial Statements

Note 1 Accounting Principles

1.1 Lonza Group

Lonza Group Ltd and its subsidiaries (hereafter «the Group» or «Lonza») operate under the name Lonza. Lonza Group Ltd is a limited liability company incorporated and domiciled in Switzerland. The Group is headquartered in Basel, Switzerland. Lonza is one of the world's leading and most-trusted suppliers to the pharmaceutical, biotech and nutrition markets.

By combining technological insight with world-class manufacturing, scientific expertise and process excellence, Lonza help its customers to deliver new and innovative medicines that help treat a wide range of diseases.

1.2 Basis of Preparation

The consolidated financial statements for 2021 and 2020 are reported in Swiss francs (CHF), rounded to millions, and based on the annual accounts of Lonza Group Ltd (Company) and its subsidiaries at 31 December, which have been drawn up according to uniform Group accounting principles. The consolidated accounts are prepared in accordance with International Financial Reporting Standards (IFRS) and with Swiss law. They are prepared on the historical cost basis, except that money market funds, derivative financial instruments and contingent considerations are stated at their fair values and the employee benefit liability is stated at the fair value of plan assets less the present value of the defined benefit obligation.

Following the Board of Directors' decision on 23 July 2020 to divest the Specialty Ingredients (LSI) segment, a divestment process was initiated in H2 2020. As a consequence, the assets and liabilities related to LSI business were reclassified to assets and liabilities of a disposal group held for sale as from 1 October 2020.

On 8 February 2021, Lonza entered into a definitive agreement with Bain Capital and Cinven to sell Lonza's Specialty Ingredients business and operations. The sale was completed on 1 July 2021 and finally settled before 31 December 2021. In the consolidated financial statements, discontinued operations in both 2021 (six months) and 2020 (twelve months) include the LSI business together with certain corporate costs directly attributable to LSI together with carve-out / divestiture related costs.

1.3 Changes in Accounting Standards

The following new or amended standards became applicable for the current reporting period and did not have any material effect on the Group's financial statements:

- Interest Rate Benchmark Reform – Phase 2: Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16
- Covid-19-Related Rent Concessions beyond 30 June 2021 Amendments to IFRS 16

1.4 Accounting Standards Issued, but Not Yet Effective

The following revised standards have been issued, but are not yet effective. They have not been applied early in these consolidated financial statements.

These amendments are still being evaluated and the Group does not currently expect them to have a significant impact on the consolidated financial statements.

Standard/Interpretation	Effective date
Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)	1 January 2022
Annual Improvements to IFRS Standards 2018–2020	1 January 2022
Property, Plant and Equipment – Proceeds before Intended Use (Amendments to IAS 16)	1 January 2022
Reference to the Conceptual Framework (Amendments to IFRS 3)	1 January 2022
Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)	1 January 2023
Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)	1 January 2023
Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendment to IAS 12)	1 January 2023
Definition of Accounting Estimate (Amendments to IAS 8)	1 January 2023

1.5 Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements represent the accounts for the year ended 31 December of Lonza Group Ltd and its subsidiaries. Subsidiaries are those entities controlled, directly or indirectly, by Lonza Group Ltd. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Changes in ownership interests in subsidiaries are accounted for as equity transactions if they occur after control has already been obtained and if they do not result in a loss of control. The significant subsidiaries included in the consolidated financial statements are shown in note 33.

The full consolidation method is used, whereby the assets, liabilities, income and expenses are incorporated in full, irrespective of the extent of any non-controlling interests. Payables, receivables, income and expenses between Lonza consolidated companies are eliminated. Intercompany profits included in year-end inventories of goods produced within Lonza are eliminated, as well as unrealized gains on transactions between subsidiaries. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

The Group's interests in equity-accounted investees comprise interests in associates and joint ventures, as disclosed in note 9. Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Associates and interests in joint ventures are accounted for in the consolidated financial statements using the equity method of accounting. They are recognized initially at cost, which includes transaction costs.

Subsequent to the initial recognition, the consolidated financial statements include the Group's share of the profit and loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases. Dividends paid during the year reduce the carrying value of the investments.

Segment Reporting

For the purpose of segment reporting, the Group's Executive Committee (EC) is considered to be the Group's Chief Operating Decision Maker. The determination of the Group's operating segments is based on the organizational units for which financial information including dedicated performance measures are reported to the EC on a regular basis. The information provided is used as the basis of the segment revenue and profit disclosures reported in note 2.

Lonza derives revenue in its business models of Contract Development and Manufacturing (including related services and licenses) and sale of products. These business models and the markets Lonza operates in are the basis to disaggregate revenue into categories that depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. Residual operating activities from certain global activities are reported as «Corporate.» These include the EC and global group functions for communications, human resources, finance (including treasury and tax), IT, legal, environmental and safety services. Transfer prices between operating segments are set on an arm's-length basis.

Revenue Recognition

Revenue is measured based on the consideration specified in the contract with a customer and excludes amounts collected on behalf of third parties. Revenues are recognized when a customer obtains control of a good or service and thus has the ability to direct the use and obtain the benefits from the good or service. In the custom manufacturing business, customer agreements may foresee payments at or near inception of contracts, which typically relate to setup efforts (e.g. system preparation, facility modification) for new customer-dedicated production facilities. Such setup efforts typically do not represent separate performance obligations, as no good or service is transferred to the customer. The payments for these setup efforts comprise part of the expected transaction price and are deferred as contract liabilities (non-current deferred income) until performance obligations are satisfied. Product sales are recognized when control of the products has been transferred, i.e. when the products are delivered to the customer, the customer has full discretion over the sales channel and pricing of the products, and there is no unfulfilled obligation that could affect the customer's acceptance of the products. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed, or the Group has objective evidence that all criteria for acceptance have been satisfied. Contracts with customers may include volume discounts based on aggregate sales over a specified period. Revenues from these sales are recognized based on the price specified in the contract, net of the estimated volume discounts.

Accumulated experience is used to estimate and provide for such discounts, using the expected value method, and revenues are only recognized to the extent that it is highly probable that no significant reversal will occur. A contract liability is recognized for expected volume discounts payable to customers in relation to sales made until the end of the reporting period. Revenues from providing services are recognized in the accounting period in which these services are rendered. For most services revenue recognition over time is appropriate. This is done with reference to output (i.e. analysis delivered) to measure the amount of revenue to be recognized. Revenue recognition over time is not applied for customer service contracts where the consideration depends on a defined outcome or result and its achievement cannot be estimated. In this case, revenues are only recognized at the point in time when the service has been completed and accepted by the customer.

Research & Development

Research & development costs are generally charged against income as incurred. Development costs are only capitalized when the related products meet the recognition criteria of an internally generated intangible asset, which mainly require the technical feasibility of completing the intangible asset, the probability of future economic benefits, the reliable measurement of costs and the ability and intention of the Group to use or sell the intangible asset. Fixed assets (buildings, machinery, plant, equipment) used for research purposes are valued similarly to other fixed assets. Such assets are capitalized and depreciated over their estimated useful lives.

Expenses for research & development include associated wages and salaries, material costs, depreciation on fixed assets, as well as overhead costs.

Other Operating Income and Other Operating Expenses

Other operating income and other operating expenses include items not assignable to other functions of the consolidated income statement. They mainly include gains and losses from the disposal of intangible assets, property, plant and equipment and other non-current assets, income and expenses from the release and recognition of provisions, income and expense related to restructuring.

Net Financial Result

Net financial result comprises interest payable on borrowings calculated using the effective interest method, the interest expenses on the net defined-benefit liability, the finance charge for finance leases, dividend income, foreign exchange gains and losses, gains and losses on hedging instruments that are recognized in the income statement and gains/losses on sale of financial assets. Interest income/expense is recognized in the income statement as it accrues, taking into account the effective yield of the asset or liability or an applicable floating rate. Dividend income is recognized in the income statement on the date that the dividend is declared. Interest income and expense include the amortization of any discount or premium or other differences between the initial carrying amount of an

interest-bearing instrument and its amount at maturity calculated on an effective interest rate basis.

Foreign Currencies

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in Swiss francs (CHF), which is the Group's presentation currency. For consolidation purposes the balance sheet of foreign consolidated companies is translated to CHF with the exchange rate on the balance sheet date. Income, expenses and cash flows of the foreign consolidated companies are translated into CHF using the monthly average exchange rates during the year (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions). Exchange rate differences arising from the different exchange rates applied in balance sheets and income statements are recognized in other comprehensive income. In the individual company's financial statements, transactions in foreign currencies are translated at the foreign exchange rate applicable at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated at the foreign exchange rate ruling at that date. All resulting foreign exchange gains and losses are recognized in the individual company's profit or loss statement, except when they arise on monetary items that form a part of the Group's net investment in a foreign entity. In such a case, the exchange gains and losses are recognized in other comprehensive income.

Hedge Accounting

The Group uses derivatives to manage its exposures to foreign currency and interest rate risks. The instruments used may include interest rate swaps, forward exchange contracts, FX swaps and options. The Group generally limits the use of hedge accounting to certain significant transactions. At inception of designated hedging relationships, the Group documents the risk management objective and strategy for undertaking the hedge. The Group also documents the economic relationship between the hedged item and the hedging instrument, including whether the changes in cash flows of the hedged item and hedging instrument are expected to offset each other.

Cash Flow Hedging

This is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction and could affect profit or loss. The hedging instrument is recorded at fair value. The effective portion of the hedge is included in other comprehensive income and any ineffective portion is reported in other operating income/expenses (instruments to manage the foreign currency exposure related to sales or purchases) or financial income/expenses (foreign currency exposure related to debt repayment or interest exposure on the Group's debt). If the hedging relationship is the hedge of the foreign currency risk of a firm commitment or highly

probable forecasted transaction that results in the recognition of a non-financial item, the cumulative changes in the fair value of the hedging instrument that have been recorded in other comprehensive income are included in the initial carrying value of the non-financial item at the date of recognition. For all other cash flow hedges, the cumulative changes in the fair value of the hedging instrument that have been recorded in other comprehensive income are included in the cost of goods sold, other operational income/expenses or other financial income/expense (based on the principles explained above) when the forecasted transaction affects net income.

Fair Value Hedging

This is a hedge of the exposure to changes in fair value of a recognized asset or liability, or an unrecognized firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss. The hedging instrument is recorded at fair value and the hedged item is recorded at its previous carrying value, adjusted for any changes in fair value that are attributable to the hedged risk. Changes in the fair values are reported in other operating income/expenses (instruments to manage the foreign currency exposure related to sales or purchases) or financial income/expenses (foreign currency exposure related to debt repayment or interest exposure on the Group's debt).

Capitalized Contract Costs

The Group recognizes contract assets mainly consisting of contract fulfilment costs that are incurred after a contract is obtained but before goods or services have been delivered to the customer. These costs arise from long-term contracts in the custom manufacturing business for customer specific production facility expansions or modifications on Lonza's premises. They typically include costs for commissioning, qualification and start-up, as well as for activities relating to process development and technology transfer.

Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. The assets are depreciated on a component basis over their estimated useful lives, which vary from 10 to 50 years for buildings and structures, and 5 to 16 years for production facilities, machinery, plant, equipment and vehicles. Fixed assets are depreciated using the straight-line method over their estimated useful lives. Subsequent expenditure incurred to replace a component of an item of property, plant and equipment that is accounted for separately, including major inspection and overhaul expenditure, is capitalized. Other subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the item of property, plant and equipment. Borrowing costs incurred with respect to qualifying assets are capitalized and included in the carrying value of the assets. All other expenditure is recognized in the income statement as an expense as incurred. The residual values and the useful life of items of property, plant and equipment are reviewed and adjusted, if appropriate, at each balance sheet date.

Leases

The Group assesses at contract inception whether a contract is, or contains, a lease. That is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Lonza applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. Lonza recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, restoration costs and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets. If ownership of the leased asset transfers to Lonza at the end of the lease term or the cost of the right-of-use asset reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

Lease liabilities are initially measured at the present value of the lease payments, considering fixed payments (including in-substance fixed payments), variable lease payments that are based on an index or a rate, amounts expected to be payable by the lessee under residual value guarantees, the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option, less any lease incentives receivable.

Extension and termination options are included in a number of property and equipment leases across the Group. These terms are used to maximize operational flexibility in terms of managing contracts. In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated). The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor. This assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and that is within the control of the lessee.

In calculating the present value of lease payments, Lonza uses its incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. The incremental borrowing rate is derived from market information, the weighted average duration of the lease and the underlying specifics of the leased asset. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made.

Lonza applies the short-term lease recognition exemption to its short-term leases (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of other movables that are considered to be of low value. Lease payments on short-term leases and leases of low value assets are recognized as expense on a straight-line basis over the lease term.

In some circumstances, Lonza could act as a lessor. In case of a sublease, Lonza would account for the head lease and the sublease as two separate contracts. The sublease will be classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

Intangible Assets

Purchased intangible assets with a finite useful life are stated at cost less accumulated amortization and accumulated impairment losses. Intangible assets acquired in a business combination are recognized at their fair value. Intangibles include software, licenses, patents, trademarks and similar rights granted by third parties, capitalized product development costs and capitalized computer software development costs. Costs associated with internally developed or maintained computer software programs are recognized as an expense as incurred. Costs that are directly associated with the production of identifiable and unique software products controlled by the Group, and that will probably generate future economic benefits exceeding costs beyond one year, are recognized as intangible assets. Those direct costs include the software development employee costs and an appropriate portion of relevant overheads. Intangible assets are amortized using the straight-line method over their estimated useful lives, which is the lower of the legal duration and the economic useful life. Useful lives vary from 3 to 6 years for software, 5 to 35 years for patents, trademarks and similar rights and 4 to 16 years for development costs. All intangible assets in Lonza have finite useful lives, except for the Capsugel trade name acquired in 2017 and the trademarks acquired in 2007 through the Cambrex business combination. The Group considers that these trademarks have an indefinite useful life as they are well established in the respective markets and have a history of strong performance. The Group intends and has the ability to maintain these trademarks for the foreseeable future.

Goodwill and Business Combinations

Business combinations are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value at the date of acquisition and includes the cash paid plus the fair value at the date of exchange of assets, liabilities incurred or assumed and equity instruments issued by the Group. The fair value of the consideration transferred also includes contingent consideration arrangements at fair value. Directly attributable acquisition-related costs are expensed in the period the costs are incurred and the services are received and reported within administration and general overhead expenses. At the date of acquisition, the Group recognizes the identifiable assets acquired, the liabilities assumed and

any non-controlling interest in the acquired business. The identifiable assets acquired and the liabilities assumed are initially recognized at fair value. Where the Group does not acquire 100% ownership of the acquired business, non-controlling interests are recorded as the proportion of the fair value of the acquired net assets attributable to the non-controlling interest. Goodwill is recorded as the surplus of the consideration transferred over the Group's interest in the fair value of the acquired net assets. Any goodwill and fair value adjustments are recorded as assets/liabilities of the acquired business in the functional currency of that business.

When the initial accounting for a business combination is incomplete at the end of a reporting period, provisional amounts are recognized. During the measurement period, the provisional amounts are retrospectively adjusted and additional assets and liabilities may be recognized to reflect new information obtained about the facts and circumstances that existed at the acquisition date which, had they been known, would have affected the measurement of the amounts recognized at that date. The measurement period does not exceed 12 months from the date of acquisition. Goodwill is not amortized but is tested annually for impairment. Changes in ownership interests in subsidiaries are accounted for as equity transactions if they occur after control has already been obtained and if they do not result in a loss of control. Goodwill may also arise upon investments in associates and joint ventures, being the surplus of the cost of investment over the Group's share of the fair value of the net identifiable assets. Such goodwill is recorded within investments in associates and joint ventures.

Inventories

Inventories are reported at the lower of cost (purchase price or production cost) or market value (net realizable value). In determining net realizable value, any costs of completion and selling costs are deducted from the realizable value. The cost of inventories is calculated using the weighted average method. Prorated production overheads are included in the valuation of inventories. Adjustments are made for inventories with a lower market value or which are slow moving. Unsalable inventory is fully written off. Costs include all expenditures related directly to specific projects and an allocation of fixed and variable overheads incurred in the Group's contract activities based on normal operating capacity.

Receivables

Receivables are carried at the original invoice amount less allowances made for doubtful accounts, volume rebates and similar allowances. A receivable represents a right to consideration that is unconditional and excludes contract assets. An allowance for doubtful accounts is recorded for expected credit losses over the term of the receivables. These estimates are based on specific indicators, such as the ageing of customer balances and specific credit circumstances. Expenses for doubtful trade receivables are recognized within the cost of goods sold. Volume rebates and similar allowances are recorded on an accrual basis consistent with the recognition of the related

sales, using estimates based on existing contractual obligations, historical trends and the Group's experience. Receivables are written off (either partly or in full) when there is no reasonable expectation of recovery.

For trade receivables, the Group applies the simplified approach prescribed by IFRS 9, which requires/permits the use of the lifetime expected loss provision from initial recognition of the receivables. The Group measures an allowance for doubtful accounts equal to the credit losses expected over the lifetime of the trade receivables.

Financial Instruments

The Group has classified its financial assets in the following measurement categories, which are disclosed in note 29: amortized cost or fair value through profit or loss (including hedging instruments). At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Amortized Cost

Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost, less provision for impairment. Interest income from these financial assets is included in other financial income using the effective interest rate method. The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all the risk and rewards of ownership of the financial asset are transferred. Any interest in such transferred financial assets that is created or retained by the Group is recognized as a separate asset or liability. Assets at amortized cost are mainly comprised of time deposits with an original maturity of more than 3 months, accounts receivable, cash and cash equivalents and loans and advances.

Equity Investments at Fair Value Through Profit or Loss

These are equity investments in quoted and non-quoted companies that are kept for strategic reasons and in investment vehicles that invest in the Group's target markets. These assets are subsequently measured at fair value. Dividends are recognized as financial income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized as a financial income or a financial expense in the income statement.

Fair Value Through Profit or Loss

These are primarily money market funds as well as contingent consideration assets (and liabilities) that are initially recorded at costs and subsequently carried at fair value with changes in fair value recorded as a financial income or a financial expense in the income statement.

Fair Value Through Profit or Loss – Hedging Instruments

These are derivative financial instruments that are used to manage the exposures to foreign currency and interest rates. These instruments are initially recorded and subsequently carried at fair value. Apart from those derivatives designated as qualifying cash flow hedging instruments, all changes in fair value are recorded as other operating income/expenses (instruments to manage the foreign currency exposure related to sales or purchases) or financial income/expenses (foreign currency exposure related to debt repayment or interest exposure on the Group's debt).

Debt Instruments

These are initially recorded at cost, which is the proceeds received net of transaction costs. They are subsequently stated at amortized cost; any difference between the net proceeds and the redemption value is recognized in the income statement over the period of the debt instrument using the effective interest method.

Cash and Cash Equivalents

Cash and cash equivalents include cash in hand, in postal and bank accounts, as well as short-term deposits and highly liquid funds that have an original maturity of less than three months.

Impairment

Assets that are subject to amortization and depreciation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Goodwill and intangible assets with indefinite useful lives are tested for impairment annually, and whenever there is an indication that the assets may be impaired. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less cost of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

Calculation of recoverable amount – in assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Reversal of impairment – an impairment loss is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognized. An impairment loss in respect of goodwill is not reversed. In respect of other assets, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Assets Held for Sale and Discontinued Operations

Disposal groups comprising assets and liabilities are classified as held-for-sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use.

Such disposal groups are generally measured at the lower of their carrying amount and fair value less cost to sell. Any impairment loss on a disposal group is allocated first to goodwill and then to the remaining assets and liabilities on a pro rata bases, except that no loss is allocated to inventories, financial assets or deferred tax assets, which continue to be recognized in accordance with the Group's other accounting policies. Impairment losses on initial classification as held-for-sale and subsequent gains and losses on remeasurement are recognized in profit or loss. Once classified as held-for-sale, intangible assets and property, plant and equipment are no longer amortized or depreciated. A discontinued operation is a component of the entity that has been disposed of or is classified as held for sale and that represents a separate major line of business or geographical area of operations or is part of a single coordinated plan to dispose of such a line of business or area of operations. Classification as a discontinued operations occurs at the earlier of disposal or when the operation meets the criteria to be classified as held-for-sale.

The income statement activity of the discontinued operations is presented separately in the consolidated income statement. The comparative consolidated income statement and consolidated statement of comprehensive income are restated to show the discontinued operations separately from continuing operations. Balance sheet and cash flow information related to discontinued operations are disclosed separately in the notes.

Deferred Taxes

Tax expense is calculated using the balance-sheet liability method. Additional deferred taxes are provided wherever temporary differences exist between the tax base of an asset or liability and its carrying amount in the consolidated accounts for the year.

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and, for deferred tax assets, operating loss and tax credit carry-forwards.

Deferred tax assets and liabilities are measured using enacted or substantially enacted tax rates in the respective jurisdictions in which Lonza operates that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. In assessing the recoverability of deferred tax assets, management considers whether it is probable that some portion or all of the deferred tax assets will not be realized. For transactions and other events recognized in other comprehensive income or directly in equity, any related tax effect is recognized in other comprehensive income or in equity.

Liabilities for income taxes, mainly withholding taxes, which could arise on the remittance of retained earnings, principally relating to subsidiaries, are only recognized where it is probable that such earnings will be remitted in the foreseeable future.

Employee Benefits

Employee-benefit liabilities as stated in the consolidated balance sheet include obligations from defined-benefit pension plans, other post-employment benefits (medical plans) as well as other long-term employee-related liabilities, such as long-term vacation accounts.

Defined-Benefit Plans (Pension Plans)

Most of Lonza's subsidiaries operate their own pension plans. Generally, they are funded by employees' and employers' contributions. In addition, the Group operates three medical plans in the United States. The Group's net obligation in respect of defined-benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets. The calculation of defined-benefit obligations is performed annually by a qualified external actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements. Remeasurements of the defined-benefit liability, which comprise actuarial gains and losses and the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income.

The Group determines the net interest expense on the net defined-benefit liabilities for the period by applying the discount rate used to measure the defined-benefit obligation at the beginning of the annual period to the net defined-benefit liability, taking into account any changes in the net defined-benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined-benefit plans are recognized in profit or loss. While the net interest expense is disclosed within financial expenses, the other expenses related to defined-benefit plans are allocated to the different functions of the operating activities. When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that related to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined-benefit plan when the settlement occurs.

Provisions

A provision is recognized in the balance sheet when (i) the Group has a legal or constructive obligation as a result of a past event, (ii) it is probable that an outflow of economic benefits will be required to settle the obligation, and (iii) a reliable estimate of the amount of the obligation can be made. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. A provision for restructuring is recognized when the Group has approved a detailed and formal restructuring plan, and the restructuring has either commenced or been announced publicly. Future operating costs are not provided for.

Provisions for environmental liabilities are made when there is a legal or constructive obligation for the Group that will result in an outflow of economic resources. Provisions are made for remedial work where there is an obligation to remedy environmental damage, as well as for containment work where required by environmental regulations.

Share Capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Where any Group company purchases Lonza Group Ltd's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs (net of income taxes), is deducted from equity attributable to the Group's equity holders until the shares are cancelled, reissued or disposed of.

Dividend

Dividend distribution to Lonza's shareholders is recognized as a liability in the Group's financial statements in the period in which the dividends are approved by the Lonza shareholders.

Share-Based Compensation

The Group operates various equity-settled, share-based compensation plans. The fair value of the employee services received in exchange for the grant of shares and other share-based compensations is recognized as an expense. The total amount to be expensed over the vesting period is determined by reference to the fair value of the shares granted. At each balance sheet date, the entity revises its estimates of the number of shares that are expected to become vested. It recognizes the impact of the revision of original estimates, if any, in the income statement, and a corresponding adjustment to equity over the remaining vesting period.

1.6 Significant Accounting Estimates and Judgments

Key Assumptions and Sources of Estimation Uncertainty

Use of Estimates

The preparation of the financial statements and related disclosures in conformity with International Financial Reporting Standards (IFRS) requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses. Actual results could differ from those estimates. Estimates are used in impairment tests, accounting for allowances for doubtful receivables, inventory obsolescence, depreciation, employee benefits, taxes, environmental provisions and contingencies. Estimates and assumptions are reviewed periodically and the effects of revisions are reflected in the financial statements in the period they are determined to be necessary. The key assumptions about the future key sources of estimation uncertainty that entail a significant risk of causing a material adjustment to the carrying value of assets and liabilities within the next financial year are described below.

Impairment Test of Property, Plant and Equipment, Intangible Assets and Goodwill

The Group has carrying values with regard to property, plant and equipment of CHF 4,320 million (2020: CHF 3,369 million), goodwill of CHF 2,986 million (2020: CHF 3,072 million) and intangible assets of CHF 2,454 million (2020: CHF 2,640 million) (see [notes 6 and 7](#)). The intangible assets include trademarks acquired through business combinations with a carrying value of CHF 252 million (2020: CHF 261 million), which have an indefinite useful life and are not systematically amortized. Goodwill and intangible assets with indefinite useful lives are reviewed annually for impairment. To assess if any impairment exists, estimates are made of the future cash flows expected to result from the use of the asset and its possible disposal. Actual outcomes could vary significantly from such estimates of discounted future cash flows. Factors such as changes in the planned use of buildings, machinery or equipment, or closure of facilities, the presence or absence of competition, technical obsolescence or lower-than-anticipated sales of products with capitalized rights could result in shortened useful lives or impairment. The impairment analysis as explained in note 6 is sensitive to the discount rate used for the discounted cash flow model, as well as the expected future cash-inflows and the growth rate used for calculation purposes. The key assumptions used to determine the recoverable amount for the different cash-generating units are further explained in note 6.2.

Pensions

Many of the Group's employees participate in post-employment plans. The calculations of the recognized assets and liabilities from such plans are based upon statistical and actuarial calculations. In particular, the present value of the defined-benefit obligation is influenced by assumptions on discount rates used to arrive at the present value of future pension liabilities and assumptions on future increases in salaries and benefits.

Furthermore, the Group's independent external actuaries use statistically based assumptions, covering areas such as future withdrawals of participants from the plan and estimates of life expectancy. At 31 December 2021, the present value of the Group's defined-benefit obligation was CHF 2,265 million (2020: CHF 2,218 million). The plan assets at fair value amounted to CHF 2,171 million (2020: CHF 1,940 million), resulting, compared with the present value of the pension obligation, in a funded status deficit of CHF 94 million (2020: CHF 278 million) (see [note 24](#)). The actuarial assumptions used may differ materially from actual results due to changes in market and economic conditions, higher or lower withdrawal rates or longer or shorter lifespans of participants and other changes in the factors being assessed. These differences could affect the fair value of assets or liabilities recognized in the balance sheet in future periods.

Environmental Provisions

Lonza is exposed to environmental liabilities and risks relating to its operations, principally in respect of provisions for remediation costs, which at 31 December 2021 amounted to CHF 394 million (2020: CHF 113 million), as disclosed in note 14. Provisions for non-recurring remediation costs are made when there is a legal or constructive obligation and the cost can be reliably estimated. It is difficult to estimate any future action required by Lonza to correct the effects on the environment of prior disposal or release of chemical substances by Lonza or other parties, and the associated costs, pursuant to environmental laws and regulations. The material components of the environmental provisions consist of costs to clean and refurbish contaminated sites and to treat and contain contamination at sites. The Group's future remediation expenses are affected by a number of uncertainties that include, but are not limited to, the method and extent of remediation and the responsibility attributable to Lonza at the remediation sites, relative to that attributable to other parties. The Group permanently monitors the various sites identified as at risk for environmental exposures. Lonza believes that its provisions are adequate, based upon currently available information; however, given the inherent difficulties in estimating liabilities in this area, there is no guarantee that additional costs will not be incurred beyond the amounts provided. Due to the uncertainty of both the amount and timing of future expenses, the provisions provided for environmental remediation costs could be affected in future periods.

Income Taxes

At 31 December 2021, deferred tax assets of CHF 18 million (2020: CHF 24 million), current tax receivables of CHF 28 million (2020: CHF 32 million), deferred tax liabilities of CHF 540 million (2020: CHF 581 million) and current tax payables of CHF 129 million (2020: CHF 159 million) are included in the consolidated balance sheet. Significant estimates are required in determining the current and deferred assets and liabilities for income taxes. Certain of these estimates are based on interpretations of existing tax laws or regulations.

Lonza operates in numerous tax jurisdictions and, as a result, is regularly subject to audit by tax authorities. Lonza provides for income tax-related uncertainties whenever it is deemed more likely than not that a tax position may not be sustained on audit, including resolution of related appeals or litigation processes, if any. The provisions are recorded based on the technical merits of a filing position, considering the applicable tax regulations and are based on Lonza's evaluations of the facts and circumstances as of the end of each reporting period.

Management believes that the estimates are reasonable and that the recognized liabilities for income tax-related uncertainties are adequate. Various internal and external factors may have favorable or unfavorable effects on the actual amounts of estimated income tax assets and liabilities. These factors include, but are not limited to, changes in tax laws, regulations and/or rates, changing interpretations of existing tax laws or regulations and changes in overall levels of pre-tax earnings. Such changes that arise could affect the assets and liabilities recognized in the balance sheet in future periods. Such changes in the facts and circumstances could affect the assets and liabilities recognized in the balance sheet in future periods.

Critical Accounting Judgments in Applying the Group's Accounting Policies

In the process of applying the Group's accounting policies, management has made the following judgments that have the most significant effect on the amounts recognized in the financial statements (apart from those involving estimations, which are dealt with above).

Revenue Recognition

The Group has recognized revenues for sales of goods during the year to customers who have the right to rescind the sale if the goods do not meet the agreed quality. The Group believes that, based on past experience with similar transactions, the quality delivered will be accepted. Therefore, it is appropriate to recognize revenue on these transactions in the reporting period.

Revenues are recognized only when, according to management's judgment, performance obligations are satisfied, control over the assets have been transferred to the customer and no future performance obligation exists. For certain transactions, recognition of revenues is based on the performance of the conditions agreed in particular contracts, the verification of which requires evaluation and judgments by management.

The Group is required to determine the transaction price in respect of each of its contracts with customers. In making such judgment, the Group assesses the impact of any variable consideration in the contract, due to potential refunds, contractual price changes, batch success fees, estimated breakage, discounts or penalties, additional commission paid by distributors, profit sharing and the existence of any significant financing components. In determining the impact of variable consideration the Group uses accumulated experience to estimate the impact of variable consideration.

The Group has various contractual agreements that contain several components promised to the customer. As these contracts may include multiple performance obligations, the transaction price must be allocated to the performance obligations on a relative stand-alone selling price basis. Management estimates the stand-alone selling price at contract inception based on observable prices of the type of product likely to be provided and the services rendered in similar circumstances to similar customers. If a discount is granted, it is allocated to both performance obligations based on their relative stand-alone selling prices. Contractually agreed upfront or other one-time payments are allocated to the performance obligation to which they relate.

Intangible Assets

The Group considers the Capsugel trade name acquired through the business combination in 2017, as well as the trademarks acquired in 2007 through the Cambrex business combination, to have indefinite useful lives, as they are well established in the respective markets and have a history of strong performance.

The Group intends, and has the ability, to maintain these trademarks for the foreseeable future. The assumption of an indefinite useful life is reassessed whenever there is an indication that a trademark may have a definite useful life. In addition, intangible assets with indefinite useful lives are tested for impairment on an annual basis (see [note 6](#)).

Note 2

Operating Segments

2.1 General Information

On 15 October 2020, Lonza published its new divisional structure of its continuing operations as per 1 January 2021. The transformations of the LPBN operations into four new divisions strengthens Lonza's offering in translation of technology and knowhow from pharma to nutrition, including regulatory and scientific expertise.

Following the requirements of IFRS 8 "Operating Segments", the Group's reportable segments/divisions are described below and accordingly, prior year segment information was restated to conform with the current year presentation:

Biologics

The Biologics division is a leading contract development and manufacturing partner for biopharmaceuticals, serving customers for all clinical and commercial manufacturing needs throughout the product lifecycle, including drug substance and drug product manufacturing. The modalities across Biologics include mammalian and microbial expression systems, bioconjugates, and mRNA. The end-to-end service is complemented by Drug Product Services capabilities.

Small Molecules

The Small Molecules division operates as an integrated development and manufacturing service provider for small molecule drug substances and their intermediates. Small Molecules supports customers across all aspects of design, development and manufacturing, with the ability to offer integrated drug substances to drug product solutions, including particle engineering and drug product packaging.

Cell & Gene

The Cell & Gene division operates two businesses including Cell and Gene Technologies and Bioscience.

The Cell & Gene Technologies (CGT) business develops innovative technologies and platforms that industrialize the manufacturing processes and production of cell and gene therapies. CGT provides contract development and manufacturing services along with regulatory support for a wide range of allogeneic and autologous cell therapies and exosome-based therapies, as well as viral vector gene therapies.

Bioscience is a market-leading provider of specialty raw materials and enabling technology solutions in core target markets including cell and gene therapy, injectable drugs, vaccines and bio-manufacturing.

Capsules & Health Ingredients

The Capsules & Health Ingredients business is a trusted partner in innovative capsules, dosage form solutions and health ingredients for pharmaceutical and nutraceutical companies.

Corporate

Corporate includes mainly corporate functions, such as finance and accounting, legal, communication, information technology and human resources.

2.2 Information about Reportable Segment Profit or Loss, Assets and Liabilities including Reconciliations

In the following table, revenues and profit or loss are disclosed by the four reportable segments and corporate, which include the costs of the corporate functions, including eliminations, and adds up to the Group total. Lonza does not allocate financial

result, income and expenses from associates and joint ventures as well as taxes to the reportable segments. The information disclosed by the operating segments is the same as that reported monthly to the Group's Executive Committee.

Year ended

31 December 2021

million CHF	Biologics	Small Molecules	Cell & Gene	Capsules & Health Ingredients	Total operating segments	Corporate / Eliminations	Group total
Sales third-party	2,699	767	602	1,204	5,272	137 ²	5,409
Intersegment sales ¹	26	6	47	16	95	(95)	0
Total sales	2,725	773	649	1,220	5,367	42	5,409
CORE EBITDA²	979	215	106	414	1,714	(49)	1,665
- Percentage return on sales in %	36.3	28.0	17.6	34.4	32.5	n.a.	30.8
included in results from operating activities:							
Research and development	(119)	(19)	(31)	(12)	(181)	0	(181)
Depreciation and amortization	(171)	(56)	(51)	(178)	(456)	(65)	(521)
Impairment, net of reversal of impairment	0	0	0	0	0	8	8
Restructuring income / (expense)	6	0	0	1	7	(1)	6
Environmental expenses	0	0	0	0	0	(304)	(304)
Other segment information:							
Additions to property, plant and equipment	920	118	84	83	1,205	53	1,258
Additions to property, plant and equipment from acquisitions	0	0	8	0	8	0	8
Additions to intangible assets	12	0	2	5	19	21	40
Additions to goodwill and intangible assets from acquisitions	0	0	53	0	53	0	53
Additions to investment in associates / joint ventures	0	0	0	3	3	0	3

¹ Intersegment sales were based on prevailing market prices

² Refer to section "Alternative Performance Measures" for details on the calculation methodology

³ In 2021, sales third parties at Corporate include CHF 84 million of sales to the LSI business (that was divested on 1 July 2021) during the second half of 2021. These sales had a dilutive effect of 50 bps on the group margin for the year

The reconciliation of the CORE EBITDA to the IFRS result for the twelve months ended 31 December in 2021 and 2020 is as follows:

million CHF	2021	2020 ²
CORE EBITDA (from continuing operations)	1,665	1,379
Environmental-related expenses	(300)	(8)
Income / (expense) resulting from acquisition and divestitures	0	7
Depreciation & amortization of property, plant and equipment and intangibles, incl. impairment and reversal of impairments	(514)	(477)
Result from operating activities (EBIT)¹ (from continuing operations)	851	901
Net financial result	(63)	(94)
Share of loss from associates/joint ventures	(28)	(4)
Profit before income taxes from continuing operations	760	803

¹ Result from operating activities (EBIT) excludes interest income and expenses as well as financial income and expenses that are not interest related and Lonza's share of profit/loss from associates and joint ventures

² CORE results for the Full-Year 2020 were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021. Refer to section "Alternative Performance Measures"

Year ended

31 December 2020 (restated)

million CHF	Biologics	Small Molecules	Cell & Gene	Capsules & Health Ingredients	Total operating segments	Corporate / Eliminations	Group total
Sales third-party	2,146	692	481	1,153	4,472	36	4,508
Intersegment sales ¹	4	20	27	6	57	(57)	0
Total sales	2,150	712	508	1,159	4,529	(21)	4,508
CORE EBITDA²	831	192	13	378	1,414	(35)	1,379
- Percentage return on sales in %	38.7	27.7	2.7	32.8	31.6	n.a.	30.6
included in results from operating activities:							
Research and development	(97)	(18)	(24)	(14)	(153)	(1)	(154)
Depreciation and amortization	(114)	(59)	(50)	(183)	(406)	(47)	(453)
Impairment, net of reversal of impairment	(12)	0	(3)	0	(15)	(20)	(35)
Restructuring expenses	(7)	1	(1)	(14)	(21)	(1)	(22)
Environmental expenses	0	0	0	0	0	(11)	(11)
Other segment information:							
Additions to property, plant and equipment	633	67	54	55	809	51	860
Additions to intangible assets	4	0	1	7	12	17	29
Additions to investment in associates / joint ventures	0	0	0	6	6	0	6

¹ Intersegment sales were based on prevailing market prices² Refer to section "Alternative Performance Measures" for details on the calculation methodology

2.3 Measurement of Operating Segment Profit or Loss

The accounting principles applied to the operating segments are based on the same accounting principles used for the consolidated financial statements. Lonza evaluates the performance of its operating segments on the basis of the result from operating activities (EBIT) as well as the CORE result from operating activities.

2.4 Geographical Information

Year ended
31 December 2021

million CHF	Revenue from external customers (sales) ¹	Property, plant and equipment	Intangible assets	Goodwill	Other non-current assets	Total non-current assets ²
Belgium	202	98	1,214	2,446	35	3,793
Czech Republic	7	0	0	0	0	0
Denmark	131	5	0	10	0	15
France	97	57	81	9	1	148
Germany	201	5	16	60	0	81
Ireland	399	0	0	0	0	0
Italy	38	0	0	2	0	2
Netherlands	76	57	0	29	6	92
Spain	44	121	1	0	0	122
Sweden	142	0	0	0	0	0
Switzerland	656	2,210	113	63	263	2,649
United Kingdom	170	152	2	8	0	162
Rest of Europe	218	0	0	0	1	1
Europe	2,381	2,705	1,427	2,627	306	7,065
Canada	82	3	134	23	0	160
Mexico	30	13	20	0	0	33
United States	2,117	1,329	643	333	41	2,346
Rest of North and Central America	1	1	0	0	0	1
North and Central America	2,230	1,346	797	356	41	2,540
Brazil	60	0	11	0	0	11
Rest of Latin America	47	0	0	0	0	0
Latin America	107	0	11	0	0	11
China	143	337	74	0	0	411
India	40	18	22	2	1	43
Indonesia	18	22	14	0	0	36
Japan	206	37	37	0	3	77
Singapore	139	225	36	0	0	261
South Korea	79	0	0	0	0	0
Thailand	17	0	27	0	0	27
Rest of Asia	31	4	2	0	0	6
Asia	673	643	212	2	4	861
Australia & New Zealand	17	0	7	1	0	8
Other countries	1	0	0	0	1	1
Total	5,409	4,694	2,454	2,986	352	10,486

¹ Revenue from external customers (sales) based on the geographic location of the customers

² Total non-current assets excludes deferred tax assets

Year ended
31 December 2020 (restated)

million CHF	Revenue from external customers (sales) ¹	Property, plant and equipment	Intangible assets	Goodwill	Other non-current assets	Total non-current assets ²
Belgium	366	87	1,347	2,557	29	4,020
Czech Republic	3	0	0	0	0	0
Denmark	106	5	0	10	0	15
France	207	82	130	10	2	224
Germany	87	5	19	63	0	87
Ireland	259	0	0	0	0	0
Italy	9	0	0	0	0	0
Netherlands	28	39	0	30	1	70
Spain	3	122	1	0	0	123
Sweden	151	0	0	0	0	0
Switzerland	394	1,483	110	63	250	1,906
United Kingdom	143	132	20	8	0	160
Rest of Europe	46	0	0	0	0	0
Europe	1,802	1,955	1,627	2,741	282	6,605
Canada	52	2	139	22	0	163
Mexico	27	10	22	0	0	32
United States	2,048	1,174	618	306	14	2,112
Rest of North and Central America	10	3	0	0	0	3
North and Central America	2,137	1,189	778	328	14	2,309
Brazil	32	0	11	0	0	11
Rest of Latin America	11	0	0	0	0	0
Latin America	43	0	11	0	0	11
China	85	160	72	0	1	233
India	30	16	23	2	1	42
Indonesia	26	20	14	0	0	34
Japan	145	41	41	0	3	85
Singapore	75	207	36	0	0	243
South Korea	101	0	0	0	0	0
Thailand	27	0	30	0	0	30
Rest of Asia	22	3	0	0	0	3
Asia	511	447	216	2	5	670
Australia & New Zealand	14	0	8	1	0	9
Other countries	0	0	0	0	0	0
Total	4,508	3,591	2,640	3,072	301	9,604

¹ Revenue from external customers (sales) based on the geographic location of the customers

² Total non-current assets excludes deferred tax assets

2.5 Information about Major Customers

In 2021, Lonza's largest customer accounted for 7.8% and the second, third, fourth and fifth largest customers for 6.4%, 5.7%, 5.3% and 3.1% in relation to total Group sales, respectively. No other customer accounted for 2.9% or more of Lonza's total sales.

In 2020, Lonza's largest customer accounted for 4.7% and the second, third, fourth and fifth largest customers for 4.4%, 4.4%, 3.7% and 2.3% in relation to total Group sales, respectively. No other customer accounted for 2.0% or more of Lonza's total sales.

Note 3

Revenues

3.1 Disaggregation of Third-Party Revenues

Lonza derives revenue in its business models of Contract Development and Manufacturing (including related services and licenses) and sale of products. These business models and the markets Lonza operates in are the basis to disaggregate revenue into categories that depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

The Group derives its revenues primarily from long-term supply agreements with customers across the pharma, biotech and nutrition markets. Through its operating segments, Lonza typically provide products and manufacturing services, from research to commercial supply. Lonza supports customers' research activities as well as the whole life cycle of a customer product from development of a drug substance to commercial supply. Lonza concluded that the revenues of the operating segments shall not be further disaggregated. Each segment focuses on different modalities and markets:

- **Biologics** is the leading contract development and manufacturing partner for biopharmaceuticals, serving customers for all clinical and commercial manufacturing needs throughout the product lifecycle, including drug substance and drug product manufacturing. The modalities across Biologics include mammalian and microbial expression systems, bioconjugates, and mRNA. The end-to-end service is complemented by Drug Product Services capabilities.

- **Small Molecules** operates as an integrated development and manufacturing service provider for small molecule drug substances and their intermediates. Small Molecules supports customers across all aspects of design, development and manufacturing, with the ability to offer integrated drug substances to drug product solutions, including particle engineering and drug product packaging.

- **Cell & Gene** division operates two businesses including Cell and Gene Technologies and Bioscience.

The Cell & Gene Technologies (CGT) business develops innovative technologies and platforms that industrialize the manufacturing processes and production of cell and gene therapies. CGT provides contract development and manufacturing services along with regulatory support for a wide range of allogeneic and autologous cell therapies and exosome-based therapies, as well as viral vector gene therapies.

Bioscience is a market-leading provider of specialty raw materials and enabling technology solutions in core target markets including cell and gene therapy, injectable drugs, vaccines and bio-manufacturing.

- **Capsules & Health Ingredients** is the trusted partner in innovative capsules and dosage form solutions and in health ingredients for pharmaceutical and nutraceutical customers.

The table below shows information for the Group's four operating segments provided to the Group's Executive Committee and also illustrates the disaggregation of recognized revenues for the twelve month period ended 31 December:

million CHF	2021	2020
Biologics	2,699	2,146
Small Molecules	767	692
Cell & Gene	602	481
Capsules & Health Ingredients	1,204	1,153
Corporate	137	36
Total	5,409	4,508

3.2 Contract Assets and Liabilities

The Group recognized contract assets mainly consisting of contract fulfilment costs that are incurred after a contract is obtained but before goods or services have been delivered to the customer. These costs arise from long-term contracts in the custom manufacturing business for customer-specific production facility expansions or modifications on Lonza's premises. They typically include costs for commissioning, qualification and start-up, as well as for activities relating to process development and technology transfer. The assets are amortized on a straight line basis over the term of the specific contract they relate to, consistent with the pattern of recognition of the associated revenue. Additionally, if services rendered by Lonza exceed the payment received, a contract asset (accrued income) is recognized.

Contract liabilities mainly consist of upfront and other one-time payments, typically resulting from long-term contracts in the contract development and manufacturing business. These payments make up part of the expected transaction price and are deferred until batches are released. Additionally, if the payments received exceed services rendered, a contract liability (deferred income) is recognized. The non-current portion of deferred revenue is included in other long-term liabilities in the consolidated balance sheet.

The Group has recognized the following revenue-related contract assets and liabilities:

million CHF	2021	2020
Trade receivables	928	715
Total trade receivables	928	715

million CHF	2021	2020
Accrued income	127	185
Capitalized contract cost ¹	54	42
Total contract assets	181	227

¹ Thereof non-current CHF 32 million (2020: CHF 29 million) and current CHF 22 million (2020: 13 million)

million CHF	Notes	2021	2020
Non-current deferred income	16	675	444
Current deferred income	16	667	513
Total contract liabilities		1,342	957

Movement in Capitalized Costs to Fulfill a Contract

million CHF	2021	2020
At 1 January	42	31
Asset recognised from costs incurred to fulfill a contract at 31 December	39	28
Amortisation and impairment loss recognised as cost of providing services during the period	(27)	(17)
At 31 December	54	42

Movement in Contract Liabilities

million CHF	2021	2020
At 1 January	957	609
Revenue recognized that was included in the contract liability balance at the beginning of the period	(520)	(365)
Increases due to cash received, excluding amounts recognised as revenue during the period	841	739
Reclassification to asset held for sale	0	(13)
Acquisition of subsidiaries	60	0
Currency translation effects	4	(13)
At 31 December	1,342	957

Note 4

Restructuring

Year ended

31 December 2021

million CHF	Total operating segments	Corporate	Total
Impairment / (reversal of impairment) of property, plant and equipment and intangible assets	0	(8)	(8)
Restructuring charges / (income)	(7)	1	(6)
Total	(7)	(7)	(14)

Year ended

31 December 2020¹

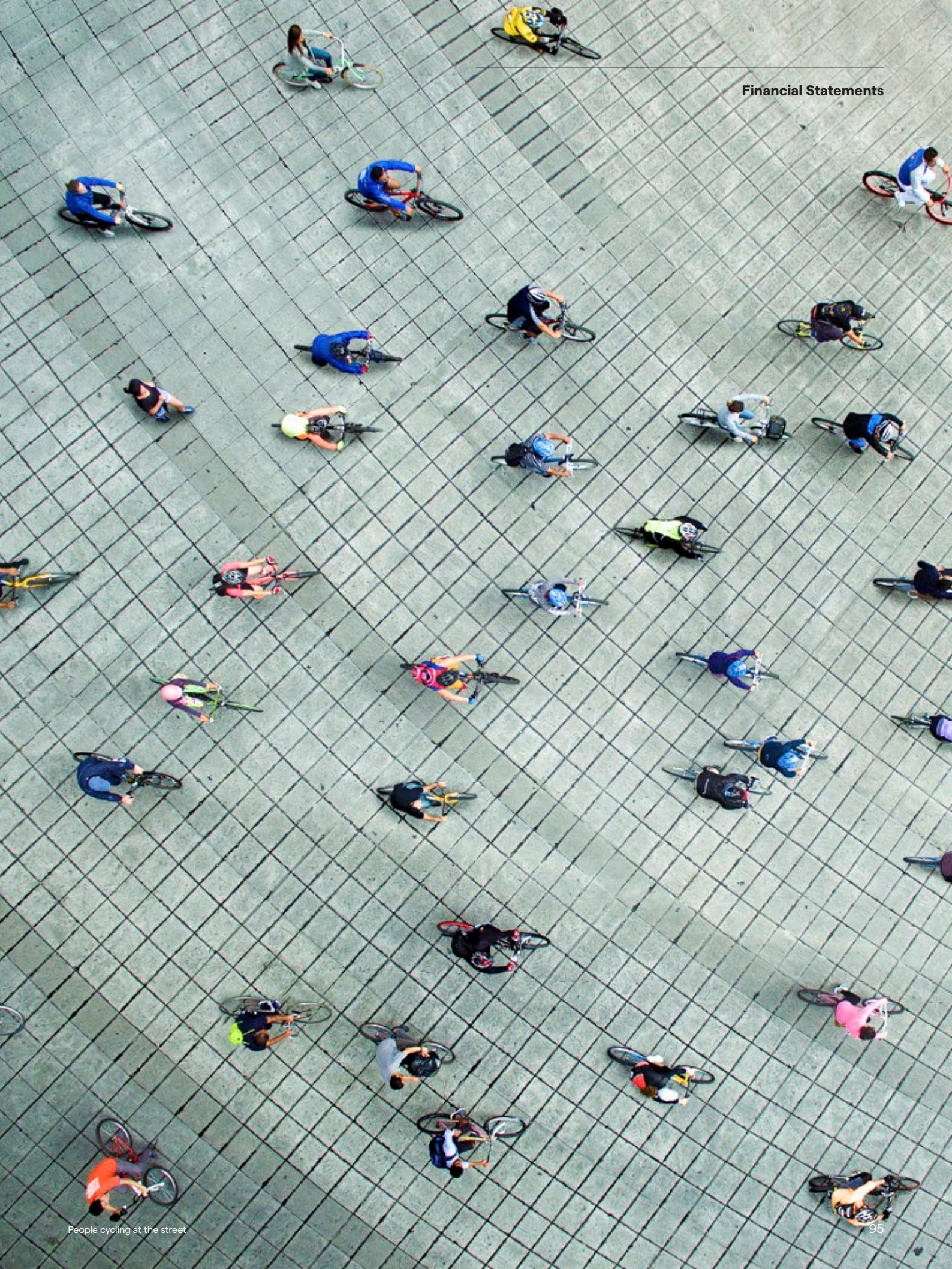
million CHF	Total operating segments	Corporate	Total
Impairment / (reversal of impairment) of property, plant and equipment and intangible assets	4	20	24
Restructuring charges / (income)	21	1	22
Total	25	21	46

¹ Prior year information was restated to reflect Lonza's new divisional structure effective as from 1 January 2021 and the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

In 2020, Lonza recognized an impairment loss of CHF 20 million related to production facilities in Nansha. These assets were previously reported in the former Specialty Ingredients segment. However, due to local regulatory requirements, these assets were retained by Lonza following the divestment of the Specialty Ingredients business subject to a supply agreement with a limited contractual term. The impairment of CHF 20 million reflected the estimated future cash flow expected to be generated under the supply agreement.

In 2021, Lonza recognized an impairment reversal of CHF 8 million related to the same assets to reflect revised contractual terms / expected future cash flows under the same supply agreement.

For both years, the impairment related charge and its partial reversal have been recognized as a component of other operating expenses.



Note 5

Business Combinations and Sale of Businesses

5.1

Divestment of Lonza Specialty Ingredients (LSI) Business (2021)

On 23 July 2020, Lonza's Board of Directors decided to divest the Specialty Ingredients (LSI) segment via a sales process, which was initiated in the second half of 2020.

On 8 February 2021, Lonza announced that it entered into a definitive agreement with Bain Capital and Cinven. The divestment of the former Specialty Ingredients business was completed on 1 July 2021 for an enterprise value of CHF 4.2 billion and was finally settled before 31 December 2021.

In accordance with IFRS 5, assets and liabilities related to the LSI business were reclassified to assets and liabilities of a disposal group held for sale in the statement of financial position as from 1 October 2020. As the carrying amount of the disposal group held for sale was lower than its respective fair value less costs to sell, no impairment losses had been recorded.

Furthermore, the results from LSI were presented as part of discontinued operations in 2020 and 2021.

Intragroup transactions between Lonza's continuing and discontinued operations have been attributed in a way that reflects how these transactions are expected to be continued in the future. As intercompany loans and debts were expected to be settled prior to or at the closing of the transaction, effects from these transactions within financial result were eliminated. To the contrary, certain supply and service agreements continue to be in place even after the closing of the transaction and therefore were not eliminated. The Group has primarily identified supply and service agreements between continuing operations and LSI in Lonza's facilities in Visp (CH) and Nansha (CN). In 2021, sales from the Lonza continuing business to discontinued operations amounted to CHF 107 million (2020: CHF 104 million) while sales from discontinued operations to the Lonza continuing business amounted to CHF 30 million (2020: CHF 36 million).

The results from the Specialty Ingredients business (six months for 2021 and twelve months for 2020), which are presented as discontinued operations, are as follows:

million CHF	2021 ¹	2020
Sales	887	1,677
Costs of goods sold ²	(611)	(1,158)
Gross profit	276	519
Marketing and distribution	(49)	(107)
Research and development	(15)	(35)
Administration and general overheads ³	(70)	(176)
Other operating income	10	26
Other operating expenses	(7)	(32)
Result from operating activities (EBIT)	145	195
Net financial result	(4)	(8)
Share of loss of associates / joint ventures	(1)	(4)
Profit from operating activities before taxes	140	183
Income taxes	(35)	(44)
Profit from operating activities, net of tax	105	139
Gain on sale of discontinued operations ⁴	2,172	0
Income tax on sale of discontinued operations	(7)	0
Profit from discontinued operations, net of tax	2,270	139
Attributable to:		
Equity holders of the parent	2,270	139
Non-controlling interest	0	0
	CHF	
Basic earnings per share	30.57	1.87
Diluted earnings per share	30.47	1.87

¹ The LSI business was sold effective 1 July 2021. Therefore, results from operating activities in 2021 are not comparable to 2020, as it only comprises six months

² In 2020, including impairment charges on active production sites (CHF 13 million, mainly in Visp and Kourim)

³ In 2020, including carve-out and divestiture costs related to Specialty Ingredients (CHF 35 million)

⁴ In 2021, the gain from discontinued operations includes the proceeds received (CHF 4,016 million), the net assets that were disposed of (CHF 1,602 million), the divestiture and separation related costs (FY 2021: CHF 56 million, FY 2020: CHF 37 million) and the recycling of accumulated exchange rate translation reserve losses (CHF 186 million)

The primary components of the cash flow from discontinued operations are presented below for the twelve months ended 31 December 2021 and twelve months ended 31 December 2020:

million CHF	2021	2020
Net cash used for / (provided by) operating activities	(42)	155
Net cash used for / (provided by) investing activities	(41)	(77)
Net cash used for / (provided by) financing activities	(16)	7
Net cash flows for the year	(99)	85

At 31 December 2020 the assets and liabilities held for sale related to LSI were as follows:

million CHF	
Goodwill	492
Intangible assets	206
Property, plant & equipment	605
Other non-current assets	54
Inventories	309
Trade receivables	180
Other receivables	49
Cash and cash equivalents	124
Assets of disposal group classified as held for sale	2,019
Non-current provisions	(18)
Employee benefit liability	(191)
Other non-current liabilities	(14)
Deferred tax liabilities	(48)
Trade payables	(91)
Other current liabilities	(173)
Current debt	(14)
Current tax payables	(6)
Liabilities directly associated with assets of disposal group classified as held for sale	(555)
Net assets directly associated with disposal group classified as held for sale	1,464

The divestment of the former Specialty Ingredients business was completed on 1 July 2021. The effects of the disposal of the LSI business on the balance sheet are as follows:

million CHF	
Goodwill	(513)
Intangible assets	(216)
Property, plant & equipment	(669)
Other non-current assets	(25)
Inventories	(332)
Trade receivables	(257)
Other receivables	(58)
Cash and cash equivalents	(44)
Deferred tax liabilities	56
Non-current liabilities	131
Trade payables	145
Other current liabilities	179
Net assets disposed of	(1,602)
Consideration received, satisfied in cash	4,016
Cash and cash equivalents disposed of	(44)
Cash inflow on disposal	3,972

5.2 Divestment of Softgels and Liquid-filled Hard Capsules Business

On 19 January 2021, Lonza announced that it has signed an agreement with NextPharma for the sale of Lonza sites in Ploermel (FR) and Edinburgh (UK) that are specialized in the softgels and liquid-filled hard capsules technologies. The divestment of the two sites was completed on 31 March 2021 generating CHF 120 million net cash proceeds.

The gain from disposal amounts to CHF 4 million before taxes, taking into account the reclassification of the accumulated exchange rate translation reserve losses of CHF 5 million to the income statement and disposal-related expenses of CHF 2 million.

million CHF	
Intangible assets	(55)
Property, plant & equipment	(44)
Other non-current assets	(1)
Current assets (other than cash and cash equivalents)	(37)
Cash and cash equivalents	(8)
Non-current liabilities	13
Current liabilities	16
Net assets disposed of	(116)
Consideration received, satisfied in cash	128
Cash and cash equivalents disposed of	(8)
Cash inflow on disposal	120

5.3 Acquisitions in Exosomes Bioprocessing Business

Effective 15 November 2021, Lonza acquired the exosome manufacturing facility located in Lexington, Massachusetts (US) from Codiak BioSciences, a clinical-stage biopharmaceutical company pioneering the development of exosome-based therapeutics. As part of the signed agreement, Codiak will retain its pipeline of therapeutic candidates as well as its exosome engineering and drug-loading technologies. Codiak will receive as part of the deal USD 65 million of cGMP manufacturing services in kind. Lonza will gain worldwide access and sub-licensable rights to Codiak's high-throughput perfusion-based cGMP process for exosome manufacturing.

Effective 1 December 2021, Lonza acquired the service unit from Exosomics, a leading extracellular vesicles biotech company. The

agreement includes Exosomics' service team, service assets and laboratories in Siena, Italy. Lonza has been a minority shareholder of Exosomics since 2017 and will remain a shareholder after the acquisition of the service unit is complete. The acquisition strengthens Lonza's position as a leading global CDMO in exosomes bioprocessing.

Both transactions did not have any significant impact on the Group consolidated financial statements for the twelve-month period ended 31 December 2021.

The net identifiable assets acquired from the 2021 acquisitions are set out in the table below:

million CHF	
Intangible assets (technologies and customer relationships)	35
Property, plant & equipment	8
Net identifiable assets	43
Goodwill	18
Total consideration	61
Cash consideration	1
Manufacturing services in kind	60
Total consideration transferred	61

5.4 Cash Flow from Acquisitions of Subsidiaries

million CHF	2021	2020
Deferred consideration paid related to Fill and Finish Business, Stein (CH)	(43)	(15)
Cash consideration paid ¹	(3)	0
Contingent consideration paid ²	(2)	0
Cash in acquired companies	0	0
Net cash outflow	(48)	(15)

¹ Payments predominantly related to the acquired Exosomes bioprocessing business
² See [note 29.6](#)

Note 6 Intangible Assets and Goodwill

6.1 Cost and Accumulated Amortization and Impairment

Intangible assets include software purchased from third parties, related software implementation costs, as well as patents, trademarks, client relationships acquired and development costs. Their amortization is included in the line item "Administration and general overheads" of the consolidated income statement.

The Capsugel trade name acquired through the business combination in 2017 as well as the trademarks acquired through the acquisition of Cambrex (2007) are considered to have indefinite useful lives. As a result, these intangible assets with a carrying amount of CHF 251 million as of 31 December 2021 (2020: CHF 261 million) are not systematically amortized.

Development costs as of 31 December 2021 predominantly include technologies acquired with the acquisitions of Capsugel, amounting to CHF 800 million (2020: CHF 912 million) and Octane of CHF 94 million (2020: CHF 100 million).

Year ended

31 December 2021

million CHF	Goodwill	Capsugel trade name and Cambrex Trademarks	Patents, trademarks, client relationship	Computer software	Technologies / Development cost	Construction in progress	Total
Cost							
At 1 January	3,072	261	1,567	201	1,351	0	6,452
Additions	0	0	7	26	5	2	40
Disposals	0	0	0	(1)	0	0	(1)
Acquisition of subsidiaries	18	0	24	0	11	0	53
Disposal of subsidiary	0	0	(61)	0	0	0	(61)
Currency translation differences	(104)	(9)	10	0	(43)	(1)	(147)
At 31 December	2,986	252	1,547	226	1,324	1	6,336
Accumulated amortization and impairment							
At 1 January	0	0	(296)	(125)	(319)	0	(740)
Amortization	0	0	(55)	(25)	(95)	0	(175)
Disposals	0	0	0	1	0	0	1
Disposal of subsidiary	0	0	6	0	0	0	6
Currency translation differences	0	0	(2)	0	14	0	12
At 31 December	0	0	(347)	(149)	(400)	0	(896)
Net carrying amount 31 December	2,986	252	1,200	77	924	1	5,440

Year ended

31 December 2020

million CHF	Goodwill	Capsugel trade name and Cambrex Trademarks	Patents, trademarks, client relationship	Computer software	Technologies / Development cost	Construction in progress	Total
Cost							
At 1 January	3,651	353	1,918	173	1,438	2	7,535
Additions	0	0	3	69	7	0	79
Disposals	0	0	(3)	(23)	(5)	0	(31)
Reclassification from property, plan and equipment	0	0	3	0	0	0	3
Reclassification to asset held for sale	(492)	(82)	(236)	(15)	(63)	0	(888)
Transfers / reclassification	0	0	2	0	0	(2)	0
Currency translation differences	(87)	(10)	(120)	(3)	(26)	0	(246)
At 31 December	3,072	261	1,567	201	1,351	0	6,452
Accumulated amortization and impairment							
At 1 January	0	0	(397)	(144)	(270)	0	(811)
Amortization	0	0	(68)	(21)	(97)	0	(186)
Disposals	0	0	3	23	2	0	28
Impairment losses	0	0	(1)	(1)	0	0	(2)
Reclassification to asset held for sale	0	0	138	15	40	0	193
Currency translation differences	0	0	29	3	6	0	38
At 31 December	0	0	(296)	(125)	(319)	0	(740)
Net carrying amount 31 December	3,072	261	1,271	76	1,032	0	5,712

6.2 Impairment Tests for Cash-Generating Units Containing Goodwill and Intangible Assets with Indefinite Useful Lives

Following the reorganizational changes of Lonza's former Pharma Biotech & Nutrition segment into four operational divisions, Lonza made a comprehensive reassessment of the cash-generating units used for allocating goodwill within its operational divisions and accordingly, prior year information was restated to conform with the current year presentation.

Biologics

Various technologies (mammalian, microbial, etc.) applied within the Biologics division are the cash-generating units identified and subject to impairment testing of goodwill.

Small Molecules

In providing customized API development and manufacturing services, the Small Molecules division applies different chemical technologies representing a separate cash-generating unit. This cash-generating unit is subject to impairment testing of goodwill.

Cell & Gene

The Cell and Gene division applies various technologies (bioscience solutions, cell therapy, viral therapeutics etc.) which are cash-generating units and subject to impairment testing of goodwill and intangible assets with indefinite useful lives.

Capsules & Health Ingredients

The business offers nutritional formulation know-how, capsule and encapsulation technologies. The applied technologies represents the cash-generating unit that is subject to impairment testing of goodwill and intangible assets with indefinite useful lives.

The reported goodwill and intangible assets with indefinite useful lives are monitored on operational division level. The following divisions maintain carrying amounts of goodwill as presented below (at year-end exchange rates):

million CHF	2021	2020
Biologics	34	34
Small Molecules ¹	1,129	38
Cell & Gene	385	368
Capsules & Health Ingredients ¹	1,438	0
Chemical and Capsules & Health Ingredients business (representing a group of cash-generating units) ¹	0	2,632
Total carrying amounts of goodwill as at 31 December	2,986	3,072

¹ Goodwill resulting from the acquisition of Capsugel was proportionally reallocated to combined businesses of Capsules & Health Ingredients as well as Small Molecules

The following divisions maintain carrying amounts of intangible assets with indefinite useful lives as presented below (at year-end exchange rates):

million CHF	2021	2020
Cell & Gene	25	24
Capsules & Health Ingredients ¹	227	237
Total carrying amounts of intangible assets with indefinite useful life as at 31 December	252	261

The recoverable amount of the cash-generating units is based on the value-in-use calculation. The supporting cash flow projections for 2022 to 2026 are based on the Lonza business strategy review and exclude any future cash inflows and outflows expected to arise from the growth potential of future capital expenditures.

The cash flow projections beyond the five-year period, of the most significant cash-generating units below, are based on the concept of perpetual growth rates, which do not necessarily reflect the Group's strategic objective targets for the future growth potential of the underlying businesses. The key assumptions and the approach to determining the value in use of the significant cash-generating units carrying significant goodwill are based on the following:

The cash-generating unit capsules & health ingredients provide cash flow projections for 2022–2026 based on a 4.4% average sales growth with increasing EBIT margins. The cash flow projections beyond the five-year period are based on 2.0% growth rate. A pre-tax discount rate of 7.3% has been used in discounting the projected cash flows.

The chemical cash-generating unit represents the business activities of the Small Molecules division. The cash flow projections for 2022–2026 are based on a 10.3% average sales growth with increasing EBIT margins. The cash flow projections beyond the five-year period are based on 2.0% growth rate. A pre-tax discount rate of 5.5% has been used in discounting the projected cash flows.

Bioscience Solutions / Cell Therapy / Viral Therapeutics businesses is a group of cash-generating units reported in the Cell and Gene division. The businesses are characterized by strong dynamic growth across the majority of its markets, driven by the aging population and improved access to healthcare. The cash flow projections for 2022–2026 are based on a 20.6% (2020: 20.9%) average sales growth. The cash flow projections beyond the five-year period are extrapolated using a 2.0% (2020: 2.0%) growth rate. A pre-tax discount rate of 5.8% (2020: 5.7%) has been used in discounting the projected cash flows.

A sensitivity analysis for the cash-generating units and groups of cash-generating units to which a significant amount of goodwill or intangible assets with indefinite useful lives are allocated was performed. The analysis was based on changes in key inputs which management considers to be reasonably possible:

- A reduction in cash flows by 10%
- Or an increase in discount rate by one percentage point
- Or a reduction in the perpetual growth rate by one percentage point.

Management concluded that no impairment loss would need to be recognized on goodwill or intangible assets with indefinite useful lives in any of the cash-generating units (or group of cash-generating units).

Note 7

Property, Plant and Equipment

million CHF	2021	2020
Property, plant and equipment own assets	4,320	3,369
Right-of-use of leased assets	374	222
Total	4,694	3,591

7.1

Property Plant and Equipment Own Assets

Year ended

31 December 2021

million CHF	Notes	Land	Buildings and structures	Production facilities	Construction in progress	Total
Cost						
At 1 January		82	1,673	3,382	1,217	6,354
Additions		0	119	228	911	1,258
Disposals		0	(10)	(41)	(3)	(54)
Acquisition of subsidiaries		0	0	8	0	8
Disposal of subsidiary		(2)	(22)	(22)	(4)	(50)
Transfers / reclassification		0	269	500	(766)	3
Currency translation differences		(1)	13	50	8	70
At 31 December		79	2,042	4,105	1,363	7,589
Accumulated depreciation and impairment						
At 1 January		(1)	(872)	(2,112)	0	(2,985)
Depreciation charge		0	(64)	(247)	0	(311)
Disposals		0	4	35	0	39
Impairment losses	4	0	0	(1)	0	(1)
Reversal of impairment losses	4	0	2	6	0	8
Disposal of subsidiary		0	3	5	0	8
Currency translation differences		0	(4)	(23)	0	(27)
At 31 December		(1)	(931)	(2,337)	0	(3,269)
Net carrying amount 31 December		78	1,111	1,768	1,363	4,320

Year ended
31 December 2020

million CHF	Notes	Land	Buildings and structures	Production facilities	Construction in progress	Total
Cost						
At 1 January		99	2,048	4,805	978	7,930
Additions		0	23	135	712	870
Disposals		0	(4)	(25)	(1)	(30)
Reclassification to asset held for sale		(10)	(414)	(1,603)	(91)	(2,118)
Transfers / reclassification		1	87	251	(339)	0
Currency translation differences		(8)	(67)	(181)	(42)	(298)
At 31 December		82	1,673	3,382	1,217	6,354
Accumulated depreciation and impairment						
At 1 January		(6)	(1,117)	(3,226)	0	(4,349)
Depreciation charge		0	(67)	(243)	0	(310)
Disposals		0	7	20	0	27
Impairment losses	4	0	(10)	(26)	0	(36)
Reversal of impairment losses	4	0	0	3	0	3
Reclassification to asset held for sale		4	289	1,258	0	1,551
Currency translation differences		1	26	102	0	129
At 31 December		(1)	(872)	(2,112)	0	(2,985)
Net carrying amount 31 December		81	801	1,270	1,217	3,369

Commitments (for the continuing business) for capital expenditure in property, plant and equipment amounted to CHF 737 million at year-end 2021 (2020: CHF 410 million), mainly related to capital expenditures at the Visp (CH) and Portsmouth (US) sites. No assets were pledged for security of own liabilities in 2021 and 2020.

7.2 Leases

Right-of-use of Leased Assets

Year ended
31 December 2021

million CHF	Buildings and structures	Production facilities	Others	Total
Net carrying amount at the year ended	285	65	24	374
Additions for the year ended	125	65	15	205
Depreciation for the year ended	(31)	(2)	(3)	(36)
Impairment for the year ended	0	0	0	0

Year ended
31 December 2020

million CHF	Buildings and structures	Production facilities	Others	Total
Net carrying amount at the year ended	213	2	7	222
Additions for the year ended	45	0	3	48
Depreciation for the year ended	(27)	(1)	(2)	(30)
Impairment for the year ended	0	0	0	0

During the year ended 31 December 2021, CHF 20 million (2020: CHF 17 million) was recognized as an expense in the consolidated income statement for continuing business in respect of leases not in scope of IFRS 16.

Lonza predominantly leases office buildings, together with warehouses and production assets. The maturities of the lease liabilities are presented in note 29.3.

Lease expenses and cash outflows

Leases are presented as follows in the income statement:

million CHF	2021	2020
Expenses related to short-term leases and low value assets ¹	(7)	(7)
Expenses related to variable lease payments not included in lease liabilities ¹	(7)	(4)
Other rent expenses (including incidental expenses) ¹	(6)	(6)
Depreciation of right-of-use of leased assets ¹	(36)	(30)
Interest expense on leases ²	(12)	(8)
Total	(68)	(55)
	2021	2020
Total cash outflows on leases	(82)	(76)

¹ Included in cost of good sold and administrative expenses

² Included in financial result

Note 8

Other Non-Current Assets

million CHF	Notes	2021	2020
Loans and advances	15	177	162
Other investments		73	33
Capitalized contract costs	3	32	29
Investments in associates / joint ventures	9	31	56
Defined benefit pension plan asset	24.1	2	2
Contingent consideration related to sale of business	29.6	0	7
Other assets		37	12
Total		352	301

Loans and advances at 31 December 2021 includes a CHF 159 million loan to BioAtrium AG (2020: CHF 149 million). This associated company represents a strategic partnership between Sanofi and Lonza (see [note 9](#)). It also includes a CHF 16 million (2020: CHF 11 million) loan to BacThera (Joint-venture, see [note 9](#)).

Note 9

Investments in Joint Ventures and Associates

In 2021, the Group did not receive any dividends (2020: CHF 1 million) from associates and joint ventures.

The following table summarizes the carrying amounts of interests in joint ventures and associates, which are accounted for using the equity method.

million CHF	2021	2020
Balance Sheet Value		
Interests in joint ventures	0	12
Interests in associates	31	44
Total	31	56
Net income statement effect	2021	2020
Share of profit / (loss) of joint ventures	(15)	(4)
Share of profit / (loss) of associates	(13)	0
Total	(28)	(4)

9.1 Joint Ventures

With BacThera Ltd. (legal entity founded in April 2019), the Group established together with Chr. Hansen Holding A/S a strategic partnership in developing and manufacturing live biotherapeutic products for Pharma Biotech & Nutrition customers. This partnership brings together Chr. Hansen's extensive know-how in developing, upscaling and manufacturing bacteria strains and Lonza's strong capabilities in pharma contract manufacturing and outstanding formulation and drug delivery technologies. The phased investment of approximately EUR 90 million is shared equally between

the parties to build cGMP-compliant pharma production capabilities. BacThera Ltd is expected to be fully operational in 2022. In addition to the equity funding, Lonza financed the joint venture with a loan of CHF 16 million (2020: CHF 11 million). Lonza accounts for its 50% share in BacThera Ltd as a joint venture in accordance with IFRS 11. In 2021, Lonza considered its share of loss and recognized an adjustment to its investment value in BacThera Ltd of CHF 14 million.

9.2 Associates

Lonza holds a 50% stake in BioAtrium Ltd (CH), as well as in another individually immaterial company.

BioAtrium Ltd

BioAtrium Ltd was founded in 2017 for the strategic partnership with Sanofi. This strategic partnership is building and will operate a largescale mammalian cell culture facility for monoclonal antibody production in Visp (CH). The total commitment of both partners is estimated to be CHF 290 million and is equally shared between the two parties. The facility commenced its operational manufacturing at the end of 2021. Lonza continues to account for its share in BioAtrium Ltd as an investment in associates in accordance with IAS 28. In 2021, Lonza granted

additional loans of CHF 10 million to BioAtrium Ltd. The financial results of BioAtrium Ltd in both reporting periods represent predominantly the costs incurred during the operational ramp-up phase. According to the shareholder's agreement, these costs were funded by both shareholders. In 2021, Lonza considered its share of loss and recognized an adjustment to its investment value in BioAtrium Ltd by CHF 13 million.

The following table summarizes certain financial information of BioAtrium Ltd and Lonza's investment in the associate:

million CHF	2021	2020
Percentage of ownership	50%	50%
Current assets	88	70
Non-current assets	347	323
Current liabilities	53	19
Non-current liabilities (including non-current debt of CHF 317 million; 2020: CHF 297 million)	334	303
Net assets (100%)	48	71
Group's share of net assets (50%)	24	36
Carrying amount of interest in BioAtrium Ltd	31	44

Note 10

Inventories

million CHF	2021	2020
Inventories	1,623	1,252
Value adjustments	(122)	(116)
Total	1,501	1,136

million CHF	2021		2020	
Raw materials	41%	616	32%	365
Work in progress	14%	210	13%	147
Finished goods	32%	478	42%	480
Other	13%	197	13%	144
Total	100%	1,501	100%	1,136

By Operating Segments

million CHF	2021		2020	
Biologics	51%	770	40%	451
Small Molecules	22%	325	27%	307
Cell & Gene	12%	181	13%	147
Capsules & Health Ingredients	15%	232	20%	223
Corporate / Intercompany Profit Eliminations	0%	(7)	0%	8
Total	100%	1,501	100%	1,136

The cost of inventories recognized as expenses during the period and included in "Cost of goods sold" amounted to CHF 3,246 million (2020: CHF 2,676 million).

Inventory Value Adjustments

million CHF	Raw materials	Work in progress and finished goods	Other	Total 2021	Total 2020
At 1 January	29	65	22	116	114
Increase	17	48	4	69	107
Reversal / Utilization of write-downs	(5)	(57)	1	(61)	(72)
Transfer to assets held for sale	0	0	0	0	(31)
Disposal of subsidiaries	0	(1)	0	(1)	0
Currency translation differences	(1)	0	0	(1)	(2)
At 31 December	40	55	27	122	116



Note 11

Trade Receivables

million CHF	2021	2020
Receivables from customers	940	729
Allowances for credit losses	(12)	(14)
Total	928	715

The Group's credit risk is diversified due to the large number of entities comprising the Lonza customer base and the dispersion across many different industries and regions. Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. At 31 December 2021, there were no significant concentrations of credit risk. The maximum exposure to credit risk is equal to the carrying amounts.

Reconciliation of Changes in Allowance Accounts for Credit Losses

million CHF	2021	2020
Balance at the beginning of the year	14	16
Write-offs	(2)	(7)
Increase in provision for credit losses	0	9
Decrease in provision for credit losses	0	(3)
Reclassification to assets held for sale	0	(1)
Balance at the end of the year	12	14

In general, Lonza does not require collateral in respect of trade and other receivables, but uses credit insurance for country risk where appropriate.

Note 12

Other Receivables, Prepaid Expenses and Accrued Income

million CHF	Notes	2021	2020
Accrued income	3	127	185
Other receivables		81	87
Prepaid expenses		39	71
Derivative financial instruments	29.5	41	37
Capitalized contract costs	3	22	13
Prepaid taxes and social security payments		4	4
Contingent consideration related to sale of business	29.6	0	7
Total		314	404

“Other receivables” include accruals and receivables for taxes (other than income taxes).

Note 13

Cash and Cash Equivalents

million CHF	2021	2020
Cash	954	345
Time deposits	628	150
Total	1,582	495

Note 14

Provisions

million CHF	Environmental	Restructuring	Other	Total
At 1 January 2021	113	13	31	157
Increase	306	2	6	314
Used	(23)	(6)	(24)	(53)
Reversed	(2)	(3)	(1)	(6)
At 31 December 2021	394	6	12	412
thereof current	34	4	6	44
thereof non-current	360	2	6	368

Environmental

The environmental provision comprises the estimated probable future expenses for environmental remediation and protection for existing as well as divested plants. The vast majority of the provision of CHF 394 million (2020: CHF 113 million) relates to the Visp site and is expected to be utilized within ten years.

Lonza maintains an old landfill close to its Visp (CH) site (Gamsenried landfill). This landfill was in use from 1918 until 2012 and contains hazardous materials. Lonza will need to perform remediation measures in order to comply with environmental regulations.

In 2020 Lonza completed a pre-study that addresses potential remediation methods and measures. Furthermore, Lonza and the environmental authorities of the canton of Valais aligned on the base principles of a remediation strategy during 2020.

During the year 2021 Lonza has submitted a risk assessment of the old landfill to the environmental authorities of the canton of Valais which identified the most critical area regarding the groundwater protection and related remediation measures.

In addition, Lonza's detailed investigations have further progressed during 2021. Therefore, Lonza is in the position at 31 December 2021 to define the most likely remediation measures on the most critical area as well as the extent of remediation required. Lonza's estimate of remediation costs for this most critical area regarding groundwater protection amount to CHF 285 million for which Lonza recognized a provision at 31 December 2021.

However, for remaining areas of the landfill, it is not possible as of 31 December 2021 to make an informed judgment on, or reasonably predict, potential additional required remediation measures. With the current available information it is not possible for Management to estimate further potential liabilities other than the provision which was recognized. Lonza continues to closely monitor the development of the situation and will adjust the provision going forward accordingly.

Restructuring

The restructuring provision primarily reflects the expected employee termination costs related to ongoing restructuring programs (see [note 4](#)).

Other

Other provisions are predominately associated with the asset retirement obligations of Lonza's Singapore based operations.

Note 15

Net Debt

The net debt comprises:

million CHF	Notes	2021	2020
Debt			
Non-current debt		2,234	2,784
Current debt		169	796
Total debt of continuing business		2,403	3,580
Current debt classified as held for sale	5.1	0	14
Total debt		2,403	3,594
Loans and advances (floating interest rates)			
Non-current loans and advances		(177)	(162)
Short-term investments		(1,602)	0
Cash and cash equivalents		(1,582)	(495)
Cash and cash equivalents classified as held for sale	5.1	0	(124)
Total loans and advances and cash and cash equivalents		(3,361)	(781)
Net debt / (net cash)	13	(958)	2,813

Non-Current Debt

million CHF	2021	2020
Straight bonds	1,246	1,374
Term loan	635	612
German private placement	240	669
Other long-term debt	113	129
Total non-current debt	2,234	2,784

Straight Bonds - Fixed Interest Rates

million CHF	2021	2020
CHF bonds		
0.2% CHF 125 million, 2017/2021, due 12 July 2021, issued at 100.179%	0	125
0.125% CHF 250 million, 2016/2021, due 1 November 2021, issued at 100.037%	0	250
3% CHF 105 million, 2012/2022, due 11 October 2022, issued at 100.74%	105	105
1%, CHF 300 million, 2020/2023, due 28 April 2023, issued at 100.015%	299	299
1.25% CHF 175 million, 2015/2023, due 22 September 2023, issued at 100.133%	175	175
0.7% CHF 110 million, 2017/2024, due 12 July 2024, issued at 100.222%	110	110
0.35%, CHF 150 million, 2020/2026, due 22 September 2026, issued at 100.148%	150	150
EUR bonds		
1.625% EUR 500 million, 2020/2027, due 21 April 2027, issued at 99.424%	512	535
Total including current portion	1,351	1,749
Less current portion of straight bonds	(105)	(375)
Total non-current straight bonds	1,246	1,374

Current Debt

million CHF	2021		2020	
Due to banks and other financial institutions	0		6	
Others	64		63	
Non-current debt due within one year				
- German private placement	0		352	
- Straight bond (2016-2021)	0		250	
- Straight bond (2017-2021)	0		125	
- Straight bond (2012-2022)	105		0	
Total current debt	169		796	

Debt: Movements in Carrying Value of Recognised Liabilities

million CHF	2021	2020
At 1 January	3,580	3,540
Repayment of straight bond	(375)	(150)
Issuance of straight bonds	0	970
Issuance / (repayment) of term loan	0	(526)
Repayment of syndicated loan	0	(144)
Repayment of German private placements	(784)	0
Increase / (decrease) in other debt	(27)	4
Changes from financing cash flows	(1,186)¹	154
Amortization of financing costs and discounts	5	5
Reclassification to liabilities held for sale	0	(14)
Net foreign currency transaction (gains) losses	22	(105)
Currency translation effects	(18)	0
Changes in foreign exchanges rates	4	(105)
At 31 December	2,403	3,580

¹ Net repayment of debt CHF 15 million related to discontinued operations, resulting in a total change from financing cash flows of CHF 1'201 million

Breakdown of Total Debt by Currencies

million CHF	2021			2020		
	Average Interest Rate %	%		Average Interest Rate %	%	
CHF	0.93	37	879	0.81	36	1,272
EUR	1.38	29	706	1.13	36	1,293
USD	1.99	34	818	2.20	28	1,015
Total		100	2,403		100	3,580

Credit Rating

In January 2019, Lonza announced that Standard & Poor's (S&P) rated the company with an investment grade rating of BBB+ and stable outlook. The rating has been confirmed by S&P since then and Lonza is committed to maintaining a strong investment-grade rating going forward.

Debt repayments

Following the successful closing of the transaction to sell the Lonza Specialty Ingredients business and the receipt of the disposal net proceeds in July 2021, Lonza did not issue any new bonds or other debt securities in 2021. Furthermore Lonza repaid its scheduled debt maturities in 2021 totaling CHF 727 million equivalent (thereof CHF 352 million related to the Schuldschein and CHF 375 million related to the Swiss bonds). Furthermore, Lonza decided to early repay floating rate Schuldschein notes totaling CHF 432 million equivalent.

Eurobond

In April 2020 Lonza issued its inaugural Eurobond with a coupon of 1.625% in the European capital market. The net proceeds were used to refinance existing debt and general corporate purposes. The bond with a volume of EUR 500 million has a maturity of 7 years. The notes have been offered under a standalone Prospectus and have been listed on the Luxembourg Stock Exchange.

CHF-bonds

In 2020, Lonza issued two additional CHF-Bonds. In April 2020 a CHF 300 million note with a maturity of 3 years and an annual coupon of 1.000% followed by a CHF 150 million note with a maturity of six years and an annual coupon of 0.35% in September. The net proceeds were used for refinancing and general corporate purposes.

German Private Placement (Schuldschein)

Following the repayment of the scheduled debt maturities of EUR 325 million (equaling to CHF 352 million equivalent) in August and the early repayment of the floating rate notes of USD 250 million and EUR 187.5 million in August and September 2021 (totaling CHF 432 million equivalent), Lonza maintains two fixed rate notes of the dual-currency Schuldschein issued in August 2017. Remaining notes are repayable in 2023 (EUR 187.5 million) and 2024 (USD 50 million).

Syndicated Loan Facilities

In 2019, Lonza signed a Syndicated Loan Facility with a consortium of banks containing Term Loans and a Revolving Credit Facility.

With the agreement Lonza issued Term Loan tranches of EUR 500 million, USD 500m and USD 200m carrying floating interest rates and initially repayable in 2020, 2024 and 2025 respectively. The proceeds have been used to replace existing facilities at favorable market conditions. In April 2020 the Term Loan of EUR 500 million has been successfully refinanced with a 7 year Eurobond. In June 2020, Lonza successfully extended its USD Term Loans by 1 year.

The Revolving Credit Facility (RCF) provides Lonza additional financial headroom of CHF 1 billion, initially due 2024, at floating interest rates. The facility was not used as of 31 December 2021 (in 2020, the facility was not used either). Lonza successfully drew its extension option in 2020 and 2021, therefore the RCF was extended by 2 years in total with a final maturity date in 2026.

Other Debt

Other current and non-current debt comprise industrial revenue bonds of USD 152 million issued by governmental institutions in the United States (repayable in 2022, 2025, 2030 and 2047).

Liquidity Management / Short-term Investments

Following the sale of the Lonza Specialty Ingredients business, Lonza parked the excess cash into short-term instruments, such as overnight deposits, bank term deposits, notice deposits and short-term money market funds in line with the Group's investment policy.

At year-end Lonza maintained a total balance of CHF 3.2 billion, thereof CHF 1.6 billion was classified as cash & cash equivalents (cash at banks and bank deposits with maturities less than 3 months). Furthermore, Lonza held short-term investments amounting to CHF 1.6 billion, thereof bank deposits with maturity between three and six months totaling CHF 1.4 billion (financial assets at amortized costs) and investments into short-term money market funds of CHF 0.2 billion (financial assets at fair value through profit or loss).

Short-term Investments

million CHF		2021	2020
Investments at amortized costs		1,357	0
Investments at fair value through profit or loss		245	0
Total short-term investments		1,602	0

The majority of the short-term investments are made in CHF while a minor portion is made in USD (see [note 29.4](#)).

Note 16 Other Non-Current and Current Liabilities

Other Non-Current Liabilities

million CHF	Notes	2021	2020
Deferred income	3	675	444
Lease liabilities		296	210
Contingent consideration	29.6	27	26
Derivative financial instruments	29.5	13	25
Other liabilities		16	5
Total other non-current liabilities		1,027	710

Other Current Liabilities

million CHF	Notes	2021	2020
Deferred income	3	667	513
Accrued liabilities and other payables		495	418
Personnel related liabilities		268	231
Lease liabilities		50	24
Derivative financial instruments	29.5	36	4
Contingent consideration	29.6	0	2
Accrued interest payables		14	15
Other liabilities		15	5
Total other current liabilities		1,545	1,212

Note 17

Trade Payables

million CHF	2021	2020
Payable to third parties	483	308
Total	483	308

Payables to third parties principally comprise amounts outstanding for trade purchases and ongoing costs. The carrying amount of trade payables approximates their fair value.

Note 18

Material and Energy Costs

million CHF	2021	2020
Material costs	1,097	938
Energy costs	95	61
Total	1,192	999

Note 19

Personnel Expenses

million CHF	2021	2020
Wages and salaries	1,369	1,211
Operating expenses defined benefit pension plans	51	36
Other social security contributions	297	257
Other personnel expenses	172	139
Total	1,889	1,643

Note 20

Other Operating Income and Expenses

20.1 Other Operating Income

million CHF	Notes	2021	2020
Revenue from Transitional Service Agreements with entities that were disposed of ¹		20	8
Government grants, research & development and other tax credits		10	18
Write back of provisions		9	1
Reversal of impairment on property, plant and equipment ²		8	0
Divestment of Softgels and liquid-filled hard capsules business	5.2	4	0
Gain from disposal of property, plant and equipment and other assets		2	0
Gain from foreign exchange rate differences and other operating derivative instruments		0	9
Sundry income		9	6
Total		62	42

20.2 Other Operating Expenses

million CHF		2021	2020
Increase in provision ³		(309)	(5)
Impairment on property, plant and equipment ²		0	(20)
Loss from disposal of property, plant and equipment and other assets		(9)	(7)
Settlement of customer claims / litigations		(1)	(13)
Loss from foreign exchange rate differences and other operating derivative instruments		0	(8)
Sundry expense		(17)	(7)
Total		(336)	(60)

¹ Income related to transitional services Speciality Ingredients business for 2021 (that was sold effective on 1 July 2021) and to the Water Care business for 2020 (that was sold effective on 28 February 2019)

² Impairment / reversal of impairment on property, plant and equipment in both 2021 and 2020 primarily relate to the Corporate assets in Guangzhou (CN) - (see [note 4](#))

³ Increase in 2021 predominantly related to environmental remediation provisions for Gamsenried (CH) (see [note 14](#))

Note 21

Net Financial Result

21.1 Interest and Other Financial Income

million CHF	2021	2020
Interest income	3	3
Gains on investments measured at fair value through profit or loss	30	7
Other financial income	0	2
Total	33	12

21.2 Interest and Other Financial Expenses

million CHF	2021	2020
Interest expenses on debt and bonds	(38)	(46)
Amortization of debt fees and discounts	(5)	(7)
Interest related to derivative instruments	(13)	(9)
Interest expenses on IFRS 16 lease liabilities	(12)	(8)
Net interest expenses on financial assets	(10)	0
Foreign exchange rate differences, including impact from currency-related financial derivative instruments	(7)	(19)
Losses on investments measured at fair value through profit or loss	(3)	(5)
Interest expenses on IAS 19 employee benefit liabilities	(1)	(2)
Other interest expenses	(3)	(6)
Other financial expenses	(4)	(4)
Total	(96)	(106)

Note 22

Taxes

22.1 Income Taxes

Lonza Group Ltd is domiciled in Switzerland. Following the implementation of the Swiss tax reform effective 1 January 2020 which among other changes abolished the holding regime, the income tax rate for Lonza Group Ltd. domiciled in Basel is 13% (2020: 13%).

As the Group operates across the world, it is subject to income taxes in several different tax jurisdictions. Lonza applies the ordinary tax rate of its top holding company (Lonza Group Ltd) in the Canton of Basel in Switzerland as the Group's tax rate.

The Group's effective tax rate for 2021 is 11% (2020: 9%).

The enactment of the Valais tax reform reduced the Valais income tax rate to 20.1% (for 2020), 18.6% (for 2021) and 17% (for the years 2022 and following). As a result of this tax rate reduction, Lonza recognized in 2020 non-recurring adjustments to its deferred tax liabilities resulting in a net income tax benefit of CHF 21 million.

Major Components of Tax Expenses

million CHF	2021	2020
Current taxes	(126)	(84)
Deferred tax expense relating to the origination and reversal of temporary differences	42	(10)
Deferred tax income resulting from tax rate changes	1	23
Total	(83)	(71)

Reconciliation of Tax Expenses

million CHF	2021	2020
Profit before income taxes	760	803
Tax at the group rate (2021: 13% / 2020: 13%)	99	105
Deviation from average group tax rate	17	22
Non-deductible expenses	10	10
Tax-free earnings	(33)	(27)
Deferred tax effect from tax rate changes	(1)	(23)
Changes in prior year estimates (including valuation allowances)	(21)	(27)
Withholding taxes	5	1
Tax on unremitted earnings	0	1
Effect of non-recognition of deferred tax assets	8	8
Other	(1)	1
Total	83	71
Current tax expenses (charged) / credited directly to equity	2	17

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The components of deferred income tax balances are included in the following captions in the consolidated balance sheet:

Components of Deferred Income Tax Balances

million CHF	2021		2020	
	Assets	Liabilities	Assets	Liabilities
Current provisions	18	31	16	15
Non-current provisions / Employee benefit liabilities	96	31	105	33
Intangible assets	0	522	0	570
Inventories, net	30	32	15	33
Property, plant and equipment	11	153	13	126
Other assets	2	3	0	0
Tax loss carry-forwards and tax credits	93	0	71	0
Netting of deferred tax assets and deferred tax liabilities	(232)	(232)	(196)	(196)
Total	18	540	24	581

The development of deferred tax (expenses) / income can be explained as follows:

million CHF	2021	2020
Deferred tax assets	18	24
Deferred tax liabilities	(540)	(581)
Net deferred tax liability, at 31 December	(522)	(557)
Less deferred tax liabilities net, at 1 January	557	607
(Increase) in deferred tax liabilities, net	35	50
Currency translation differences	(11)	(17)
Disposal of subsidiaries	(8)	0
Movements of deferred (tax assets) / liabilities recognized in other comprehensive income	30	(1)
Movements of deferred (tax assets) / liabilities recognized in equity	(1)	0
Deferred tax expense related to discontinued operations	0	(5)
Reclassification to assets / liabilities held for sale	(2)	(14)
(Expense) / income recognized in income statement	43	13

Unrecognized Tax Losses: Expiry

million CHF	2021	2020
Within 1 year	0	4
Between 2 to 5 years	89	122
After 5 years	1	36
Unlimited	84	29
Total	174	191

In addition to the unrecognized tax losses shown in the table above, the Group has additional unrecognized tax losses for US state tax purposes in the amount of CHF 328 million at 31 December 2021 (2020: CHF 346 million). These losses expire in more than 5 years.

In assessing whether it is probable that future taxable profit will be available to utilize these tax loss carry-forwards, management considers whether such benefits are recoverable on the basis of the current situation of the company and the future economic benefits outlined in specific business plans for each relevant subsidiary.

Deferred tax liabilities have not been established for withholding any other taxes that would be payable on the remittance of earnings of foreign subsidiaries, where such amounts are currently regarded as permanently reinvested. The total unremitted earnings of the Group that would be subject to withholding tax or other taxes upon remittance, but which are regarded as permanently reinvested, were CHF 409 million at 31 December 2021 (2020: CHF 416 million).

22.2 Disclosure of Tax Effects on Each Component of Other Comprehensive Income

million CHF	2021			2020		
	Before-tax amount	Tax (expense) benefit	Net-of-tax amount	Before-tax amount	Tax (expense) benefit	Net-of-tax amount
Exchange differences on translating foreign operations	123	(3)	120	(230)	7	(223)
Cash flow hedges	19	(3)	16	(4)	1	(3)
Remeasurement of defined-benefit liability	247	(45)	202	(32)	1	(31)
Other comprehensive income	389	(51)	338	(266)	9	(257)

Note 23 Research & Development Costs

Research & development (R&D) costs include all primary costs directly related to this function, as well as internal services and imputed depreciation. These costs are incurred for:

- Development of new products and services
- Improvement of existing products and services
- Development of new production processes
- Improvement of existing production processes
- Cost for patents
- Purchase price for product and process know-how to the extent not capitalized

The R&D costs for the continuing operations amounted to CHF 181 million (2020: CHF 160 million) and represent the full range of R&D activity. However, the consolidated income statement discloses lower levels of research & development costs, as the remainder of such costs are absorbed in cost of goods sold for R&D products and services sold.

Note 24 Employee Benefit Liabilities

The tables below reconcile the Group's employee benefit liabilities in the consolidated balance sheet as well as the related remeasurement in the statement of other comprehensive income:

million CHF	Notes	2021	2020
Defined benefit pension plans	24.1	96	280
Non-current vacation accrual (Swiss entities)		1	3
Total		97	283

24.1 Defined-Benefit Pension Plans

The Group operates defined-benefit pension plans in various countries, with the major plans being in Switzerland and Great Britain (as described below). For pension accounting purposes, these plans are considered as defined-benefit plans.

Pension Plan in Switzerland

The Group's Swiss pension plan is governed by the Swiss Federal Law on Occupational Retirement, Survivors and Disability Pension Plans (BVG), and is funded through a legally separate trustee-administered pension fund (Pensionskasse der Lonza). The Board of Trustees is responsible for the investment of the assets, which cannot revert to the Company. The cash funding of these plans, which may from time to time involve special payments, is designed to ensure that present and future contributions should be sufficient to meet future liabilities.

The plan contains a cash balance benefit formula, accounted for as a defined-benefit plan. Employer and employee contributions are defined in the pension fund rules in terms of an age-related sliding scale of percentages of pay. Under Swiss law, the company guarantees the vested benefit amount as confirmed annually to members. Interest may be added to member balances at the discretion of the Board of Trustees. The risks linked to retirement benefits (disability and death) have been reinsured until 31 December 2022. The investment risk is not reinsured.

Retirement benefits are based on the accumulated retirement capital (made up of yearly contributions and the interest thereon), which can either be drawn as a life-long annuity or as a lump-sum payment or a combination of both. The Board of Trustees may adjust the annuity at its discretion subject to the plan's funded status including sufficient free funds as determined according to Swiss statutory valuation rules. Retirement benefits and related plan assets of plan participants with a retirement date on or before 31 December 2007 were transferred to an insurance company. The insurance company guarantees these retirement benefits and bears the investment, death and disability risks.

The employees of the Specialty Ingredients business in Switzerland were transferred to a separate legal entity in 2020, but continued to participate in Lonza's Swiss pension plan. The net defined benefit liability related to the employees of the Specialty Ingredients businesses was disposed of with the sale of the business effective 1 July 2021.

Pension Plan in the UK

The Group operates one major plan in the UK which is closed to new entrants and future accruals. The scheme is registered under UK legislation, is contracted out of the State Second Pension and is subject to the scheme funding requirements outlined in UK legislation. The plan is managed by corporate trustee bodies, which oversee investment strategy and general regulatory compliance. The pension plan was closed to future accruals on 31 March 2020 where the active members became deferred members at that date.

The movement in the net defined liability over 2020 - 2021 is as follows:

	2021			2020		
	Defined benefit obligation	Fair value of plan assets	Net defined benefit liability	Defined benefit obligation	Fair value of plan assets	Net defined benefit liability
At 1 January	2,218	(1,940)	278	3,478	(3,004)	474
Included in profit or loss ¹						
Current service cost	52	0	52	57	0	57
Gains on settlements	0	0	0	(17)	7	(10)
Interest expense / (income)	7	(6)	1	38	(34)	4
Included in other comprehensive income						
Actuarial loss / (gain) arising from:						
– Demographic assumptions	(42)	0		(26)	0	
– Financial assumptions	(80)	0		216	0	
– Experience adjustment	123	0		52	0	
Return on plan assets excluding interest income	0	(170)		0	(211)	
Remeasurements loss / (gain)	1	(170)	(169)	242	(211)	31
Effect of movements in exchange rates	3	(2)	1	(93)	80	(13)
Other						
Contributions paid:						
– Employers	0	(66)	(66)	0	(103)	(103)
– Plan participants	29	(29)	0	28	(28)	0
Benefits paid	(42)	42	0	(103)	103	0
Reclassification to liabilities held for sale	0	0	0	(1,412)	1,250	(162)
Divestiture of subsidiaries	(3)	0	(3)	0	0	0
At 31 December	2,265	(2,171)	94	2,218	(1,940)	278
– Thereof present value of funded defined-benefit obligation	2,255			2,207		
– Thereof present value of unfunded defined-benefit obligation	10			11		

¹ For the financial year 2020, thereof service cost of CHF 12 million, gains on settlements of CHF 1 million and net interest expenses of CHF 2 million are presented as part of discontinued operations

The defined-benefit pension plans are reported as follows in the consolidated balance sheet:

million CHF	2021	2020
	Total	Total
Defined benefit pension plan asset	2	2
Defined benefit pension plan liability	(96)	(280)
Defined benefit pension plan asset classified as held for sale	0	6
Defined benefit pension plan liability classified as held for sale	0	(168)

As a result of plan amendments of the UK plans in 2020 the Group recognized a settlement gain of CHF 11 million (thereof CHF 1 million is presented as part of discontinued operations).

In addition, Lonza settled a pension plan in Germany in 2020, resulting in a settlement loss of CHF 1 million.

The Group expects to pay CHF 55 million in contributions to defined-benefit pension plans of continuing operations in 2022.

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The defined benefit obligation and plan assets are disaggregated by country as follows:

million CHF	2021				2020 ¹			
	CH	UK	Rest of the world	Total	CH	UK	Rest of the world	Total
Present value of defined-benefit obligation	1,973	217	75	2,265	1,890	245	83	2,218
Fair value of plan assets	(1,917)	(213)	(41)	(2,171)	(1,711)	(191)	(38)	(1,940)
Total net defined-benefit liability	56	4	34	94	179	54	45	278

¹ The 2020 defined benefit liabilities and plan assets only include pension plans of continuing operations

The significant actuarial assumptions at the reporting date (expressed as weighted averages) were as follows:

in %	2021		2020 ¹	
	CH	UK	CH	UK
Discount rate	0.35	1.95	0.15	1.35
Future salary increases	1.25	n.a.	1.00	n.a.
Future pension increases	n.a.	3.40	n.a.	3.10

¹ The 2020 assumptions are only related to pension plans of continuing operations

Assumptions regarding future mortality are based on actuarial advice in accordance with published statistics and experience in each territory¹. These assumptions translate into an average life expectancy in years for a pensioner retiring at age 65:

in years	2021		2020	
	CH	UK	CH	UK
Retiring at the end of the reporting period				
- Male	21.8	23.1	21.8	23.4
- Female	23.5	24.7	23.6	24.4
Retiring 20 years after the end of the reporting period				
- Male	23.4	24.4	23.3	24.7
- Female	25.0	26.1	25.1	25.9

¹ For the Pension Plan in Switzerland BVG 2020 (2020: BVG 2015) mortality tables were applied.

The sensitivity of the defined-benefit obligation to changes in the relevant actuarial assumptions is:

effect in million CHF	Change in assumption	31.12.2021		31.12.2020 ¹	
		Increase	Decrease	Increase	Decrease
Discount rate	0.25%	(84)	90	(88)	94
Future salary increases	0.25%	9	(9)	10	(10)
Life expectancy	1 year	92	(94)	87	(88)

¹ The 2020 sensitivity analyses include only net defined benefit liabilities associated with continuing operations

The above sensitivity analyses are based on a change in an assumption while keeping all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined-benefit obligation to significant actuarial assumptions the same method (present value of the defined-benefit obligation calculated with the projected unit

credit method at the end of the reporting period) has been applied as when calculating the pension liability recognized within the balance sheet.

The methods and types of assumptions used in preparing the sensitivity analyses did not change compared with the previous period.

At 31 December the weighted average duration of the defined-benefit obligation for the major plans as well as the Group in total is:

in years	2021	2020 ¹
Group	15.2	16.1
CH	14.4	15.2
UK	24.2	24.5

¹ The 2020 average durations for 2020 include only pension plans of continuing operations

Plan assets comprise:

million CHF	2021				2020 ¹			
	Quoted	Unquoted	Total	%	Quoted	Unquoted	Total	%
Equity instruments	591	0	591	27	496	0	496	26
Debt instruments								
– Investment-grade (AAA to BBB)	769	0	769		721	0	721	
– Non-investment-grade (below BBB)	43	0	43		26	0	26	
	812	0	812	37	747	0	747	38
Real-estate	151	102	253	12	133	97	230	12
Cash and cash equivalents	55	0	55	3	65	0	65	3
Other	456	4	460	21	393	9	402	21
	2,065	106	2,171	100	1,834	106	1,940	100

¹ The 2020 plan assets only include pension plans of continuing operations

Note 25

Share-Based Payments

Long-Term Incentive Plan (LTIP)

History and Participation

The LTIP is an equity-based plan introduced in 2006 for the Executive Committee and senior managers.

Objective

The LTIP is designed to align the interests of participants with those of Lonza's shareholders and serves as a retention tool. LTIP participants are eligible to receive Lonza shares at the end of the vesting period, provided that certain challenging performance conditions are met at the end of the three-year performance period.

Equity Awards

Under the LTIP, participants are awarded the right to receive a number of Lonza registered shares in the future. Depending on the job grade of the participant, the target equity award grant is between 10% and 150% of the annual base salary. The grant is awarded at target and the payout level ranges from 0% and 200% of target. The CEO and Executive Committee members have a target of 150% and 125% of base salary respectively with payout levels also ranging from 0% and 200% of target.

For any pro-rata treatment, as outlined in the relevant Plan Rules, the entire length of the three-year performance period is utilized. The LTIP plan design and target setting is determined at the beginning of the three-year performance period. For 2021 the plan design included minimum, target and stretch (maximum) goals.

The 2021 LTIP budget value for the Executive Committee was approved as submitted at the AGM 2021 and administered in accordance with this approval. Vesting is dependent on the achievement of the performance conditions and cannot exceed the 200% of target equity awards granted (the maximum level of award).

Restriction and Vesting

Participants only receive title and ownership of the shares after the completion of the relevant three-year vesting period and only if the performance metrics required for vesting are partially or fully met.

Overview of Vesting Conditions for 2021 LTIP

For the 2021 LTIP the performance metrics were CORE earnings per share (EPS) and return on invested capital (ROIC) with 50% weight for each measure. With the payout value directly linked to these key financial metrics, these two measures focus on Lonza's financial performance that will drive the valuation and performance of Lonza.

The Nomination and Compensation Committee (NCC) deems these long-term performance measures appropriate to align the interests of the Executive Committee with Lonza's financial performance and in turn the interests of our Shareholders. The respective performance targets at the threshold (50%), target (100%) and maximum (200%) payout levels were recommended by the NCC and approved by the Board of Directors in April 2021. These financial performance targets for the 2023 year end are commercially sensitive at this time and will not be disclosed publicly until after the awards have vested. The overall value of the LTIP is ultimately driven by the share price at the time of vesting, further linking the LTIP to the interests of the shareholders.

CORE EPS Approved at AGM 2021 (LTIP 2021)

The 2021 LTIP award threshold performance level was determined to be a double digit percentage above the CORE EPS threshold performance level for the 2020 LTIP award. The maximum performance level was determined to be above the 2023 Mid-Term Guidance and is a double-digit percentage figure above threshold performance levels.

ROIC Approved at AGM 2021 (LTIP 2021)

This measure is a reflection of the effect of decisions taken by Executive Committee members and senior management over the course of the relevant LTIP performance period. The 2021 LTIP award threshold performance level was determined to be 113% of the ROIC threshold performance level set for the 2020 LTIP award. The maximum performance level was determined to be above the 2023 Guidance and is a double-digit percentage figure above threshold performance levels.

Treatment of LTIP in Change of Control Situations

Under the LTIP rules, if a Change of Control occurs, all unvested granted shares shall immediately vest and the granted price shall be the price at which the shares are sold in the transaction resulting in the Change of Control.

Actual Performance and Payout for the LTIP 2019

Performance under the LTIP 2019 exceeded target performance levels for both CORE EPS and ROIC. This generated a 200% and 185% payout on each of these measures respectively. With a 50% weighting applied to the two performance measures, the total 2019 LTIP payout equaled 193%. See [page 192](#) from Remuneration Report for full details on targets and target achievements.

Lonza Restricted Share Unit Plan (LRSP)

Participation and Objective

The LRSP is an equity-based plan introduced in 2020. It was created as a tool to primarily support retention cases across the business in conjunction with key strategic projects. All employees above a grade 10 in the organization are eligible to be considered for an award. Executive Committee members may receive awards via the Executive Committee Appointments Policy only – see [page 208](#) from the Remuneration Report for full details.

Equity Awards

Under the LRSP, participants are awarded the right to receive a number of Lonza registered shares in the future subject to continued employment with Lonza. The equity award level depends on the grade of the participant or the strategic importance of the project that the participant is working on. A two to five year vesting period will apply depending on the requirements.

Restriction and Vesting

Participants will only receive title and ownership of the shares after a relevant vesting period has elapsed and subject to sustained performance and continued employment over time.

The fair value at grant date of the equity awards granted in

Details of Long-Term Incentive Plans

	Grant Date	Share Price in CHF	Granted Equity Awards	Fair Value at Grant Date in CHF	Vesting Date
LTIP 2018	01.02.2018	258.90	106,893	27,674,598	31.01.2021
LTIP 2019	01.02.2019	261.90	110,026	28,815,809	31.01.2022
LTIP 2020	01.02.2020	396.20	70,985	28,124,257	31.01.2023
LTIP 2021	29.01.2021	570.00	51,629	29,428,530	31.01.2024
LRSP 2020	02.11.2020	554.80	4,124	2,287,995	various
LRSP 2021	various	various	4,523	2,974,916	various

In 2021, 8 new LRSP plans were issued, for a total of 4,523 shares and an aggregated fair value at grant date of CHF 2,974,916. Vesting period of those plans is between 2 and 4 years.

Vesting Conditions at Grant Date

	Market Price in CHF	Granted Equity Awards	Fair Value of Equity Awards in CHF	Expected EPS / RONOA / ROIC at Grant Date	Probability Minimum Targets	Volatility Employees	Total Probability	Total Cost at Grant Date in CHF
LTIP 2018 ROIC	258.90	53,447	258.90	120%	100%	10%	90%	14,944,423
LTIP 2018 CORE EPS	258.90	53,446	258.90	120%	100%	10%	90%	14,944,143
LTIP 2019 ROIC	261.90	55,013	261.90	115%	100%	10%	90%	14,912,181
LTIP 2019 CORE EPS	261.90	55,013	261.90	115%	100%	10%	90%	14,912,181
LTIP 2020 ROIC	396.20	35,492	396.20	100%	100%	10%	90%	12,655,737
LTIP 2020 CORE EPS	396.20	35,493	396.20	100%	100%	10%	90%	12,655,916
LTIP 2021 ROIC	570.00	25,932	570.00	100%	100%	10%	90%	13,303,116
LTIP 2021 CORE EPS	570.00	25,931	570.00	100%	100%	10%	90%	13,302,603

Development within 2021 of the LTIP

	Equity awards outstanding 01.01.2021	Equity awards granted during 2021	Equity awards forfeited during 2021	Vested equity awards during 2021	Equity awards outstanding 31.12.2021
LTIP 2018	92,738	0	(2,877)	(89,861)	0
LTIP 2019	98,267	0	(9,378)	0	88,889
LTIP 2020	64,628	0	(10,155)	0	54,473
LTIP 2021	0	51,863	(3,084)	(7,188)	41,591
Total equity awards	255,633	51,863	(25,494)	(97,049)	184,953

The vested equity awards during 2021 of (7,188) are related to plan participants of the divested Lonza Specialty Ingredients business. According to the LTIP 2021 plan rules, sections 6 (e) and 15, the awards vested and got cash-settled in July 2021 upon closing of the transaction.

Development within 2020 of the LTIP

	Equity awards outstanding 01.01.2020	Equity awards granted during 2020	Equity awards forfeited during 2020	Vested equity awards during 2020	Equity awards outstanding 31.12.2020
LTIP 2017	93,710	0	(48)	(93,662)	0
LTIP 2017 Capsugel	70,794	945	0	(71,739)	0
LTIP 2018	100,160	0	(7,422)	0	92,738
LTIP 2019	109,501	0	(11,234)	0	98,267
LTIP 2020	0	70,985	(6,357)	0	64,628
Total equity awards	374,165	71,930	(25,061)	(165,401)	255,633

2021 for the LTIP was CHF 570.00 (2020: CHF 396.20). The fair value at grant date for the LRSP awards in 2021 was between CHF 540.67 and CHF 737.33 depending on the grant date of the award. The costs were calculated using the market price at grant date, including probabilities as per conditions of vesting. The amounts for equity awards are expensed on a straight-line basis over the vesting period, based on estimates of equity awards that will eventually vest.

Compensation of the Board of Directors Objective and Market Benchmarking

In accordance with their respective duties and responsibilities, compensation levels for the Board of Directors are set at the median of the benchmarking peer group. The benchmarking peer group consists of Swiss companies of various sectors that are comparable in type of business, complexity of operations, size and global presence to Lonza. The Board of Directors regularly review the compensation of its members, including the Chairperson, based on a proposal by the Nominations and Compensation Committee and on advice from an independent advisor, including relevant benchmarking information.

Structure and Level of Compensation

The Chairperson of the Board of Directors and its Members receive their compensation as 50% in Lonza Group shares and 50% in cash. This was paid in quarterly installments during the 2021 financial year.

The number of shares granted for Board of Directors' compensation is based on the average closing share price of the last five business days of each quarter. Share restrictions lapse after three years from the grant date. Shares are eligible for a dividend. This structure of Board of Directors' compensation is closely aligned with our Shareholders' interests. The members of the Board of Directors do not receive variable compensation. The members of the Board of Directors are reimbursed for travel and other related expenses associated with their responsibilities as members of the Board of Directors of Lonza.

The position and associated compensation of the Chairperson of the Board of Directors and its members was approved by shareholders at the 2021 Annual General Meeting (AGM). This reflects compensation levels and structure which are unchanged compared to the previous year.

Compensation Components

For the period from the AGM 2021 to the AGM 2022, the members of the Board of Directors receive fixed gross compensation for Board of Directors' membership and additional compensation for Committee Chairperson and committee members as described in the table below.

The compensation of the Chairperson of the Board of Directors

includes compensation as a member of the Innovation and Technology Committee of the Board of Directors.

Further, the compensation of the Committee Chairperson amounts to CHF 280,000 and includes the committee membership fee. In the case of multiple committee memberships, this attracts one committee membership fee only. The additional responsibilities of Vice-Chairperson do not attract any additional fees.

Board of Directors

Compensation Board of Directors Annual General Meeting (AGM) 2021 to 2022 (excluding social security contributions)

In CHF	Base annual fee	Committee membership fee	Committee Chairperson fee
Chairperson of the Board of Directors¹	600,000	–	–
Board of Directors Member²	200,000	40,000	80,000

The additional responsibilities of Vice-Chairperson and Lead Independent Director³ do not attract any additional fees

Form of payout 50% in Lonza Group shares and 50% in cash. This is paid in quarterly installments during the 2020 financial year

¹ The compensation of the Chairperson of the Board of Directors includes compensation as a member of the Innovation and Technology Committee of the Board of Directors
² The compensation for Committee Chairpersons amounts to CHF 280,000 and includes the committee membership fee. In the case of multiple committee memberships, this attracts one committee membership fee only

³ The roles and responsibilities of such Vice-Chairperson are in line with sect. 19 para. 2 of the Swiss Code of Best Practice for Corporate Governance, requiring adequate control mechanisms, and commensurate to such position

Development of Compensation for Board of Directors in 2021

Grant Date	Total Number of Shares	Share Price in CHF	Fair Values of Shares in CHF	Cash ¹ in CHF	Total in CHF	Blocked Until
31.03.2021	551	539.44	297,231	300,000	597,231	31.03.2024
30.06.2021	449	662.24	297,346	299,940	597,286	30.06.2024
30.09.2021	420	711.24	298,721	300,000	598,721	30.09.2024
31.12.2021	392	759.24	297,622	300,000	597,622	31.12.2024
Total	1,812	657.24	1,190,920	1,199,940	2,390,860	

¹ Excluding social security and withholding tax

The amount of CHF 2,390,860 was recognized as an expense in the year 2021.

Recognition in the Consolidated Financial Statements

All of the equity-settled share-based payments had an impact on the 2021 "Profit before income taxes" amounting to an expense of CHF 45 million (2020: CHF 45 million).

Development of Compensation for Board of Directors in 2020

Grant Date	Total Number of Shares	Share Price in CHF	Fair Values of Shares in CHF	Cash ¹ in CHF	Total in CHF	Blocked Until
31.03.2020	839	390.30	327,462	330,000	657,462	31.03.2023
30.06.2020	600	496.92	298,152	300,000	598,152	30.06.2023
30.09.2020	523	568.12	297,127	300,000	597,127	30.09.2023
31.12.2020	530	564.04	298,941	300,000	598,941	31.12.2023
Total	2,492	490.24	1,221,682	1,230,000	2,451,682	

¹ Excluding social security and withholding tax

The amount of CHF 2,451,682 was recognized as an expense in the year 2020.

Development of Compensation for Board of Directors in 2019

Grant Date	Total Number of Shares	Share Price in CHF	Fair Values of Shares in CHF	Cash ¹ in CHF	Total in CHF	Blocked Until
31.03.2019	1,203	297.34	357,700	360,000	717,700	31.03.2022
30.06.2019	1,005	326.56	328,193	330,000	658,193	30.06.2022
30.09.2019	970	338.44	328,287	330,000	658,287	30.09.2022
31.12.2019	926	353.68	327,508	330,000	657,508	31.12.2022
Total	4,104	326.92	1,341,687	1,350,000	2,691,687	

¹ Excluding social security and withholding tax

The amount of CHF 2,691,687 was recognized as an expense in the year 2019.

Development of Compensation for Board of Directors in 2018

Grant Date	Total Number of Shares	Share Price in CHF	Fair Values of Shares in CHF	Cash ¹ in CHF	Total in CHF	Blocked Until
31.03.2018	1,537	225.84	347,116	348,750	695,866	31.03.2021
30.06.2018	1,368	262.58	359,209	360,000	719,209	30.06.2021
30.09.2018	1,091	329.54	359,528	360,000	719,528	30.09.2021
31.12.2018	1,369	261.62	358,158	360,000	718,158	31.12.2021
Total	5,365	265.43	1,424,011	1,428,750	2,852,761	

¹ Excluding social security and withholding tax

The amount of CHF 2,852,761 was recognized as an expense in the year 2018.

Note 26 Changes in Shares and Share Capital Movements

Effect in million CHF	31.12.2021	Change in year	31.12.2020	Change in year	31.12.2019
Total number of shares	74,468,752	0	74,468,752	0	74,468,752
Treasury shares					
Free shares	(279,623)	(93,943)	(185,680)	(5,730)	(179,950)
Total treasury shares	(279,623)	(93,943)	(185,680)	(5,730)	(179,950)
Total shares ranking for dividend at 31 December	74,189,129	(93,943)	74,283,072	(5,730)	74,288,802
Share capital movements					
Share Capital in CHF	74,468,752	0	74,468,752	0	74,468,752

The share capital on 31 December 2021 comprised 74,468,752 registered shares (2020: 74,468,752) with a par value of CHF 1 each, amounting to CHF 74,468,752 (2020 CHF 74,468,752).

Contingent Capital The share capital of Lonza Group Ltd may be increased through the issuance of a maximum of 7,500,000 fully paid in registered shares with a par value CHF 1 each up to a maximum aggregate amount of CHF 7,500,000.

Authorized Capital The Board of Directors shall be authorized to increase, at any time until 6 May 2023, the share capital of the Lonza Group Ltd through the issuance of a maximum of 7,500,000 fully paid in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 7,500,000. The capital increases in the form of contingent capital and authorized capital may increase the share capital of Lonza Group Ltd by a maximum aggregate amount of CHF 7,500,000. The details and conditions are set out in Articles 4^{bis} to 4^{quater} of the Company's Articles of Association.

At 31 December 2021, Lonza Group Ltd had a fully paid in registered capital of CHF 74,468,752 and a contingent capital of CHF 7,500,000.

Reserves in the amount of CHF 37,234,376 (2020: CHF 37,234,376) included in the financial statements of the parent company cannot be distributed.

Dividend On 6 May 2021, at the Annual General Meeting, shareholders approved the distribution of a dividend of CHF 3.00 per share in respect of the 2020 financial year (financial year 2019: CHF 2.75). The dividend distribution totaled CHF 223 million (2020: CHF 204 million), equally recorded against the retained earnings (112 million) and the reserves from capital contribution of Lonza Group Ltd (111 million). A dividend payment per share of CHF 3.00 is proposed by the Board of Directors to be made after the 31 December 2021 balance sheet date, subject to approval by the shareholders at the Annual General Meeting on 5 May 2022.

Note 27

Earnings Per Share

	2021	2020
Weighted average number of outstanding shares (basic)		
Weighted average number of outstanding shares	74,255,891	74,403,508
Weighted average number of outstanding shares (diluted)		
Weighted average number of outstanding shares	74,255,891	74,403,508
– Adjustments for dilutive share units and shares	234,215	305,541
Weighted average number of shares for diluted earnings per share	74,490,106	74,709,049

million CHF	2021			2020		
	Continuing operations	Discontinued operations	Total	Continuing operations	Discontinued operations	Total
Profit for the period (equity holders of the parent)	674	2,270	2,944	730	139	869
Basic earnings per share in CHF	9.08	30.57	39.65	9.81	1.87	11.68
Diluted earnings per share in CHF	9.05	30.47	39.52	9.77	1.86	11.63
Dividends paid for the period¹			223			204
Dividends per share for the period in CHF			3.00			2.75
Dividends declared after the balance sheet date			223			223
Dividends per share declared after the balance sheet date in CHF			3.00			3.00

¹ Excluding dividends of CHF 2 million (2020: CHF 2 million) paid to minority shareholders of a subsidiary

Note 28

Related Parties

Identity of Related Parties

The Group has a related-party relationship with associates, joint ventures (see [note 9 and 33](#)), pension and other post-retirement plans (see [note 24](#)) as well as with the Board of Directors and the members of the Executive Committee.

Transactions with Key Management Personnel Board of Directors

In 2021 payments to acting members of the Board of Directors of Lonza Group Ltd totaled CHF 2,517 million (2020: CHF 2.590 million²), 47.32% (2020: 47.16%) of which was received in the form of shares. The Director fees are paid 50% in cash and 50% in shares; the value of the employer's social security contributions is added to the cash payments. The value of the share-based fees is determined based on the average closing share price of the last five business days of each quarter. Shares are restricted for a period of three years from each award date and are eligible for a dividend from date of award.

Members of the Board of Directors and their immediate relatives control in 2021 48,159 (2020: 46,209) or 0.06% (2020: 0.06%) of the voting shares of Lonza Group Ltd. None of the Directors owns shares in the Group's subsidiaries or associates.

Executive Committee Compensation

The acting members of the Executive Committee received, for their contributions and time served in 2021, CHF 8,856 million^{1,2} (2020: CHF 5.138 million^{1,2}) in cash and additional benefits. Share based compensation includes 8,713 LTIP shares and 2,305 LRSP (Lonza Restricted Share Unit Plan) shares granted (2020: 7,397 LTIP shares and 4,124 LRSP shares) and the value of share based STIP payments, equivalent to a total value of CHF 1,585 million (2020: CHF 5.452 million). In 2021 termination benefits were paid out to a departing member of the Executive Committee according to the employment agreement and plan rules equal to CHF 0.357 million (CHF 0.169 million in cash and in shares equivalent to a value of CHF 0.188 million). In 2020 termination benefits were paid out to the departing and former members of the Executive Committee according to their employment agreements equal to CHF 3.498 million (CHF 2.971 million in cash and in shares equivalent to a value of CHF 0.527 million).

The compensation for the Board of Directors and the Executive Committee (termination benefits included) was as follows:

Million CHF	2021	2020
Short-term benefits ¹	8.092	5.298
Post-employment benefits and other benefits ²	2.090	1.208
Share-based payments ³	9.442	6.674
Other compensation ⁴	0.357	3.498
Total	19.981	16.678

¹ Including short-term incentive payout in March of the following year

² Including employer contribution for social security and pension funds

³ Share based STIP and LTIP awards. Also, in line with the Executive Committee Appointments Policy, awards have been made to an Executive Committee member in 2021 under the Lonza Restricted Share Unit Plan (LRSP), to compensate for time-based equity awards which were forfeited when leaving the previous employer. This award was made in accordance with Article 23 (Supplementary Amount in the Event of Changes in the Executive Committee) of Lonza's Articles of Association. The award will vest after two and three-year periods, subject to continued employment, sustained performance and clawback, under the Clawback Policy

⁴ Cash payment (including base salary, other benefits, short-term incentive and social security) and shares (LTIP) received by departed members of the Executive Committee during 2021 and 2020



Note 29

Financial Risk Management

29.1

Overall Risk Management Policy

Lonza is exposed in particular to credit and liquidity risk, as well as to risks from movements in foreign currency exchange rates, interest rates and market prices that affect its assets, liabilities, and forecasted transactions.

Lonza's overall risk management policy aims to limit these risks through operational and finance activities.

The Board of Directors has overall responsibility for the establishment and oversight of Lonza's risk management framework. Financial risk management is carried out by a central treasury department (Group Treasury). Group Treasury is responsible for implementing the policy, and identifies, evaluates and hedges financial risks in close cooperation with Lonza's business units. Group Treasury also has the sole responsibility for carrying out foreign exchange transactions and executing financial derivative transactions with third parties.

Lonza's risk management policies are established to identify and analyze the risks faced by Lonza, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and Lonza's activities. The Lonza Audit Committee oversees how management monitors compliance with Lonza's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by Lonza. The Lonza Audit Committee is assisted in its oversight role by Internal Audit (Lonza Audit Services). Internal Audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit Committee.

29.2

Credit Risk

Credit risk is the risk of financial loss to Lonza if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and mainly arises from Lonza's receivables from customers.

Accounts Receivables

Lonza's exposure to credit risk is influenced mainly by the individual characteristics of each customer. Risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. In monitoring customer credit risk, customers are grouped according to their credit characteristics, including geographic location, industry, and existence of previous financial difficulties.

Purchase limits are established for each customer, which are reviewed regularly. For customers domiciled in specific countries with high risk, Lonza has credit risk insurance covering the maximum exposure. The maximum credit risk is equal to the carrying amount of the respective assets. There are no commitments that could increase this exposure to more than the carrying amounts. In general, Lonza does not require collateral in respect of trade and other receivables, but uses credit insurance for country risk where appropriate.

Lonza has a history of low credit losses on accounts receivable. Credit losses that occurred in the past were primarily related to very few single customers. Furthermore, none of Lonza's businesses had a heightened exposure to credit losses in the past and based on Lonza's best estimate this is not expected to change in the foreseeable future.

Consequently, the bad debt allowance (see [note 11](#)) represents primarily the credit risk of specific customers.

Aging of Trade Receivables¹

million CHF	2021	2020
Not past due	819	627
Past due 1-30 days	57	40
Past due 31-120 days	40	31
Past due more than 120 days	24	31
Total	940	729

¹ Excluding allowances for credit losses (see [note 11](#)) and based on trade receivables of continuing operations

Financial Instruments and Cash Deposits

Financial Instruments and Cash Deposits Credit risk from balances with banks and financial institutions is managed by the Group's treasury department. Counterparty credit ratings are reviewed regularly. The carrying amount of financial assets represents the maximum credit exposure.

The maximum exposure to credit risk at the reporting date was as follows:

million CHF	Notes	2021	2020
Trade receivables, net	11	928	715
Other receivables	12	81	87
Accrued income	3	127	185
Non-current loans and advances	8	177	162
Short-term investments at amortized costs	15	1,357	0
Cash and cash equivalents	13	1,582	495
Total financial assets at amortized cost		4,252	1,644
Financial assets at fair value			
Derivative financial instruments	29.5	41	37
Short-term investments at fair value through profit or loss	15	245	0
Contingent consideration from sale of business	29.6	0	14
Total financial assets at fair value		286	51
Total financial assets		4,538	1,695

¹ included in 'Other receivables, prepaid expenses and accrued income' (see [note 12](#))

29.3 Liquidity Risk

Liquidity risk is the risk that Lonza will not be able to meet its financial obligations as they fall due. Lonza's approach to managing liquidity is to ensure that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to Lonza's reputation. Group Treasury maintains flexibility in funding also using bilateral and syndicated credit lines. Lonza has concluded the following lines of credit: Committed credit lines of CHF 1,000 million (CHF 0 million used as of 31 December 2021), which are committed for up to five years and uncommitted credit lines of CHF 136 million (CHF 0 used as of 31 December 2021).

The table below analyses the Group's financial liabilities and derivative financial liabilities in relevant maturity groupings, based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows, including interest payments. Balances due within 12 months are equal to their carrying balances, as the impact of discounting is not significant.

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million CHF	Carrying amount	Contractual cash flows ¹	Between 0 and 6 months	Between 7 and 12 months	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 5 years	Over 5 years
Straight bond (2012-2022)	105	108	0	108	0	0	0	0
Straight bond (2015-2023)	175	179	0	2	177	0	0	0
Straight bond (2017-2024)	110	113	0	1	1	111	0	0
Straight bond (2020-2023)	299	305	3	0	302	0	0	0
Straight bond (2020-2026)	150	155	0	1	1	1	152	0
Euro bond (2020-2027)	512	561	8	0	8	8	17	520
German private placement	240	246	1	2	196	47	0	0
Term loan	635	677	6	6	13	467	185	0
Other debt due to others	177	210	62	1	2	2	24	119
Total debt	2,403	2,554	80	121	700	636	378	639
Other non-current liabilities	312	378	0	0	72	32	58	216
- of which lease liabilities	296	362	0	0	56	32	58	216
Other current liabilities	840	849	830	19	0	0	0	0
- of which lease liabilities	50	59	40	19	0	0	0	0
Trade payables	483	483	483	0	0	0	0	0
Derivative financial instruments	49	49	31	6	3	9	0	0
Contingent consideration	27	32	4	0	5	18	0	5
Total financial liabilities	4,114	4,345	1,428	146	780	695	436	860

¹ Including interest payments

Year ended

31 December 2020

million CHF	Carrying amount	Contractual cash flows ¹	Between 0 and 6 months	Between 7 and 12 months	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 5 years	Over 5 years
Straight bond (2012-2022)	105	111	0	3	108	0	0	0
Straight bond (2015-2023)	175	181	0	2	2	177	0	0
Straight bond (2016-2021)	250	250	0	250	0	0	0	0
Straight bond (2017-2021)	125	125	0	125	0	0	0	0
Straight bond (2017-2024)	110	114	0	1	1	1	111	0
Straight bond (2020-2023)	299	308	3	0	3	302	0	0
Straight bond (2020-2026)	150	155	0	1	1	1	1	151
Euro bond (2020-2027)	535	596	9	0	9	9	17	552
German private placement	1,021	1,052	4	360	142	412	134	0
Term loan	612	628	1	1	3	3	620	0
Other debt due to banks and financial institutions	6	6	6	0	0	0	0	0
Other debt due to others	192	212	59	1	21	1	19	111
Total debt	3,580	3,738	82	744	290	906	902	814
Other non-current liabilities	212	266	0	0	31	29	51	155
- of which lease liabilities	210	264	0	0	29	29	51	155
Other current liabilities	691	698	683	15	0	0	0	0
- of which lease liabilities	24	31	16	15	0	0	0	0
Trade payables	308	308	308	0	0	0	0	0
Derivative financial instruments	29	29	4	0	0	9	16	0
Contingent consideration	28	30	0	4	5	17	0	4
Total financial liabilities	4,848	5,069	1,077	763	326	961	969	973

¹ Including interest payments

29.4 Market Risk

Market risk is the risk that changes in market prices will affect Lonza's income or the value of its holdings of financial instruments. Lonza is exposed to market risk from changes in currency exchange and interest rates. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return on risk. Lonza has established a treasury policy of which the objective is to reduce the volatility relating to these exposures. Lonza enters into various derivative transactions based on Lonza's treasury policy that establishes guidelines in areas such as counterparty exposure and hedging practices. Counterparties to agreements are major international financial institutions with at least investment grade rating. Positions are monitored using techniques such as market value and sensitivity analyses. All such transactions are carried out within the guidelines set by the Audit Committee.

Foreign Exchange Risk

The Group operates across the world and is exposed to movements in foreign currencies affecting the Group financial result and the value of Group equity. Foreign exchange risk arises because the amount of local currency paid or received for transactions denominated in foreign currencies may vary due to changes in exchange rates ("transaction exposures") and because the foreign currency denominated financial statements of the Group's foreign subsidiaries may vary upon consolidation into the Swiss-franc-denominated Group Financial Statements ("translation exposures"). Foreign exchange risks arise primarily on transactions that are denominated in USD, EUR and GBP.

In managing its exposure regarding the fluctuation in foreign currency exchange rates, Lonza has entered into a variety of currency swaps and forward contracts. These agreements generally include the exchange of one currency against another currency at a future date. Lonza adopts a policy of considering hedging for all the committed contractual exposure. The planned exposure is hedged within certain ranges. Hedge ratios are determined by the risk committee and depend on market expectation, risk bearing ability and risk appetite.

The table below shows the impact on post-tax profit if at 31 December a currency had strengthened (+) or weakened (-) versus the Swiss franc, with all other variables held constant as a result of the currency exposures outlined in the tables below:

million CHF	Sensitivity	Post-tax profit			
		2021		2020	
		+	-	+	-
USD	+ / - 10%	(7.4)	7.4	(1.3)	1.3
EUR	+ / - 10%	1.2	(1.2)	7.2	(7.2)
GBP	+ / - 10%	(0.9)	0.9	1.3	(1.3)

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The summary quantitative data relating to the Group's exposure to currency risks as reported to the management of the Group is as follows:

Year ended

31 December 2021

million CHF	USD	GBP	EUR	SGD	Other	Total
Other investments	0	0	0	0	0	0
Non-current financial assets	7	0	3	0	0	10
Trade receivables, net	314	94	72	2	24	506
Other receivables, prepaid expenses and accrued income	0	0	1	0	0	1
Short-term investments	182	0	0	0	0	182
Cash and cash equivalents	263	173	18	7	15	476
Non-current and current debt	(685)	0	(194)	0	0	(879)
Other current and non-current liabilities	(28)	(0)	(1)	(4)	1	(32)
Trade payables	(215)	(39)	(85)	(8)	(55)	(401)
Net group internal loans	422	3	231	23	96	775
Gross balance sheet exposure	261	231	45	21	82	639
Currency-related instruments	(345)	(241)	(30)	(24)	(92)	(732)
Net exposure	(84)	(10)	14	(3)	(10)	(93)

Year ended

31 December 2020

million CHF	USD	GBP	EUR	SGD	Other	Total
Other investments	15	0	1	0	0	16
Non-current financial assets	3	0	14	0	0	17
Trade receivables, net	122	41	32	3	5	203
Other receivables, prepaid expenses and accrued income	19	27	2	3	0	51
Cash and cash equivalents	34	10	43	7	21	115
Non-current and current debt	(883)	0	(747)	0	0	(1,630)
Other current and non-current liabilities	(41)	(2)	(8)	(32)	(4)	(87)
Trade payables	(55)	(1)	(5)	(12)	0	(73)
Net group internal loans	1,641	(13)	346	0	0	1,974
Gross balance sheet exposure	855	62	(322)	(31)	22	586
Currency-related instruments	(869)	(48)	402	(24)	0	(539)
Net exposure	(14)	14	80	(55)	22	47

The following exchange rates were applied during the year:

Balance Sheet Year-End Rates	2021	2020
Dollar	0.9128	0.8813
Euro	1.0340	1.0829
Pound sterling	1.2336	1.2035
Renminbi	0.1436	0.1347
Singapore dollar	0.6764	0.6665

Income Statement Year-Average Rates	2021	2020
Dollar	0.9144	0.9386
Euro	1.0814	1.0705
Pound sterling	1.2579	1.2042
Renminbi	0.1418	0.1360
Singapore dollar	0.6804	0.6805

Interest Rate

Risk arises from movements in interest rates which could affect the Group financial result or the value of Group equity. Changes in interest rates may cause variations in interest income and expense. In addition, they may affect the market value of certain financial assets, liabilities and hedging instruments. The primary objective of the Group's interest rate management is to protect the net interest result.

Lonza's policy is to manage interest cost using a mix of fixed and variable rate debt. Group policy is to maintain at least 50% of its borrowings in fixed-rate instruments. In order to manage this mix in a cost-efficient manner, Lonza enters into interest rate swaps and cross-currency interest rate swaps to exchange at specified intervals, the difference between fixed and variable interest amounts calculated by reference to a corresponding notional principal amount. Lonza adopts a policy of having one third of the debt on a short-term basis and two-thirds of the debt on a long-term basis. The mix between floating and fixed rates depends on the market view of Lonza.

Lonza's exposure to interest rate risk was as follows:

million CHF	Notes	2021	2020
Net Debt / (cash)	15	(958)	2,813
Net debt at fixed interest rates ¹		(1,421)	(2,573)
Interest risk exposure		(2,379)	240

¹ Including effects from cross currency interest rate swaps

In 2021, if the interest rates had increased / decreased by 1%, with all other variables held constant, post-tax profit would have been CHF 21.2 million higher / lower.

In 2020, if the interest rates had increased / decreased by 1%, with all other variables held constant, post-tax profit would have been CHF 2.2 million lower / higher.

29.5 Overview of Derivative Financial Instruments

The following table shows the contract or underlying principal amounts and fair values of derivative financial instruments by type of contract at 31 December 2021 and 2020. Contract or underlying principal amounts indicate the volume of business outstanding at the balance sheet date and do not represent amounts at risk. The fair values are determined by using the difference of the prices fixed in the outstanding derivative contracts from the actual market conditions which would have been applied at the year-end if we had to recover these trades.

Financial Instruments at Fair Value Through Profit or Loss

million CHF	Contract or underlying principal amount		Positive fair values		Negative fair values		Total net fair values	
	2021	2020	2021	2020	2021	2020	2021	2020
Currency-related instruments	10,880	1,583	27	37	(24)	(4)	3	33
Total financial instruments at fair value through profit or loss	10,880	1,583	27	37	(24)	(4)	3	33

Financial Instruments Effective for Hedge-Accounting Purposes

million CHF	Contract or underlying principal amount		Positive fair values		Negative fair values		Total net fair values	
	2021	2020	2021	2020	2021	2020	2021	2020
Currency-related instruments	2,538	0	14	0	(12)	0	2	0
Interest-related instruments	402	388	0	0	(13)	(25)	(13)	(25)
Total financial instruments effective for hedge-accounting purposes	2,940	388	14	0	(25)	(25)	(11)	(25)

Offsetting of Financial Asset and Financial Liabilities

The Group enters into derivative transactions under International Swaps and Derivatives Association (ISDA) master netting agreements with the respective counterparties in order to mitigate counterparty risk. Under such agreements the amounts owed by each counterparty on a single day in respect of all transactions outstanding in the same currency are aggregated into a single net amount that is payable by one party to the other. The ISDA agreements do not meet the criteria for offsetting

in the balance sheet as the Group does not have a currently enforceable right to offset recognized amounts, because the right to offset is only enforceable on the occurrence of future events, such as a default or other credit events.

The following table sets out the carrying value of derivative financial instruments and the amounts that are subject to master netting agreements.

million CHF	Assets		Liabilities	
	2021	2020	2021	2020
Currency related instruments	41	37	(36)	(4)
Interest related instruments	0	0	(13)	(25)
Carrying value of derivative financial instruments	41	37	(49)	(29)
Derivatives subject to master netting agreements	(32)	(5)	32	5
Net amount	9	32	(17)	(24)

Positive fair values of derivatives are included as part of "Other receivables, prepaid expenses and accrued income". Negative fair values of derivatives are included as part of "Other current liabilities". Hedge accounting was applied to cash flow hedges on highly probable payments in foreign currencies.

29.6 Financial Instruments Carried at Fair Value

The Group applied the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

million CHF	Level 1	Level 2	Level 3	2021 Total fair value	Level 1	Level 2	Level 3	2020 Total fair value
Assets								
Short-term investments at fair value through profit or loss	245	0	0	245	0	0	0	0
Other investments	0	73	0	73	0	33	0	33
Derivative financial instruments	0	41	0	41	0	37	0	37
Contingent consideration related to sale of businesses	0	0	0	0	0	0	14	14
Liabilities								
Derivative financial instruments	0	(49)	0	(49)	0	(29)	0	(29)
Contingent consideration related to acquisition of businesses	0	0	(27)	(27)	0	0	(28)	(28)
Net assets and liabilities measured at fair value	245	65	(27)	283	0	41	(14)	27

In 2021 and 2020 there were no transfers between Level 1 and Level 2 fair value measurements.

Details of the determination of Level 3 fair value measurements are set out below:

Contingent Consideration Arrangements Related to Sale of Business

million CHF	2021	2020
At 1 January	14	20
Payments received	(13)	(6)
Currency translation effects	(1)	0
At 31 December	(0)	14

The agreement to sell the Peptides business includes a contingent consideration arrangement under which Lonza received a defined percentage of the net sales of the disposed business for the financial years 2017–2021. The contingent consideration was fully paid out at the end of 2021.

Contingent Consideration Arrangements Related to Acquisition of Businesses

million CHF	2021	2020
At 1 January	28	30
Payments made	(2)	(2)
Currency translation effects	1	0
At 31 December	27	28

Lonza is party to certain contingent consideration arrangements arising from business combinations. The fair values are determined considering the expected payments. The expected payments are determined by considering the possible scenarios of regulatory approvals and forecast sales, which are the most significant unobservable inputs. The estimated fair value would increase if the forecast sales were higher or if the likelihood of obtaining regulatory approval was higher. At 31 December 2021 the total potential payments under contingent consideration arrangements could be up to CHF 64 million, primarily related to the Octane acquisition (2020: CHF 62 million) whereas the estimated payments amounted to CHF 27 million at December 2021 (2020: CHF 28 million).

29.7

Carrying Amounts and Fair Values of Financial Instruments by Category

The carrying values less impairment provision of trade receivables are assumed to approximate to their fair values due to the short-term nature of trade receivables. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments. The fair value of interest rate swaps is calculated as the present

value of the estimated future cash flows. The fair value of forward foreign exchange contracts is determined using quoted forward exchange rates at the balance sheet date. The table below shows the carrying amounts and fair values of financial instruments by category.

million CHF	Financial instruments mandatorily at fair value through profit or loss	Fair value – hedging instruments	Financial assets at amortized cost	Financial liabilities at amortized cost	Carrying amount	Fair value
At December 2021						
Other investments	73	0	0	0	73	73
Trade receivables, net	0	0	928	0	928	928
Other receivables	0	0	81	0	81	81
Accrued income	0	0	127	0	127	127
Current advances	0	0	177	0	177	177
Short-term investments	245	0	1,357	0	1,602	1,602
Cash and cash equivalents	0	0	1,582	0	1,582	1,582
Contingent consideration from sale of business	0	0	0	0	0	0
Derivative financial instruments	0	41	0	0	41	41
Total financial assets	318	41	4,252	0	4,611	4,611
Debt						
– Straight bonds ¹	0	0	0	1,351	1,351	1,407
– Other debt	0	0	0	1,052	1,052	1,052
Current liabilities	0	0	0	840	840	840
Non-current liabilities	0	0	0	312	312	312
Trade payables	0	0	0	483	483	483
Contingent consideration	27	0	0	0	27	27
Derivative financial instruments	0	49	0	0	49	49
Total financial liabilities	27	49	0	4,038	4,114	4,170

¹ The fair value of straight bonds for disclosure purposes is Level 1 and is calculated based on the observable market prices of the debt instruments

million CHF	Financial instruments mandatorily at fair value through profit or loss	Fair value – hedging instruments	Financial assets at amortized cost	Financial liabilities at amortized cost	Carrying amount	Fair value
At December 2020						
Other investments	33	0	0	0	33	33
Trade receivables, net	0	0	715	0	715	715
Other receivables	0	0	87	0	87	87
Accrued income	0	0	185	0	185	185
Current advances	0	0	162	0	162	162
Short-term investments	0	0	0	0	0	0
Cash and cash equivalents	0	0	495	0	495	495
Contingent consideration from sale of business	14	0	0	0	14	14
Derivative financial instruments	0	37	0	0	37	37
Total financial assets	47	37	1,644	0	1,728	1,728
Debt						
– Straight bonds ¹	0	0	0	1,749	1,749	1,834
– Other debt	0	0	0	1,831	1,831	1,831
Current liabilities	0	0	0	691	691	691
Non-current liabilities	0	0	0	212	212	212
Trade payables	0	0	0	308	308	308
Contingent consideration	28	0	0	0	28	28
Derivative financial instruments	0	29	0	0	29	29
Total financial liabilities	28	29	0	4,791	4,848	4,933

¹ The fair value of straight bonds for disclosure purposes is Level 1 and is calculated based on the observable market prices of the debt instruments

29.8 Capital Management

The Board's policy is to maintain a strong capital base so as to retain investor, creditor and market confidence and to sustain future development of the business. The Board of Directors monitors both the demographic spread of shareholders and the return on capital, which Lonza defines as total shareholders' equity, excluding non-controlling interest, and the level of dividends to ordinary shareholders.

The Board seeks to maintain a balance between the higher returns that might be possible with higher levels of borrowing and the advantages and security afforded by a sound capital position. Lonza's target is to achieve a Return On Invested Capital (ROIC) in excess of 10% by 2022. In 2021, the return was 10.7% (2020 – restated: 9.1%, see further details in section [Alternative](#)

[Performance Measures](#)). In comparison, the weighted average interest expense on interest-bearing borrowings (excluding liabilities with imputed interest) was 1.42% (2020: 1.32%).

From time to time, Lonza purchases its own shares on the market; the timing of these purchases depends on market prices. Primarily, the shares are intended to be used for issuing shares under Lonza's share programs. Lonza does not have a defined share buy-back plan. Neither Lonza Group Ltd nor any of its subsidiaries is subject to externally imposed capital requirements.

Note 30 Share Ownership of the Members of the Board of Directors and the Executive Committee

Board of Directors

Based on information available to Lonza, the members of the Board of Directors and parties closely associated with them held, as of 31 December 2021: 48,159 (2020: 46,209)¹ registered shares of Lonza Group Ltd and controlled 0.06% (2020: 0.06%) of the share capital.

None of the members of the Board of Directors or Executive Committee owns shares in the Group's subsidiaries or associates.

Board of Directors¹

	Numbers of shares	
	2021	2020 ²
Albert M. Baehny	4,262	3,773
Werner Bauer	26,712	26,485
Angelica Kohlmann	1,065	870
Christoph Mäder	3,697	3,470
Barbara Richmond	3,657	3,462
Jürgen Steinemann	7,343	7,148
Olivier Verscheure	1,065	870
Dorothee Deuring	358	131
Total	48,159	46,209

¹ Spouse, children below 18, any legal entities that they own or otherwise control, or any legal or natural person who is acting as their fiduciary

² Moncef Slaoui was appointed to the Board of Directors at the 2020 AGM, however due to further commitments he stepped down from the Board of Directors soon after appointment

Executive Committee

The members of the Executive Committee and parties closely associated with them held, as of 31 December 2021: 4,660 (2020: 14,262) shares and controlled 0.01% (2020: 0.02%) of the share capital. The individual control rights are proportional to the holdings shown below.

Executive Committee¹

	Numbers of shares	
	2021	2020
Pierre-Alain Ruffieux ²	0	0
Stefan Stoffel	3,500	3,700
Caroline Barth	445	0
Claude Dartiguelongue ³	0	n/a
Gordon Bates ³	606	n/a
Jean-Christophe Hyvert ³	109	n/a
Philippe Deecke ⁴	0	n/a
Rodolfo Savitzky ⁵	n/a	10,562
Total	4,660	14,262

¹ All Executive Committee members active prior to 30 April 2020 have met or are in line to meet the shareholding guidelines

² Pierre-Alain Ruffieux commenced employment on 1 November 2020

³ Appointed to the Executive Committee on 1 April 2021

⁴ Appointed to the Executive Committee on 1 December 2021

⁵ Stepped down from the Executive Committee on 30 November 2021

Note 31

Enterprise Risk Management

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

- Step 1: Identification and assessment of risks through bottom-up risk scanning with individual risk owners in meetings and with surveys;
- Step 2: Consolidation, review and prioritization of risks by the cross-functional ERM team, including mapping of trends versus prior year;
- Step 3: Workshop with the leadership teams of each Executive Committee member reporting to the CEO and the Group General Counsel to review and finalize the ERM team's findings and document mitigation measures;
- Step 4: Presentation and discussion of consolidated enterprise risk overview and relevant mitigation measures to the Executive Committee;
- Step 5: Presentation and discussion of top risks and relevant mitigation measures to Board of Directors; and
- Step 6: Throughout the year, monitor status of mitigation measures.

Through this process, Lonza has identified 16 high-level thematic risk categories. An increased focus on Environmental, Social, and Governance (ESG) topics, as well as trends such as aging societies, growing populations and the increasing need for safe and abundant food are directly considered in the company's enterprise risk assessment. Alongside this, Lonza also includes climate, natural and environmental risks into its assessment.

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

- Actions to mitigate the probability and / or impact have been identified to address every individual risks component within each category which are reviewed on a quarterly basis with assigned risk owners to assess the status;
- The probability of occurrence is assessed for the period until year-end 2023, with a risk range from unlikely to highly probable; and
- Any potential negative effect of a risk is assessed according to its impact on the annual Group's EBIT, the Group's reputation and the Group's operations.

Risks have been identified for each division and for corporate functions. The risk scenarios identified in 2021 were presented to the Executive Committee and to the Board of Directors at their meetings in November and December 2021, respectively. Financial risk management is disclosed in note 29.

Note 32

Events after Balance Sheet Date

As of the date of issuance of these Consolidated Financial Statements, no significant subsequent events have occurred after the reporting period that might affect the Group and that should be included thereto.

Note 33

Principal Subsidiaries and Joint Ventures

Selection criteria: CHF 10 million net sales 3rd Parties, CHF 10 million total assets 3rd parties or more than 30 FTE

Name	Town/Country	Currency ¹	Share Capital	Holding Direct	Holding Indirect
BacThera AG	Visp CH	CHF	11,000,000		50%
Bend Research, Inc.	Portland US	USD	n/a ³		100%
BioAtrium AG	Visp CH	CHF	87,700,000		50%
Capsugel Australia Pty Ltd	Sydney AUS	AUD	6,368,270		100%
Capsugel Belgium NV	Bornem BE	EUR	236,921,555 ²	99.9% ²	0.1% ²
Capsugel Brasil Importação e Distribuição de Insumos Farmacêuticos e Alimentos Ltda.	Rio de Janeiro BR	BRL	74,976,852		100%
Capsugel Canada Corp.	Vancouver CA	CAD	n/a ³		100%
Capsugel de México, S. de R.L. de C.V.	Puebla ME	MXN	870,004,052		100%
Capsugel Distribucion, S. de R.L. de C.V.	Puebla ME	MXN	20,000,000		100%
Capsugel France SAS	Colmar FR	EUR	1,280,000		100%
Capsugel Healthcare Private Limited	Gurugram IN	INR	2,985,075,930		99.9% ²
Capsugel Manufacturing, LLC	Wilmington US	USD	n/a ³		100%
Capsugel, Inc.	Wilmington US	USD	10		100%
Komec Helsen N.V.	Bornem BE	EUR	62,000		100%
LLC Capsugel	Domodedovo (Moscow Region) RU	RUB	150,000		100%
Lonza (Thailand) Co., Ltd.	Bangkok TH	THB	170,000,000		100%
Lonza Biologics Inc	Wilmington US	USD	1,000		100%
Lonza Biologics Ltd.	Guangzhou CN	USD	45,000,000		100%
Lonza Biologics plc	Slough GB	GBP	14,500,000		100%
Lonza Biologics Porriño S.L.	Porriño ES	EUR	10,295,797 ²		100%
Lonza Biologics Tuas Pte. Ltd.	Singapore SG	SGD USD	172,000,000 25,000,000		100%
Lonza Bioscience SARL	Saint-Beauzire FR	EUR	8,848,695		100%
Lonza Bioscience Singapore Pte Ltd	Singapore SG	USD	1		100%
Lonza China Investments Co Ltd	Guangzhou CN	USD	84,000,000	100%	
Lonza Cologne GmbH	Cologne DE	EUR	1,502,000		100%
Lonza Consumer Health Inc.	Los Angeles US	USD	n/a ³		100%
Lonza Copenhagen ApS	Vallensbaek-Strand DK	DKK	150,000		100%
Lonza Costa Rica, S.A.	Heredia CR	CRC	10,000		100%
Lonza Finance International NV ⁴	Bornem BE	EUR	43,062,000	100%	
Lonza Guangzhou Pharmaceutical Ltd	Guangzhou CN	USD	133,578,892		100%
Lonza Houston Inc.	Wilmington US	USD	290 ²		100%
Lonza India Private Limited	Mumbai IN	INR	23,458,580		99.9% ²
Lonza K.K. ⁵	Sagamihara JP	JPY	100,000,000		100%
Lonza Netherlands B.V.	Maastricht NL	EUR	2,115,232		100%
Lonza Rockland, Inc.	Wilmington US	USD	100		100%
Lonza Sales AG	Basel CH	CHF	2,000,000	100%	
Lonza Shanghai International Trading Ltd.	Shanghai CN	USD	200,000		100%
Lonza Swiss Finanz AG ⁴	Basel CH	CHF	100,000	100%	
Lonza Swiss Licences AG	Basel CH	CHF	100,000	100%	
Lonza USA Inc.	Wilmington US	USD	5	100%	
Lonza Verviers SRL	Verviers BE	EUR	18,750		100%
Lonza Walkersville, Inc.	Wilmington US	USD	10		100%
Micro-Macinazione SA	Monteggio CH	CHF	1,000,000		100%
Octane Biotech, Inc.	Ontario CA	CAD	n/a ³		80%
P.T. Capsugel Indonesia	Jakarta IN	USD	59,300,769		99.9% ²
Powdersize LLC	Wilmington US	USD	n/a ³		100%
Suzhou Capsugel Limited	Suzhou CN	USD	29,700,000		75%
Xcelience LLC	Wilmington US	USD	n/a ³		100%

¹ Abbreviation of currencies in accordance with ISO standards

² Rounded amount

³ No par value

⁴ This entity does not meet above mentioned thresholds. It was included due to its significance for group financings

⁵ On 1 September 2021 Lonza KK merged into Capsugel Japan Inc. On the same date Capsugel Japan Inc. changed its corporate name into Lonza K.K.



Statutory Auditor's Report

To the General Meeting of Lonza Group Ltd, Basel

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Lonza Group Ltd and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2021 and the consolidated income statement, consolidated statement of comprehensive income, consolidated cash flow statement and consolidated statement of changes in equity for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law.

Basis for Opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters



Revenue recognition



Uncertain income tax positions and related tax expenses

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.



Revenue recognition

Key Audit Matter

The Group's recognition of revenue in a complete and accurate manner is exposed to various risks. There are two distinct risk factors that trigger revenue recognition as a key audit matter:

- custom manufacturing agreements, and
- linkage of certain of management's incentive compensation to annual revenue targets.

Due to market dynamics, the relevance of long-term product supply agreements with certain of the Group's customers is significant. Under these agreements, the Group constructs and launches new or reworked suites dedicated to client specific manufacturing, which are owned and operated by the Group to deliver the final product. Extending over multiple periods such agreements often include milestone and upfront payments as well as the rendering of project management services during the construction phase. To a certain degree the identification and measurement of distinct performance obligations and resulting revenue recognition is subject to management's judgment and understanding of the individual customer contract.

This gives rise to the risk that revenue could be misstated due to the incorrect identification and separation of contractual components and related performance obligations, resulting in an inappropriate timing of revenue recognition.

Performance targets embedded in management's compensation incentive plans based on financial results and achievement of targets are partially contingent on the timing of revenue recognition. There is a risk of fraud in revenue recognition due to the incentives management may feel to achieve the targeted results.

For further information on revenue recognition refer to the following:

- Note 1 Accounting Principles
- Note 3 Revenues

Our response

For significant existing, new and amended customer manufacturing agreements, we assessed the appropriateness of the identification and separation of distinct performance obligations and the timing of revenue recognition by making our own independent assessment. Furthermore, we challenged and assessed the qualification of performance obligations of significant new and amended contracts.

As a response to the risk of fraud in revenue recognition, we performed sample testing of revenue recorded during the year and focused on revenue transactions taking place before and after year-end as well as deferred revenue transactions to determine that revenue is recognized in the correct period. We tested the accuracy of revenues recorded, based on inspection of customer acceptance certificates, shipping documents, delivery notes and cash receipts. Furthermore, we tested manual journal entries on a sample basis and controls over the recording of revenue in the relevant IT systems.

We also performed audit procedures to assess the adequacy and accuracy of the Group's revenue recognition disclosures, as presented in the Group's consolidated financial statements.



Uncertain income tax positions and related tax expenses

Key Audit Matter

The Group operates in a complex multinational tax environment giving rise to cross-border transactions and complex taxation arrangements being subject to various country specific tax laws. During the normal course of business local tax authorities may challenge financing arrangements between Group entities, transfer-pricing arrangements relating to the Group's manufacturing and supply chain and the ownership of intellectual property rights.

During 2021, the Group continued to reorganize certain legal entities and implemented other measures in connection with the divestment of the Specialty Ingredients business as per July 1, 2021. This triggered certain income tax relevant transactions. These transactions and the LSI disposal itself required management to make certain assumptions and estimates related to the measurement and recognition of resulting income taxes.

The Group has also recognized provisions for other uncertain tax items, the estimation of which is subject to management's judgement.

Based on these complexities, uncertainties and management's judgment involved in estimating the income taxes, we identified the completeness and valuation of uncertain income tax positions and related tax expenses as a key audit matter.

Our response

Our audit approach included the use of local tax specialists in all key jurisdictions to evaluate tax provisions and potential exposures as of 31 December 2021.

In response to the implemented reorganization and the divestment of the Specialty Ingredients business, we read and evaluated management's documentation, including information obtained by management from external tax and valuation specialists that detailed the basis of the income tax positions related to the disposal of the Specialty Ingredients business. In addition to our tax specialists, we also involved valuation specialists, who assisted in reperforming certain calculations, developing an independent expectation, and assessing appropriateness of management's conclusions.

We obtained explanations from management regarding the known uncertain tax positions and analyzed correspondence with taxation authorities to identify uncertain tax positions. We assessed the adequacy of management's taxation provisions by considering country specific tax risks, transfer-pricing risks, compliance risks and potential penalties and fines. We critically reviewed and evaluated the judgements made by management in assessing the quantification and probability of significant exposures and the level of provision required for specific matters.

Furthermore, we evaluated whether uncertain income tax items were appropriately disclosed in the Group's consolidated financial statements.

For further information on income taxes refer to the following:

- Note 1 Accounting Principles
- Note 22 Taxes



Other Information in the Annual Report

The Board of Directors is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements of the company, the remuneration report and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibility of the Board of Directors for the Consolidated Financial Statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Swiss law, ISAs and Swiss Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.



- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and the Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

KPMG AG

A handwritten signature in black ink, appearing to read 'F. Krapp'.

Florin Janine Krapp
Licensed Audit Expert
Auditor in Charge

A handwritten signature in black ink, appearing to read 'C. Kaufmann'.

Cyrill Kaufmann
Licensed Audit Expert

Zurich, 15 March 2022



Financial Statements of Lonza Group Ltd

Balance Sheet – Lonza Group Ltd

CHF	Notes	2021	2020
Assets¹			
Non-current assets			
Long-term financial assets:			
- from third parties		16,250,000	11,000,000
- from subsidiaries and associates	2.2	2,436,756,431	3,734,534,262
Investments	2.1	4,748,387,303	5,608,484,488
Property, plant and equipment		118,589	161,658
Prepaid expenses and accrued income:			
- from third parties		7,815,592	11,087,617
Total non-current assets		7,209,327,915	9,365,268,025
Current assets			
Cash and cash equivalents	2.3	1,367,756,334	193,619,331
Short term financial assets:			
- from third parties	2.3	1,642,553,775	0
- from subsidiaries and associates		1,102,429,597	861,749,761
Other short-term receivables:			
- from third parties		8,487,430	67
- from subsidiaries and associates		31,371,423	112,235,477
Prepaid expenses and accrued income:			
- from third parties		1,205,775	37,485,416
- from subsidiaries and associates		7,367,824	8,804,506
Total current assets		4,161,172,158	1,213,894,558
Total assets		11,370,500,073	10,579,162,583
¹ At 31 December			

Liabilities and Shareholders' Equity¹

CHF	Notes	2021	2020
Shareholders' equity			
Share capital	2.6	74,468,752	74,468,752
Legal capital reserves:			
– Reserves from capital contributions	2.7	2,463,921,215	2,575,394,015
Legal retained earnings reserves:			
– General legal retained earnings		37,234,376	37,234,376
Voluntary retained earnings:			
– Available earnings:			
– Profit brought forward		3,389,663,927	2,667,715,331
– Profit for the year		2,345,334,132	833,421,396
Treasury shares	2.8	(176,650,172)	(99,996,374)
Total shareholders' equity		8,133,972,230	6,088,237,496
Non-current liabilities			
Long-term interest-bearing liabilities:			
– to third parties	2.5	878,478,750	1,287,345,000
– to subsidiaries and associates		1,113,200,700	1,855,330,816
Long-term provisions:			
– to third parties		17,081,550	3,195,979
Derivatives financial liabilities:			
– to third parties		12,678,257	24,568,775
– to subsidiaries and associates		6,294	0
Total non-current liabilities		2,021,445,551	3,170,440,570
Current liabilities			
Trade accounts payables:			
– to third parties	2.4	2,339,486	4,508,600
– to subsidiaries and associates		3,180,845	19,819,363
Short-term interest-bearing liabilities:			
– to third parties	2.5	0	351,949,000
– to subsidiaries and associates		957,232,417	759,488,357
Short-term provisions:			
– to third parties		42,807,634	51,833,865
Accrued expenses and deferred income:			
– to third parties		164,436,591	111,628,207
– to subsidiaries and associates		45,085,319	21,257,125
Total current liabilities		1,215,082,292	1,320,484,517
Total liabilities		3,236,527,843	4,490,925,087
Total liabilities and shareholders' equity		11,370,500,073	10,579,162,583

¹ At 31 December

Income Statement – Lonza Group Ltd

CHF	Notes	2021	2020
Income			
Dividend income	2.9	646,555,159	863,803,307
Royalties income		193,830,763	177,653,255
Other financial income	2.10	101,401,570	125,315,967
Other operating income		4,468,219	7,086,711
Other income from sale of business	2.13	1,631,750,010	0
Total income		2,578,005,721	1,173,859,240
Expenses			
Other financial expenses	2.11	66,270,712	128,253,579
Personnel expenses		63,699,681	33,414,606
Other operating expenses	2.12	88,903,112	60,322,058
Impairment losses on investments	2.9	0	115,312,706
Depreciation on equipment		78,370	111,015
Direct taxes		13,719,714	3,023,880
Total expenses		232,671,589	340,437,844
Profit for the year		2,345,334,132	833,421,396

Notes to the Financial Statements – Lonza Group Ltd

Note 1
Principles

1.1
General Aspects

These financial statements were prepared according to the provisions of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations). Where not prescribed by law, the significant accounting and valuation principles applied are described below.

1.2
Financial Assets

Financial assets include short- and long-term loans to subsidiaries and associates, along with third party financial investments. Loans granted in foreign currencies are translated at the rate at the balance sheet date.

1.3
Treasury Shares

Treasury shares are recognized at acquisition cost and deducted from shareholders' equity at the time of acquisition. In case of a resale, the gain or loss is recognized through the shareholders' equity as increase or decrease of available earnings brought forward.

1.4
Share-Based Payments

When treasury shares are used for share-based payment programs, the difference between the acquisition costs and any consideration paid by the employees at grant date is recognized as other financial expenses or income.

1.5
Short-/Long-Term Interest-Bearing Liabilities

Interest-bearing liabilities are recognized in the balance sheet at nominal value. Discounts and issue costs for bonds or syndicate loans are recognized as prepaid expenses and amortized on a straight-line basis over the principal's maturity period. Premiums are recognized as accrued expenses and amortized on a straight-line basis over the principal's maturity period.

1.6
Currency- and Interest-Related Instruments

Currency- and interest-related instruments with a short-term holding period are valued at their fair value as at the balance sheet date. A valuation adjustment reserve has not been accounted for.

1.7
Presentation of a Cash Flow Statement and Additional Disclosures in the Notes

As Lonza Group Ltd has prepared its consolidated financial statements in accordance with a recognized accounting standard (International Financial Reporting Standards IFRS), it has decided to forgo presentation of a cash flow statement, information on interest-bearing liabilities and audit fees in the note disclosures as would be required by Swiss law.

Note 2

Information on Balance Sheet and Income Statement Items

2.1 Investments

Lonza Group Ltd holds the following direct subsidiaries as of 31 December 2021. For indirect principal subsidiaries, please see the list in [note 33](#) to the Group's consolidated financial statements.

		Share Capital in '000 ¹		Direct Holding in % ¹	
		31.12.2021	31.12.2020	31.12.2021	31.12.2020
Capsugel Belgium NV	Bornem, BE	EUR 236,922	EUR 236,922	99.9%	99.9%
Capsugel Middle East Sàrl	Beirut, LB	LPB 5,000	LPB 5,000	1.0%	1.0%
International School of Basel AG	Reinach, CH	CHF 20,900	CHF 20,900	2.4%	2.4%
Lonza AG	Visp, CH	CHF 60,000	CHF 60,000	100.0%	100.0%
Lonza Bioproducts AG	Basel, CH	CHF 0 ²	CHF 100	0.0%	100.0%
Lonza do Brasil Especialidades Quimicas Ltda.	Sao Paulo, BR	BRL 0 ³	BRL 119,648	0.0%	15.4%
Lonza Finance International NV	Bornem, BE	EUR 43,062	EUR 43,062	100.0%	100.0%
Lonza Group GmbH	Waldshut-Tiengen, DE	EUR 25	EUR 25	0.4%	0.4%
Lonza Holdings NA Inc.	Wilmington, US	USD 0 ³	USD 0 ⁶	0.0%	100.0%
Lonza Holding Singapore Pte Ltd	Singapore, SG	USD 100,000	USD 100,000	100.0%	100.0%
Lonza (China) Investments Co. Ltd	Guangzhou, CN	USD 84,000	USD 84,000	100.0%	100.0%
Lonza Japan Ltd	Tokyo, JP	JPY 0 ³	JPY 100,000	0.0%	100.0%
Lonza KK	Tokyo, JP	JPY 0 ⁴	JPY 50,000	0.0%	100.0%
Lonza Licences AG	Basel, CH	CHF 100	CHF 100	100.0%	100.0%
Lonza Sales AG	Basel, CH	CHF 2,000	CHF 2,000	100.0%	100.0%
Lonza Services AG	Basel, CH	CHF 0 ³	CHF 101	0.0%	100.0%
Lonza Solutions AG	Visp, CH	CHF 0 ³	CHF 101	0.0%	100.0%
Lonza Swiss Finanz AG	Basel, CH	CHF 100	CHF 100	100.0%	100.0%
Lonza Swiss Licences AG	Basel, CH	CHF 100	CHF 100	100.0%	100.0%
Lonza USA Inc.	Wilmington, US	USD 0 ^{5,6}	n/a	100.0%	0.0%
Seed Fund Cycle-C3E (A), L.P.	Montreal, CA	CAD 1,000	CAD 1,000	100.0%	100.0%

¹ Rounded amounts

² Entity was merged into Lonza AG in 2021

³ Entity was divested in 2021

⁴ Entity was merged in 2021

⁵ Entity was incorporated in 2021

⁶ Share capital USD 5.00

In 2021, Lonza Group Ltd established Lonza USA Inc. in the United States of America through a carve-out from Lonza Holdings NA Inc. in preparation of the Lonza Specialty Ingredients business transaction. Lonza USA Inc. is a 100% subsidiary of Lonza Group Ltd with a share capital of USD 5.00.

Lonza KK merged into Capsugel Japan Ltd. In 2021 (Capsugel Japan Ltd. was then renamed to Lonza K.K.).

The divestiture of the Lonza Specialty Ingredients business in 2021 resulted in the transfer of all shares of following entities to the buyer:

Lonza do Brasil Especialidades Quimicas Ltda., Lonza Holdings NA Inc., Lonza Japan Ltd., Lonza Services AG, and Lonza Solutions AG.

2.2 Long-Term Financial Assets

Lonza Group Ltd issued subordination agreements of CHF 374 million (2020: CHF 95 million) on loans to subsidiaries and associates.

2.3 Cash, Cash Equivalents and Short-Term Financial Assets

Following the sale of the Lonza Specialty Ingredients business Lonza parked the excess cash into short-term plain vanilla instruments, such as overnight deposits, bank term deposits, notice deposits and short-term money market funds in line with the Group's investment policy. At year-end 2021, Lonza Group Ltd maintained a total balance of CHF 3.0 billion, thereof CHF 1.4 billion was classified as cash & cash equivalents (cash at banks and bank deposits with maturities less than 3 months), and 1.6 billion was classified as short-term investments (maturing between three to six months).

2.4 Trade Accounts Payables

Trade accounts payables include liabilities to personnel welfare institutions of CHF 277,914 at 31 December 2021 (2020: CHF 236,267).

2.5 Short-Term and Long-Term Interest-Bearing Liabilities

CHF	2021	2020
German Private Placement	0	351,949,000
Total short-term interest-bearing liabilities	0	351,949,000

CHF	2021	2020
German Private Placement	239,518,750	670,470,000
Term loan Facility B1 / B2 USD 700 Mio	638,960,000	616,875,000
Total long-term interest-bearing liabilities	878,478,750	1,287,345,000

Credit Rating

In January 2019, Lonza announced that Standard & Poor's (S&P) rated the company with an investment grade rating of BBB+ and stable outlook. The rating has been confirmed by S&P since then and Lonza is committed to maintaining a strong investment-grade rating going forward.

Debt Repayments

Following the successful closing of the transaction to sell the Lonza Specialty Ingredients business and the receipt of the disposal net proceeds in July 2021, Lonza did not issue any new debt securities in 2021. Furthermore Lonza repaid in 2021 its scheduled debt maturities related to the Schuldschein notes (EUR 325 million in August 2021, equaling to CHF 352 million) and also decided to early repay the floating rate Schuldschein notes (USD 250 million and EUR 187.5 million in August and September 2021, totaling CHF 432 million equivalent).

German Private Placement (Schuldschein)

Following the repayments above, Lonza maintains two fixed rate notes of the dual-currency Schuldschein issued in August 2017. Remaining notes are repayable in 2023 (EUR 187.5 million) and 2024 (USD 50 million).

Syndicated Loan Facilities

In 2019, Lonza signed a Syndicated Loan Facility with a consortium of banks, which provides Lonza additional financial headroom of CHF 1 billion, initially due 2024, at floating interest rates. The facility was not used as of 31 December 2021 (in 2020, the facility was not used either). Lonza successfully draw its extension option in 2020 and 2021, therefore the facility was extended by 2 years in total with a final maturity date in 2026.

2.6 Share Capital and Authorized Capital

The share capital on 31 December 2021 comprised 74,468,752 registered shares (2020: 74,468,752) with a par value of CHF 1 each, amounting to CHF 74,468,752 (2020: CHF 74,468,752).

Contingent Capital

The share capital of Lonza Group Ltd may be increased through the issuance of a maximum of 7,500,000 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 7,500,000.

Authorized Capital

The Board of Directors shall be authorized to increase, at any time until 6 May 2023, the share capital of the Company through the issuance of a maximum of 7,500,000 fully paid-in registered

shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 7,500,000. The capital increases in the form of contingent capital and authorized capital may increase the share capital of Lonza Group Ltd by a maximum aggregate amount of CHF 7,500,000. The details and conditions are set out in Articles 4^{bis} to 4^{quater} of the Company's Articles of Association.

At 31 December 2021, Lonza Group Ltd had a fully paid-in registered capital of CHF 74,468,752 and a contingent capital of CHF 7,500,000.

Reserves in the amount of CHF 37,234,376 (2020: CHF 37,234,376) included in the financial statements cannot be distributed.

2.7 Reserves from Capital Contributions

CHF	2021
Reserves from Capital Contributions at 1.1.2020	2,677,762,695
Dividend payout May 2020	(102,368,680)
Reserves from Capital Contributions at 31.12.2020	2,575,394,015
Dividend payout May 2021	(111,472,800)
Reserves from Capital Contributions at 31.12.2021	2,463,921,215

2.8 Treasury Shares

	Total Shares	Average Rate in CHF	Number of Transactions
Treasury shares at 1.1.2020, weighted average price	179,950	284.85	
Acquisitions 2020	287,373	489.58	18
Distribution to board members	(2,888)	447.62	4
Distribution to LTIP share plans	(278,755)	401.80	2
Treasury shares at 31.12.2020, weighted average price	185,680	538.54	
Acquisitions 2021	274,779	633.48	29
Distribution to board members	(1,950)	618.11	4
Distribution to LTIP share plans	(178,886)	570.03	3
Treasury shares at 31.12.2021, weighted average price	279,623	631.74	

2.9 Dividend Income/Impairment Losses on Investments

Dividend income in 2021 includes a dividend distribution from Lonza Sales AG of CHF 248,205,000 (2020: CHF 301,995,608), from Capsugel Belgium NV of EUR 201,000,000 (2020: EUR 110,000,000), and from Lonza Holding Singapore Pte Ltd of USD 117,000,000 (2020: USD 277,500,000).

In 2020, a dividend distribution from Lonza AG of CHF 114,078,774 was received which was contributed as capital increase in kind in Lonza Solutions AG. Furthermore, the dividend received from Lonza AG resulted in an impairment loss of the investment held in Lonza AG in the same amount as the dividend received.

2.10 Other Financial Income

Other financial income in 2021 includes interest income from loans to subsidiaries and associates of CHF 77,556,713 (2020: CHF 117,388,335).

2.11 Other Financial Expenses

CHF	Notes	2021	2020
Interest on deposits subsidiaries		27,106,385	24,727,301
Bank interest and fees		17,525,233	26,999,467
Negative interest rates on investments		8,516,558	0
Loss on treasury shares	1.4	7,878,164	20,034,860
Amortization of discounts and issue costs		3,412,494	4,082,649
Net exchange rate loss		1,750,943	52,409,302
Other		80,935	0
Total financial expenses		66,270,712	128,253,579

2.12 Other Operating Expenses

CHF	2021	2020
Consulting expenses	78,878,986	50,316,896
Administrative expenses	6,922,316	7,793,568
Other operating expenses	3,101,810	2,211,594
Total other operating expenses	88,903,112	60,322,058

2.13 Other Income from Sale of Business

On 23 July 2020, Lonza Group Ltd's Board of Directors decided to divest the Lonza Specialty Ingredients (LSI) business via a sale process, which was initiated in the second half of 2020.

On 8 February 2021, Lonza announced that it entered into a definitive agreement with Bain Capital and Cinven. The divestment of the former Specialty Ingredients business was completed on 1 July 2021 resulting in cash proceeds of CHF 2.5 billion and was finally settled before 31 December 2021.

Note 3 Other Information

3.1 Full-time Equivalentents

At 31 December 2021, Lonza Group Ltd had 78 employees (2020: 67).

3.2 Contingent Liabilities, Guarantees and Pledges

At 31 December 2021, indemnity liabilities, guarantees and pledges in favor of third parties totaled CHF 1,572,533,000 (2020: CHF 1,940,405,315). The company is a member of the Lonza Group value-added-tax group in Switzerland and is thereby jointly and severally liable to the federal tax authorities for value-added-tax debts of the group.

3.3 Major Shareholders

In accordance with Art. 663c of the Swiss Code of Obligations: See [Significant Shareholders](#) section in the Corporate Governance Report.

3.4 Share Ownership of the Members of the Board of Directors and the Executive Committee

In accordance with Art. 663c para. 3 of the Swiss Code of Obligations: See [note 30](#) in the Consolidated Financial Statements and the Remuneration Report.

3.5 Shares for Members of the Board and Granted Equity Awards for Employees

According to the share-based payments (see [note 25](#)), Lonza Group Ltd allocates treasury shares and equity awards as follows:

	2021		2020	
	Number of Shares/Granted Equity Awards	Value in CHF 1	Number of Shares/Granted Equity Awards	Value in CHF 1
Shares allocated to members of the Board of Directors	1,950	1,205,319	2,888	1,292,715
Granted equity awards allocated to members of the Executive Committee	10,717	6,466,718	9,880	4,568,522
Granted equity awards allocated to other employees	2,862	1,631,340	5,083	2,013,885
Total	15,529	9,303,377	17,851	7,875,122

In 2021 Lonza Group Ltd employed 6 members of the Executive Committee (2020: 3).

3.6 Significant Events after the Balance Sheet Date

There are no significant events after the balance sheet date which could impact the book value of the assets or liabilities or which should be disclosed.

Proposal of the Board of Directors

CHF	2021
Available earnings brought forward	3,389,663,927
Profit for the year	2,345,334,132
Available earnings at the disposal of the Annual General Meeting	5,734,998,059
Payment of a dividend (out of available earnings brought forward) in 2021 of CHF 1.50 (2020: CHF 1.50) per share on the share capital eligible for dividend of CHF 74,189,129 (2020: 74,283,072)	(111,283,694)
Available earnings carry-forward	5,623,714,365

CHF	2021
Legal capital reserves qualified as reserves from capital contributions	2,463,921,215
Reserves from capital contributions	2,463,921,215
Payment of a dividend (out of reserves from capital contributions) in 2021 of CHF 1.50 (2020: CHF 1.50) per share on the share capital eligible for dividend of CHF 74,189,129 (2020: 74,283,072)	(111,283,694)
Available reserves from capital contributions carry-forward	2,352,637,521

CHF	2021
Proposed payment of a dividend out of available earnings brought forward	111,283,694
Proposed payment of a dividend out of reserves from capital contributions	111,283,694
Total proposed payment of a dividend	222,567,388

If the General Annual Meeting approves the above proposal for appropriation of available earnings and distribution of reserves from capital contribution, a dividend of total CHF 3.00 per share will be paid. 50% of such dividend will be paid out as repayment from reserves from capital contributions without deduction of Swiss withholding tax in accordance with Art. 5 para. 1^{bis} of the Federal Law on Withholding Tax. The other 50% of such dividend will be paid from available earnings. The last trading day with entitlement to receive the dividend is 6 May 2022. As from 9 May 2022 (ex-date), the shares will be traded ex-dividend. The dividend will be payable from 11 May 2022.



Statutory Auditor's Report

To the General Meeting of Lonza Group Ltd, Basel

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Lonza Group Ltd, which comprise the balance sheet as at 31 December 2021, and the income statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion the financial statements for the year ended 31 December 2021 comply with Swiss law and the company's articles of incorporation.

Basis for Opinion

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Report on Key Audit Matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. We have determined that there are no key audit matters to communicate in our report.

Responsibility of the Board of Directors for the Financial Statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.



As part of an audit in accordance with Swiss law and Swiss Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.



Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and the Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

KPMG AG

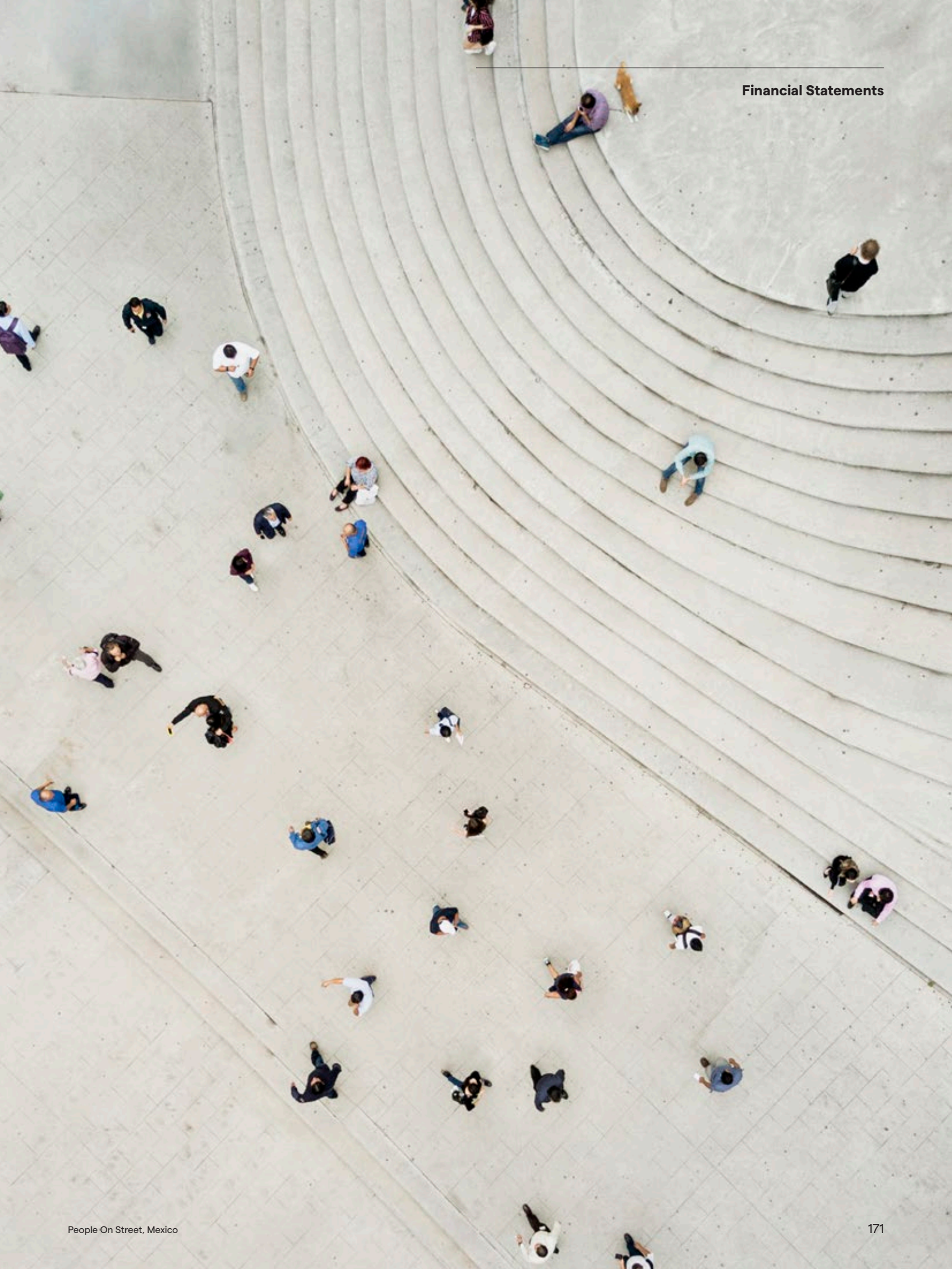
A handwritten signature in black ink, appearing to read 'F. Krapp', written in a cursive style.

Florin Janine Krapp
Licensed Audit Expert
Auditor in Charge

A handwritten signature in black ink, appearing to read 'C. Kaufmann', written in a cursive style.

Cyrill Kaufmann
Licensed Audit Expert

Zurich, 15 March 2022



Alternative Performance Measures

As announced in the investor presentation of 15 October 2020, Lonza has decided to update the external financial reporting to include revised Alternative Performance Measures (APM).

The main objective was to reduce the number of APMs to include only the most critical ones and to increase the threshold of core adjustments to the appropriate materiality level, given Lonza's current size.

This Finance Report and other communications with investors and analysts includes APMs that are not defined by IFRS (non-GAAP-measures) but are used by the management to assess the financial and operational performance at a divisional and group level. These supplementary financial measures should not be viewed in isolation or as alternatives to Lonza's consolidated financial position and financial results, which are reported in accordance with IFRS. Instead, our APMs are intended to provide a complementary perspective on Lonza's performance by isolating distorting effects like exchange rate fluctuations or one-time items. They are also intended to provide additional key performance indicators to complement the performance dashboard. The APMs in use may not correspond to performance measures with similar names in other companies. Every APM shown in the financial report relates to the performance of the current or the previous reporting year.

The APMs are structured in operational Performance Measures as well as Liquidity and Capital Measures. The operational Performance Measures consist of the definition of the CORE concept, the derivation of EBITDA (CORE and non-CORE) and the disclosure of profitability measures at constant exchange rates. The Liquidity and Capital Measures consist of Net Debt and ratios based on Net Debt and Return on Invested Capital, as well as Operational Free Cash Flow.

The following table outlines which APMs are applied on divisional level and respectively on group level:

	Division	Group
Performance Measures		
Sales and sales growth at constant exchange rate	•	•
CORE EBITDA/ CORE EBITDA margin	•	•
EBITDA		•
CORE EPS		•
CAPEX	•	•
Liquidity and Capital Measures		
Net Debt		•
Net Debt/ CORE EBITDA ratio		•
Debt/Equity Ratio		•
Return On Invested Capital (ROIC)		•
Operational Free Cash Flow (before and after acquisitions)		•

CORE Results

As exceptional items can differ significantly from year to year, Lonza excludes these exceptional effects from the reported IFRS results to determine the CORE results. We believe that disclosing CORE results of the Group's performance enhances the financial markets' understanding because the CORE results enable better year-on-year comparisons. Furthermore, the Group uses CORE results in addition to IFRS as important factors when internally assessing the Group's performance.

The following exceptional items are considered as CORE adjustments when they exceed the threshold of CHF 20 million per event¹:

- Restructuring related income and expenses,
- Environmental remediation related income and expenses (related to historical environmental issues only),
- Acquisition and divestiture related income and expenses,
- Impairments and reversal of related impairments,
- Litigations,
- One-time effects arising from changes to pension plans – curtailments and settlements

In accordance with the CORE results, APMs such as CORE Earnings per share (CORE EPS) and CORE EBITDA are directly affected by the exclusion of the adjustments listed above.

¹In the context on the CORE definition, an "event" represents an individual business case that might involve income/expenses across several fiscal years.

The reconciliation of the IFRS result to the CORE result for Full-Year 2021 and 2020 is as follows:

million CHF	2021	2020 ¹
Profit from continuing operations	677	732
Environmental remediation expenses ²	300	8
(Income) / expense resulting from acquisitions and divestitures ³	0	(7)
Tax effect ⁴	(33)	0
CORE Profit from continuing operations	944	733
CORE Profit from continuing operations attributable to equity holders of the parent	941	731
CORE Earnings per share attributable to equity holders of the parent	12.67	9.82

Earnings before interest, tax, depreciation and amortization (EBITDA)

In line with the CORE adjustments, Lonza assesses operational performance based on CORE EBITDA, which can be reconciled in two steps:

million CHF	2021	2020
Result from operating activities (EBIT)	851	901
Depreciation of property, plant and equipment	347	284
Amortization of intangible assets	175	169
Impairment and reversal of impairment on property, plant, equipment and intangibles	(8)	24
Earnings before interest, taxes and depreciation (EBITDA)	1,365	1,378

million CHF	2021	2020 ¹
Earnings before interest, taxes and depreciation (EBITDA)	1,365	1,378
Environmental-related expenses ²	300	8
(Income) / expense resulting from acquisition and divestitures ³	0	(7)
CORE EBITDA	1,665	1,379

¹ CORE results for the Full-Year 2020 were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

² Environmental remediation expenses in 2021 predominantly relate to Gamsenried (CH). Refer to note 14 of the financial report Full-Year 2021

³ Positive impacts related to the acquisition of Capsugel in 2017

⁴ Group tax rate on continuing operations of 10.9% for 2021 and 8.8% for 2020

Growth at constant exchange rates (CER)

Financial results in constant currencies are adjusted to eliminate the impact of changes in exchange rates between the reported and reference period – typically the prior year. This adjustment allows management to focus on operational results, without any distorting effect from changes in foreign currency exchange rates from one period to another.

Constant currency is calculated by converting sales, CORE EBIT and CORE EBITDA of the current year at the exchange rate of the prior year. The resulting margins can therefore be compared with the reported profit margins of the prior year to understand fundamental business trends.

The tables below compare the 2021 financial results based on constant exchange rates (i.e. 2020 exchange rates) with the actual 2020 financial results.

Lonza Group (Continuing Operations)

million CHF	2021	2020	Change in %
Sales	5,409	4,508	20.0
Retranslation at prior year rates	(1)		
Sales in constant currency	5,408		20.0
CORE EBITDA	1,665	1,379¹	20.7
Retranslation at prior year rates	(7)		
CORE EBITDA in constant currency	1,658		20.2
Margin in %	30.7		

¹ CORE results for the Full-Year 2020 were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

Biologics

million CHF	2021	2020	Change in %
Sales	2,699	2,146	25.8
Retranslation at prior year rates	(24)		
Sales in constant currency	2,675		24.7
CORE EBITDA	979	831	17.8
Retranslation at prior year rates	(6)		
CORE EBITDA in constant currency	973		17.1
Margin in %	36.4		

Small Molecules

million CHF	2021	2020	Change in %
Sales	767	692	10.8
Retranslation at prior year rates	5		
Sales in constant currency	772		11.6
CORE EBITDA	215	192	12.0
Retranslation at prior year rates	9		
CORE EBITDA in constant currency	224		16.7
Margin in %	29.0		

Cell & Gene

million CHF	2021	2020	Change in %
Sales	602	481	25.2
Retranslation at prior year rates	7		
Sales in constant currency	609		26.6
CORE EBITDA	106	13	715.4
Retranslation at prior year rates	0		
CORE EBITDA in constant currency	106		715.4
Margin in %	17.4		

Capsules & Health Ingredients

million CHF	2021	2020	Change in %
Sales	1,204	1,153	4.4
Retranslation at prior year rates	13		
Sales in constant currency	1,217		5.6
CORE EBITDA	414	378	9.5
Retranslation at prior year rates	4		
CORE EBITDA in constant currency	418		10.6
Margin in %	34.3		

Corporate

million CHF	2021	2020	Change in %
Sales	137	36	280.6
Retranslation at prior year rates	(2)		
Sales in constant currency	135		275.0
CORE EBITDA	(49)	(35)¹	40.0
Retranslation at prior year rates	(14)		
CORE EBITDA in constant currency	(63)		80.0

¹ CORE results for the Full-Year 2020 were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

Operational Free Cash Flow

Operational Free Cash Flow measures cash generated by the Group's business operations and represents the capability to pay dividends, repay providers of debt, or carry out acquisitions. Moreover, Lonza distinguishes the Operational Free Cash Flow before and after the effect of any acquisitions and disposals.

Lonza's definition of operational free cash flow does not consider adjustments for non-cash items, as these are usually not significant and year-over-year fluctuations are limited. However,

for financial year 2021 Lonza concluded to adjust for the two following non-cash transactions which would have otherwise significantly distorted the current year's operational free cashflow:

- Recognition of the Gamsenried environmental provision,
- Recycling of accumulated exchange rate translation reserve losses related to the Specialty Ingredients business.

In 2021 and 2020, the development of operational free cash flow by component was as follows:

Components of operational free cash flow ¹

million CHF	2021	2020
Earnings before interests, taxes and depreciation (EBITDA)	3,683	1,656
Change of operating net working capital ²	(257)	(246)
Capital expenditures in tangible and intangible assets	(1,341)	(973)
Disposal of tangible and intangible assets	19	14
Change of other assets and liabilities ³	257	262
Gamsenried environmental remediation expenses ⁴	285	0
Specialty Ingredients business - Recycling accumulated exchange rate effects	186	0
Gain from sales of assets held for sale and subsidiaries ⁵	(2,426)	0
Operational free cash flow (before acquisitions / divestitures)	406	713
Acquisitions of subsidiaries	(47)	(15)
Divestitures of subsidiaries	4,092	7
Operational free cash flow	4,451	705

¹ Operational Cash Flow represents Lonza Group incl. Discontinued Operations

² Includes in 2021 non-cash amortization of current deferred income of CHF 97 million (2020: CHF 43 million), recognized in the income statement through EBITDA

³ Includes in 2021 non-cash amortization of non-current deferred income of CHF 7 million (2020: CHF 6 million), recognized in the income statement through EBITDA

⁴ Environmental remediation expenses in 2021 predominantly relate to Gamsenried (CH). See [note 14](#).

⁵ Gain related to both LSI and Softgel Liquid-filled hard-capsule divested businesses

Return on Invested Capital from Continuing Operations

Lonza defines the ROIC as Net Operating Profit After Tax (NOPAT) divided by the average invested capital of the Group. ROIC is an appropriate measure to assess capital efficiency as it tracks profit generation against capital deployment.

In 2021 and 2020, the development of ROIC by component was as follows:

Components of net operating profit after taxes and return on invested capital (ROIC) for the twelve-months period ended 31 December

million CHF	2021	2020 ¹
Result from operating activities (EBIT)	851	901
Share of gain / (loss) of associates / joint ventures	(28)	(4)
CORE adjustments		
Environmental remediation expenses ²	300	8
(Income) / expenses resulting from acquisitions and divestitures ³	0	(7)
Net operating profit before taxes	1,123	898
Taxes ⁴	(122)	(79)
Net operating profit after taxes (NOPAT)	1,001	819
Average invested capital	9,387	9,019
ROIC in %	10.7	9.1

The invested capital represents the average of the monthly balances of the following components:

Components of average invested capital for the twelve-months period ended 31 December

million CHF	2021	2020 ¹
Intangible assets	2,560	2,720
Property, plant & equipment	4,079	3,288
Goodwill	3,079	3,066
Inventories	1,397	1,112
Trade receivables	766	668
Other operating receivables	303	265
Other assets	263	237
Trade payables	(379)	(275)
Other operating liabilities	(2,009)	(1,382)
Net current and deferred tax liabilities	(672)	(680)
Average invested capital	9,387	9,019

¹ Net Operating profit before taxes for the Full-Year 2020 were restated to reflect the changes from the revised Alternative Performance Measures policy that was introduced on 1 January 2021

² Environmental remediation expenses in 2021 predominantly relate to Gamsenried (CH). Refer to note 14 of the financial report Full-Year 2021

³ Positive impacts related to the acquisition of Capsugel in 2017

⁴ Group tax rate on continuing operations of 10.9% for 2021 and 8.8% for 2020

Statement of Value Added

million CHF	Note ¹	2021	%	2020	%		
Origin of value added							
Income from production		5,611		4,653			
Dividend earned		0		0			
Total income		5,611	100.0	4,653	100.0		
Services bought from third parties							
Material costs	18	(1,097)		(938)			
Energy costs	18	(95)		(61)			
Other operating expenses excl. capital taxes		(1,143)		(611)			
Gross value added		3,276		3,043			
Depreciation on property, plant and equipment as well as amortization on intangibles, impairment / reversal of impairment	6, 7	(515)		(475)			
Income from application of the equity method	9	(28)		(4)			
Total net value added		2,733	48.7	2,564	55.1		
Distribution of value added							
To staff:							
- Wages and salaries	19	1,369		1,211			
- Pensions	19	51		36			
- Other social security contributions	19	297		257			
- Other personnel expenses	19	172		139			
Total personnel cost		1,889	69.1	1,643	64.1		
To public authorities							
- Income and capital taxes	22	104	3.8	95	3.7		
To lenders:							
- Financial expenses, net	21.1, 21.2	63	2.3	94	3.7		
To shareholders							
- Dividends paid ²	27	225	8.3	206	8.0		
To the company							
- Profit from continuing operations		674		730			
- Dividends paid	27	(223)	451	16.5	(204)	526	20.5
To non-controlling interests							
- Profit for the period		3		2			
- Dividends paid		(2)	1	0.0	(2)	0	0.0
Total		2,733	100.0	2,564	100.0		
Distribution of value added per employee							
		CHF		CHF			
Wages and salaries		92,325		90,205			
Pensions		3,439		2,682			
Other social security contributions		20,030		19,143			
Other personnel expenses		11,600		10,354			
Total per employee		127,394		122,384			

¹ See the accompanying notes to the consolidated financial statements

² Including dividend paid to non-controlling interest





Remuneration

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190	Compensation of the Executive Committee 2021		

Letter from the Chairman of the Nomination and Compensation Committee



Christoph Mäder
Chairman of the Nomination
and Compensation Committee

Dear Shareholders,

In my role as Chairman of the Nomination and Compensation Committee (NCC) and on behalf of its fellow members, I am pleased to introduce our 2021 Remuneration Report, which adheres to the Swiss Ordinance Against Excessive Compensation for stock exchange listed companies. In this report, we outline the current compensation policies and the decisions made in relation to 2021 compensation for the Executive Committee of Lonza.

We continue to be grateful for the active engagement and time with our shareholders, the investor community and proxy advisors in 2021. It helps to ensure we continue our open and transparent dialogue. Our discussions during 2021 covered matters relating to changes to the Executive Committee, the implementation of environment, social and governance (ESG) compensation measures into executive compensation as well as overall Company developments.

2021 Performance Outcomes

Lonza presents strong 2021 performance outcomes which have benefitted the public, shareholders and our employees. The Committee determined that the 2021 Short-term Incentive Plan (STIP) and 2019 – 2021 Long-term Incentive Plan (LTIP) performance targets, performance outcomes and in turn payout levels, did not need to be adjusted to reflect the impact of the continuing pandemic. As such, performance outcomes were measured against the predetermined and originally set performance targets.

The Full-Year 2021 Group results led to above target 2021 performance outcomes. This reflects strong business performance across our four divisions. The Lonza Group performance outcomes against all three performance targets (sales, CORE EBITDA and operational free cash flow) resulted in a proposed STIP payout at 153% of target for the Executive Committee. See [page 191](#) for more details. The relevant STIP performance targets set at the beginning of 2021 factored in Lonza Specialty Ingredients (LSI) as discontinuing operations and hence the performance targets were not required to be updated following the divestment of LSI during 2021.

Overall Group performance in 2021 also had an impact on the 2019 LTIP, which vested at the beginning of 2022 at 193% of target, as a result of above target CORE EPS and ROIC performance over the 2019–2021 three-year performance period. The 2019 LTIP performance targets were assessed factoring in annualized LSI performance achievement.

2021 Committee Activities and Compensation Changes, Including Introduction of ESG

A review of total reward for our Executive Committee was undertaken during 2021 for implementation in 2022. This included benefits, annual bonus and the long-term incentive. The key principles underpinning the review were a need for simplicity and alignment to the ESG priorities at Lonza.

During this review, it was determined that compensation levels and structure were aligned with the market. In addition, a number of decisions were made by the NCC in relation to Executive Compensation policy for 2022 onward, including the introduction of ESG performance measures into the Short-Term Incentive Plan (STIP) for the 2022 performance year. The ESG performance measures set are both quantitative, and therefore measurable, as well as qualitative with the intent of these supporting the achievement of the quantitative targets. They are set as short-term goals within the STIP in order to enable the setting of robust targets that will support Lonza's long-term ambitions. All measures align to Lonza's priority areas linked to the UN Sustainable Development Goals including good health and well-being, climate action, industry, innovation and infrastructure, responsible consumption and production, gender equality, clean water and sanitation and quality education. The NCC commits to providing additional detail on the 2022 performance measures and the relevant performance targets and outcomes on a retrospective basis in the 2022 Remuneration Report.

In 2022, the transportation and medical benefits provided for the Executive Committee will be simplified. Malus will be introduced alongside our existing Clawback policy to add more robust governance to our short and long-term incentive plans. The NCC commits to providing additional and clarifying detail on these changes in the relevant 2022 Remuneration Report.

Following the divestment of LSI in July 2021, the NCC determined that the Executive Committee compensation benchmarking peer groups be revised to exclude any chemical peer companies. This has resulted in a diminished yet more relevant peer group list. The principle of the primary and secondary peer groups remains. The revised peer groups can be found on [page 187](#).

Finally, the Lonza Board of Directors fees were last reviewed over five years ago. Since then the Company has undergone significant structural changes, which also impact the work of the Board of Directors. In addition, the Board of Directors understands the value of stakeholder engagement as well as ESG oversight and respective time required of its directors. The NCC therefore sought to conduct a review of the Lonza Board of Director fee levels. Details of the review and outcomes can be found in the [2022 Invitation to the Annual General Meeting](#).

Changes to the Executive Committee During 2021

Our Executive Committee went through a number of changes in 2021. Four new members joined the Executive Committee, expanding the Committee to ensure divisional representation. Gordon Bates, President, Small Molecules Division, Claude Dartiguelongue, President, Capsules & Health Ingredients Division, and Jean-Christoph Hyvert, President, Biologics and Cell & Gene Divisions were all appointed to the Executive Committee at the beginning of April 2021. Rodolfo Savitzky stepped down as Chief Financial Officer (CFO) on 30 November 2021. Philippe Deecke followed Rodolfo Savitzky as Chief Financial officer and member of the Executive Committee on 1 December 2021.

All compensation decisions relating to the appointments and departures were made in line with our Executive Compensation Appointment and Termination Policies outlined on [page 188](#).

On behalf of the Nominations and Compensation Committee, I thank our shareholders for the continued dialogue during 2021. We respectfully ask for your endorsement of this 2021 Remuneration Report and approval of Executive Compensation that will be put forward to you at the 2022 Lonza Annual General Meeting.

Yours faithfully,
Christoph Mäder

Chairman of the Nomination and Compensation Committee

At a Glance

Lonza's approach to compensation is designed to attract and retain talent with competitive compensation programs. Our compensation programs are performance-based, linking employee rewards with company and individual performance. Executive compensation is aligned with the short-term and long-term objectives of the wider business. Results are measured based on the achievement of specific short and long-term objectives,

which are defined to achieve a balance between short-term and long-term outcomes. We encourage strategic decisions that drive competitive advantage but discourage executives from taking unnecessary or excessive risks that may threaten the financial health, reputation or sustainability of the Company.

2021 Executive Committee Compensation Policy Table

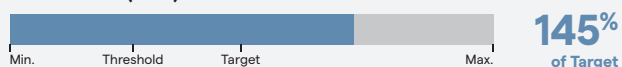
Base Salary	Benefits	Short-term Incentive Plan	Long-term Incentive Plan	Lonza Restricted Share Plan	Shareholding Guidelines
Fixed amount paid in return for the day-to-day duties and responsibilities performed	Post-employment and other benefits to complement Lonza's total compensation offering	Short-term variable compensation component, rewards for annual company and individual performance	Long-term variable compensation component, rewards for long-term company performance. Aligns interests of the Executive with shareholders	Buy-out instrument for Executive Committee members awarded solely in cases where an Executive forgoes certain compensation at their previous employer. Used as a vehicle to support the Executive Committee Appointments Policy and replicates existing vesting schedule at previous employer	Shareholding guidelines to align interests of the Executive with shareholders
Vehicle					
100% cash	Pension and other benefits such as company car / transportation allowance, expense allowances and insurances	100% cash; or 50% cash and 50% equity (until shareholding guidelines are met)	100% vesting subject to a three-year performance period	100% equity subject to a two to five-year time-based vesting period	
Levels					
<ul style="list-style-type: none"> Consideration for experience of individual; direct role responsibilities; and market levels observed at companies in the relevant industry to Lonza 	Aligned with companywide and country specific benefits policies	Target levels: <ul style="list-style-type: none"> CEO – 100% of salary Other EC – 75% of salary Minimum = 0% of target Maximum = 200% of target	Target levels: <ul style="list-style-type: none"> CEO – 150% of salary Other EC – 125% of salary Minimum = 0% of target Maximum = 200% of target	Levels set equivalent or less than forgone awards, considering, but not limited to previous employer variables such as historical company performance, volatility and the equity instrument	CEO – 300% of salary Other EC – 200% of salary To be accumulated over 5 years
Performance Measures					
		May be a mix of financial and individual measures, typically with weighting of 80% and 20% respectively 2021 was based on 100% financial measures 50% CORE EBITDA ¹ 31.25% Sales 18.75% Operating free cash flow	50% CORE EPS ¹ 50% ROIC	Sustained performance in role Continued employment	

¹ CORE results exclude exceptional expenses and income related to e.g. restructuring, environmental-remediation, acquisitions and divestitures, impairments and amortization of acquisition-related intangible assets, which can differ significantly from year to year

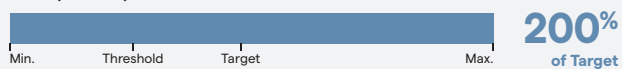
2021 STIP and LTIP Outcomes

2021 Short-term Incentive Plan

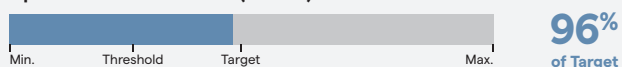
CORE EBITDA (50%¹)



Sales (31.25%¹)

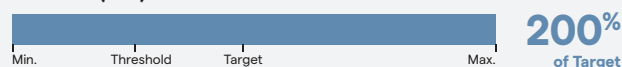


Operational Free Cash Flow (18.75%¹)

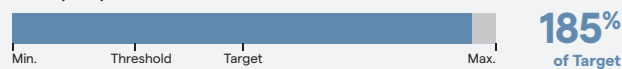


2019 – 2021 Long-term Incentive Plan

CORE EPS (50%)



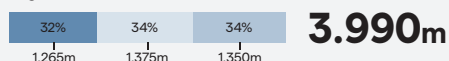
ROIC (50%)



¹ Includes 10% CORE EBITDA, 6.25% Sales and 3.75% operational free cash flow distributed from 20% individual performance element.

2021 Total Remuneration Paymix (CHF)

Highest Paid Member of the Executive Committee



All Executive Committee



■ Total Fixed ■ STIP ■ LTIP ■ LRSP¹ ■ Other Compensation²

¹ Lonza Restricted Share Unit Plan (LRSP) awards are separate from typical total compensation and are awarded only in cases where a new Executive Committee member forgoes cash or equity at their previous employer. See [page 195](#) for details of the LRSP award

² Cash payment (including base salary, other benefits, short-term incentive and social security) and shares (LTIP) received by a departed member of the Executive Committee during 2021 and a cash payment to an Executive Committee member upon their appointment to compensate for forfeited annual bonus at their previous employer

Board of Directors

Compensation Board of Directors Annual General Meeting (AGM) 2021 to 2022 (excluding social security contributions)

In CHF	Base annual fee	Committee membership fee	Committee Chairperson fee
Chairperson of the Board of Directors¹	600,000	–	–
Board of Directors Member²	200,000	40,000	80,000
Form of payout	The additional responsibilities of Vice-Chairperson ³ do not attract any additional fees 50% in Lonza Group shares and 50% in cash. This is paid in quarterly installments during the 2021 financial year		

¹ The compensation of the Chairman of the Board of Directors includes compensation as a member of the Innovation and Technology Committee of the Board of Directors. For details on the compensation received for the role of CEO ad interim during 2020 please see the [2020 Remuneration Report](#)

² The compensation for Committee Chairpersons amounts to CHF 280,000 and includes the committee membership fee. In the case of multiple committee memberships, this attracts one committee membership fee only

³ The roles and responsibilities of such Vice-Chairperson are in line with sect. 19 para. 2 of the Swiss Code of Best Practice for Corporate Governance, requiring adequate control mechanisms, and commensurate to such position

Compensation Governance

Rules in the Articles of Association

[Lonza's Articles of Association](#) contain rules regarding the approval of compensation by the Shareholders' Meeting (Article 22), the supplementary amount in the event of changes in the Executive Committee (Article 23), compensation of the members of the Board of Directors and the Executive Committee, including the principles applicable to performance-related compensation (Article 24), the agreements with members of the Board of Directors and the Executive Committee (Article 25) and loans to members of the Board of Directors and the Executive Committee (Article 27).

Responsibilities of Board of Directors

As outlined in the [Organizational Regulations](#) (Article 2.8), the Board of Directors takes decisions on the following matters:

- 1 The determination of compensation for the members of the Board of Directors in accordance with the Articles of Association
- 2 The proposals to the Shareholders' Meeting regarding approval of the compensation of the Board of Directors and the Executive Committee; and
- 3 The preparation of the Remuneration Report

Responsibilities of the Nominations and Compensation Committee

The Nomination and Compensation Committee (NCC) has the following roles and responsibilities as outlined in the NCC Charter:

- 1 To recommend and review compensation policies and plans for approval by the full Board of Directors
- 2 To review periodically and make recommendations to the Board of Directors regarding any variable incentive and the extent to which the plans meet their objectives
- 3 To advise the Board of Directors on the compensation of its members, to evaluate the performance of the CEO on a regular basis and to determine his/her compensation based on performance and subject to approval of the compensation of the Executive Committee by the Shareholders' Meeting pursuant to the Articles of Association
- 4 To review and approve the compensation proposals for members of the Executive Committee subject to approval by the Shareholders' Meeting pursuant to the Articles of Association
- 5 To recommend to the Board of Directors proposals to be submitted to the Annual Shareholders' Meeting for approval regarding total amounts of compensation of the Board and the Executive Committee pursuant to the Articles of Association
- 6 To support the Board of Directors in preparing the Remuneration Report
- 7 To inform the Board of Directors about compensation policies and programs as well as benchmark compensation of key peer companies; and
- 8 To inform the Board of Directors about the terms of employment for the members of the Executive Committee

The NCC continuously reviews the aspects of executive compensation and compliance with good governance standards and also in light of continuous growth, transformation of the Company and inclusion in the Swiss Market Index (SMI) in 2021.

Shareholders' Meeting

The Shareholders' Meeting approves annually the compensation of the Board of Directors and the Executive Committee in accordance with Article 22 of [Lonza's Articles of Association](#).

External Advisors

Lonza continues to engage with external advisors on an ad hoc basis as required. In 2021, the Committee was provided with external market insight from Agnès Blust Consulting (ABC)¹, Willis Towers Watson (WTW)¹ and Blesi & Papa¹ reflecting a total cost of approximately CHF 120,000. The CHRO and the relevant HR specialists prepare the NCC meeting materials and provide the related materials for such meetings. These individuals have an advisory function without voting rights.

Market Benchmarking

Lonza reviews total compensation for the Executive Committee, wider employees and Board of Directors, through regular benchmarking versus the market, to ensure levels remain competitive to support the retention and attraction of talent. The total compensation (base salary, variable incentives, pension and other benefits) for Executive Committee members in

particular is benchmarked every two to three years against a relevant industry peer group. The Committee revisited the peer groups in 2021 following the divestment of the Specialty Ingredients business and determined that all the chemical companies should be removed. This adjustment resulted in groups of more relevant peers for the purposes of compensation and benefits benchmarking for Lonza going forward. The use of the primary and secondary market benchmarking peer groups remain. The primary peer group now contains European pharmaceutical / CDMO sector businesses of similar size. This peer group continues to serve as the essential reference point. An additional secondary peer group of European pharmaceutical sector businesses of varying size has been added, this allows us to obtain insight on those relevant industry companies which are larger than Lonza, through a secondary reference lens. The Swiss and the US secondary peer groups have been refreshed to include more relevant peers. These secondary peer groups are used as reference points only.

Executive Committee Market Benchmarking Peers

Primary peers	Secondary peers		
European life science businesses of similar size	European life science businesses of varying size	Swiss companies in wider industries	US life science companies
<ul style="list-style-type: none"> • Grifols S.A. • H. Lundbeck A/S • Hikma Pharmaceuticals Plc • Ipsen S.A. • Merck KGaA • Novo Nordisk A/S • QIAGEN NV • Reckitt Benckiser Group Plc • Satorious AG • Siegfried Holding AG • Smith & Nephew Plc • Sonova Holding AG • Teva Pharmaceutical Industries Ltd. • UCB S.A. • Vifor Pharma AG 	<ul style="list-style-type: none"> • Bayer AG • GlaxoSmithKline Plc • Grifols S.A. • H. Lundbeck A/S • Hikma Pharmaceuticals Plc • Ipsen S.A. • Merck KGaA • Novartis AG • Novo Nordisk A/S • QIAGEN NV • Reckitt Benckiser Group Plc • Roche Holding AG • Sanofi S.A. • Satorious AG • Siegfried Holding AG • Smith & Nephew Plc • Sonova Holding AG • Teva Pharmaceutical Industries Ltd. • UCB S.A. • Vifor Pharma AG 	<ul style="list-style-type: none"> • Alcon Inc. • Aryzta AG • Autoneum Holding AG • Barry Callebaut AG • Bucher Industries AG • Dufry AG • Emmi AG • Forbo Holding AG • Geberit AG • Georg Fischer AG • Implen AG • Logitech International S.A. • OC Oerlikon Corp. AG • Pargesa Holding S.A. • SGS S.A. • Siegfried Holding AG • Sika AG • Sonova Holding AG • Sulzer AG 	<ul style="list-style-type: none"> • 3M Company • Agilent Technologies Inc. • Alexion Pharmaceuticals Inc. • Align Technology Inc. • Allergan Plc • Avantor Inc. • Baxter International Inc. • Becton, Dickinson and Company • BioMarin Pharmaceutical Inc. • Bio-Rad Laboratories Inc. • Boston Scientific Corporation • Bristol-Myers Squibb Company • Catalent Inc. • Charles River Laboratories International Inc. • Dentsply Sirona Inc. • Dickinson and Company • Elanco Animal Health Inc. • Eli Lilly and Company • Illumina Inc. • Incyte Corporation • IQVIA Holdings Inc. • Mettler-Toledo International Inc. • Mylan N.V. • PerkinElmer Inc. • Perrigo Company Plc • PRA Health Sciences Inc. • Regeneron Pharmaceuticals Inc. • Stryker Corporation • Syneos Health Inc. • The Cooper Companies Inc. • Thermo Fisher Scientific Inc. • Vertex Pharmaceuticals Incorporated • Waters Corporation • West Pharmaceutical Services Inc. • Zimmer Biomet Holdings Inc. • Zoetis Inc.

¹ WTW have further consulting arrangements with Lonza Human Resources. ABC and Blesi & Papa have no other consulting arrangements

Executive Committee Appointments Policy

In line with mandatory Swiss law, Lonza does not give any “golden handshakes”. Total compensation for an incoming Executive Committee member will be directly aligned with the Executive Committee compensation policy (outlined on [page 184](#)). The Committee will also consider making equity (LRSP or LTIP) or cash awards in lieu of compensation that the individual has forfeited at their previous employer, as a result of accepting the Lonza appointment. The time horizon, vehicle and value of

any award will be directly informed by the details of the awards being forfeited. In such cases, award levels will be less than the level of the awards being forfeited at the previous employer. Details of any such buyout award for Executive Committee members will be disclosed at the time of grant, in the relevant Remuneration Report.

Executive Committee Termination Policy

The below provisions are in line with the employment agreements for all Executive Committee members.

Compensation in Case of Termination

Termination type	Treatment of compensation
Death, disability and retirement	<ul style="list-style-type: none"> • Payment of base salary and benefits over the 12-month notice period, except in the case of retirement. In the case of death, this is paid out to the next of kin
Termination by the Company Without Cause	<ul style="list-style-type: none"> • Pro-rata STIP payment relating to year of termination, measured up to the end of the notice period (payout subject to shareholder vote at the relevant Annual General Meeting) • Unvested LTIP awards will be pro-rated, based on number of months employed (including the notice period) during the 36-month performance period (this applies to all outstanding LTIP awards) • Unvested LRSP awards will be pro-rated, based on number of months employed (including the notice period) during the relevant vesting period
Resignation by the Executive	<ul style="list-style-type: none"> • Payment of base salary and benefits over the 12-month notice period • No entitlement to STIP award with respect to the plan year in which employment is terminated, except if both of the following occur: <ol style="list-style-type: none"> I. Termination is after 31 December of the plan year; and II. Executive was not released from their obligation to work • All unvested LTIP / LRSP awards will lapse
Termination by the Company for Cause	<ul style="list-style-type: none"> • Payment of base salary and benefits over the 12-month notice period • No entitlement to STIP award relating to plan year in which employment is terminated • All unvested LTIP / LRSP awards will lapse
Change of Control ¹	<ul style="list-style-type: none"> • Payment of base salary and benefits up to point of transaction if moving to new entity following transaction or up to the end of the notice period, if terminated by the Company without cause • Within 18 months following a change of control, a STIP payment will be made on a pro-rata basis reflecting the period up to the end of the notice period. The payment will also be based on actual (to the extent that it may be determined) or presumed achievement and, if to the extent that the executive is released from an obligation to work, target achievement (100%) will be assumed • Unvested LTIP / LRSP awards shall vest immediately and the granted price shall be the price at which the shares are sold in the transaction resulting in the Change of Control

¹ If employment is terminated by the Company without cause or an Executive Committee member terminates the employment due to good reason, as outlined in employment contract

Non-Compete Clause

Under the terms of the employment agreement of the Executive Committee, members whose employment is terminated agree that they will not, for a period of six months for EC members and 12 months for the Chief Executive Officer following the end of the notice period, be partially or fully employed by any entity that materially competes with the Company or any of its businesses. In case of a breach of the non-competition clause, the executive shall pay damages to the Company. As compensation for the period of non-competition, the executive will receive a monthly consideration equal to the executive's last monthly base salary minus any new income the executive earns in the relevant month. The Company may elect to fully or partially release the departing Executive Committee member from this non-competition obligation no later than six months prior to the end of the notice period. This non-compete clause is a standard feature aligning with Swiss Employment Laws.

Clawback

The Lonza Clawback Policy applies to Executive Committee members and covers all new and outstanding variable compensation including STIP, LTIP and LRSP awards. It allows Lonza to recover any relevant compensation from Executive Committee members in instances of gross misconduct, material misstatement of performance and error in calculation of performance, for example.

Shareholding Guidelines

The Committee feels strongly that Executive Committee members and other senior managers should have a defined Lonza shareholding to strengthen their alignment with our shareholders' interests. Lonza operates a minimum shareholding guideline for the Executive Committee and other senior managers. The below minimum shareholding levels are to be achieved within the specified five-year period which begins on the date of commencing the relevant role. Progress towards achieving the guideline levels is measured in January of each calendar year.

Shareholding Guidelines

CEO	300% of base salary
Other Executive Committee members	200% of base salary
Other senior managers	Annual LTIP grant value

The NCC periodically reviews the minimum shareholding requirements. No changes were made to these levels during 2021.

Compensation of the Executive Committee 2021

Base Salary

Objective and overview	<ul style="list-style-type: none"> • Paid as a fixed amount in return for the performed day-to-day duties and responsibilities. • Base salary forms the basis of total compensation • Paid out in cash, and reviewed annually, taking into consideration the responsibilities of the position, the personal performance of the Executive Committee member and base salary increases made across the Company
2021 implementation	<ul style="list-style-type: none"> • No changes to base salary were made for existing Executive Committee members during 2021 • Base salary for those appointed to the Executive Committee during 2021 was set taking in consideration the experience of individual, and market levels for the role observed at companies in a relevant industry to Lonza

Benefits

Objective and overview	<ul style="list-style-type: none"> • Complements the total compensation offering on a country or market specific basis • Includes pension and other benefits such as company car allowance, expense allowance and life and health insurance
2021 implementation	<ul style="list-style-type: none"> • Administered in 2021 in line with Companywide pension and benefits policies

Short-term Incentive Plan (STIP)

Objective and overview	<ul style="list-style-type: none"> • A component of variable compensation provides the potential for an annual incentive payment based on performance of the Group and the executive versus annual targets • STIP performance conditions are defined for each financial year ahead of the relevant annual bonus cycle based on the company's short-term objectives, and may be a mix of financial and individual measures, typically with a weighting of 80% and 20% respectively • The NCC can apply judgement to determine the mix of financial and individual measures in any given year
Levels	<ul style="list-style-type: none"> • CEO: 100% of base salary at-target • Other Executive Committee members: 75% of base salary at-target • Minimum payout is 0% of target levels • Maximum payout up to 200% of target levels
Payout method	<ul style="list-style-type: none"> • 100% in cash if shareholder guidelines have been met. See page 189 for details • 50% cash and 50% Lonza Group shares when shareholder guidelines have not been met
2021 performance conditions and achievement levels	<ul style="list-style-type: none"> • The 2021 STIP for Executive Committee members was based on 100% financial performance measures with the financial performance results derived from the audited 2021 financial results:

	2021 Group performance targets and outcomes				2021 Achievement ³ (% of target)
	Weighting	Target	Maximum	Actual ²	
CORE EBITDA ¹	50.00%	1,574	1,683	1,623	145%
Sales ¹	31.25%	4,996	5,239	5,243	200%
Operational free cash flow ¹	18.75%	258	356	251	96%
Total	100.00%	-	-	-	153%

¹ Includes 10% CORE EBITDA, 6.25% Sales and 3.75% operational free cash flow distributed from 20% individual measures

² Adjusted for divestments, acquisitions, and a downward adjustment for extraordinary one-time events

³ 2021 achievement level (153% of target) includes the downwards adjustment for extraordinary one-time events

- The 2021 STIP will be paid to the eligible Executive Committee members in May 2022 subject to shareholder approval at the 2022 Annual General Meeting

Long-term Incentive Plan (LTIP)

Objective and overview	<ul style="list-style-type: none"> Part of the variable compensation component, the LTIP has been designed to align the interests of participants with those of Lonza's shareholders. It also contributes towards the offering of a competitive total reward package Executive Committee members are awarded the conditional right to receive a number of Lonza shares in the future, provided that certain performance conditions are achieved over a three-year performance period The LTIP plan design and performance targets are determined at the beginning of each three-year performance period 																										
Levels	<ul style="list-style-type: none"> CEO: 150% of base salary at target Other Executive Committee members: 125% of base salary at target Minimum payout is 0% of target levels Maximum payout is up to 200% of target levels 																										
Payout ranges	<p>Payout ranges from 0% to 200% of target opportunity levels</p> <table border="1"> <thead> <tr> <th>Performance</th> <th>Payout (% of target)</th> </tr> </thead> <tbody> <tr> <td>Minimum</td> <td>0%</td> </tr> <tr> <td>Threshold</td> <td>50%</td> </tr> <tr> <td>Target</td> <td>100%</td> </tr> <tr> <td>Maximum</td> <td>200%</td> </tr> </tbody> </table>	Performance	Payout (% of target)	Minimum	0%	Threshold	50%	Target	100%	Maximum	200%																
Performance	Payout (% of target)																										
Minimum	0%																										
Threshold	50%																										
Target	100%																										
Maximum	200%																										
2019 LTIP award - performance conditions and payout	<p>The 2019 LTIP award was granted in 2019 and vested in early 2022 following a three year performance period which was based on the below financial performance metrics:</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">Weighting</th> <th rowspan="2">Target</th> <th colspan="2">2019-2021 LTIP performance</th> <th rowspan="2">2021 Achievement (% of target)</th> </tr> <tr> <th>Maximum</th> <th>Actual</th> </tr> </thead> <tbody> <tr> <td>CORE EPS (earnings per share)</td> <td>50%</td> <td>14.4</td> <td>15.8</td> <td>16.5</td> <td>200%</td> </tr> <tr> <td>ROIC (return on invested capital)</td> <td>50%</td> <td>9.6%</td> <td>10.5%</td> <td>10.4%</td> <td>185%</td> </tr> <tr> <td>Total</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>193%</td> </tr> </tbody> </table> <p>This resulted in a payout of 193% of target LTIP levels for Executive Committee members with this award</p>		Weighting	Target	2019-2021 LTIP performance		2021 Achievement (% of target)	Maximum	Actual	CORE EPS (earnings per share)	50%	14.4	15.8	16.5	200%	ROIC (return on invested capital)	50%	9.6%	10.5%	10.4%	185%	Total	-	-	-	-	193%
	Weighting				Target	2019-2021 LTIP performance		2021 Achievement (% of target)																			
		Maximum	Actual																								
CORE EPS (earnings per share)	50%	14.4	15.8	16.5	200%																						
ROIC (return on invested capital)	50%	9.6%	10.5%	10.4%	185%																						
Total	-	-	-	-	193%																						
2021 LTIP award	<p>Overview</p> <p>The 2021 LTIP budget value for the Executive Committee was approved by the Board of Directors and submitted to the 2021 AGM. Following shareholders approval at this meeting, the awards were subsequently administered. Similar to previous years, the 2021 LTIP awards include minimum, threshold, target and stretch goals, as outlined above.</p> <p>Performance measures and target setting</p> <p>The 2021 LTIP awards are subject to CORE EPS and ROIC performance measures, each with an equal weighting. These long-term performance measures remain appropriate to measure the long-term performance of Lonza. They align the interests of the Executive Committee with Lonza's financial performance and in turn the interests of our shareholders. The respective performance targets at the threshold (50%), target (100%) and maximum (200%) payout levels were recommended by the Committee and approved by the Board of Directors in January 2021. These financial performance targets for the 2023 year end are commercially sensitive at this time and will not be disclosed publicly until after the awards have vested.</p> <p>CORE EPS</p> <p>The 2021 LTIP award threshold performance level was determined to be 117% of the CORE EPS threshold performance level for the 2020 LTIP award. The 2021 LTIP maximum performance level was determined to be above the 2023 Guidance and is a double-digit percentage figure above threshold performance levels.</p> <p>ROIC</p> <p>ROIC (return on invested capital) is defined as adjusted net operating profit after tax divided by average invested capital. This measures the return the company generates on its investments for both organic, and inorganic expansion. The measure is a reflection of the effect of decisions taken by Executive Committee members and senior management over the course of the relevant LTIP performance period. The 2021 LTIP award threshold performance level was determined to be 113% of the ROIC threshold performance level set for the 2020 LTIP award. The maximum performance level was determined to be above the 2023 Guidance and is a double-digit percentage figure above threshold performance levels.</p>																										

Lonza Restricted Share Plan (LRSP)

Objective and overview	<ul style="list-style-type: none"> A buy-out instrument for Executive Committee members awarded solely in cases where an Executive forgoes certain compensation at their previous employer. It is used as a vehicle to support the Executive Committee Appointments Policy and replicates existing vesting schedule at previous employer Awards subject to continued employment and sustained performance in role Two to five-year time-based vesting period, depending on the structure of the forgone compensation
Levels	<ul style="list-style-type: none"> Levels set less than forgone awards, considering, but not limited to, previous employer variables such as historical company performance, volatility and the equity instrument
Payout method	<ul style="list-style-type: none"> 100% equity following a two to five-year time-based vesting period

Highest Compensation Paid to a Member of the Executive Committee

The table below shows the breakdown of compensation for Pierre-Alain Ruffieux, the new CEO, as the highest-paid Executive Committee member in 2021. The compensation and variable long-term compensation budgets are based on shareholders' approval during the 2021 Annual General Meeting.

Million CHF	2021	2020
Fixed compensation		
Base salary ¹	0.900	0.150
Post-employment benefits/other benefits ²	0.365	0.209
Variable compensation		
Short-term incentive (cash) ³	0.688	0.000
Short-term incentive (shares) ³	0.687	0.000
LTIP (grant value) ⁴	1.350	0.975
LRSP (grant value) ⁵	0.000	2.288
Total	3.990	3.622

¹ 2021 base salary reflects levels for the CEO, Pierre-Alain Ruffieux, for the full financial year. 2020 reflects levels for Mr. Ruffieux, for the period 1 November to 31 December 2020

² Social security and pension fund as well as company car and health insurance. The social security and pension fund amounts disclosed on this line represent the full costs of the employer contributions for 2021 and 2020. The table shows the fair value of the other benefits

³ Under the STIP Plan Rules, Pierre-Alain Ruffieux was ineligible to receive a STIP 2020 award

⁴ The fair value in 2021 and 2020 was calculated using base salary and market value at grant date (29 January 2021 and 31 January 2020). It is possible that the eventual value at vesting will be higher or lower (or even zero)

⁵ In line with the Executive Committee Appointments Policy (see [page 188](#)), awards were made in 2020 under the Lonza Restricted Share Unit Plan (LRSP), to compensate for time-based equity awards which were forfeited when leaving the previous employer. This award was made in accordance with Article 23 (Supplementary Amount in the Event of Changes in the Executive Committee) of [Lonza's Articles of Association](#). The fair value at grant was calculated using the three trading day average closing share price prior to the grant date. The award will vest after two and three-year periods, subject to continued employment, sustained performance and clawback, under the Clawback Policy

Aggregate Compensation of the Executive Committee

The table below shows the aggregated breakdown of all compensation provided to Executive Committee members¹ in 2021 and 2020.

Million CHF	2021	2020
Fixed compensation		
Base salary ²	3.583	2.264
Post-employment benefits/other benefits ³	1.965	1.069
Variable compensation		
Short-term incentive (cash) ^{4,5}	2.809	1.804
Short-term incentive (shares) ⁶	1.585	0.234
LTIP (grant value) ⁷	4.966	2.931
LRSP (grant value) ⁸	1.700	2.288
Other compensation ⁹	0.856	3.498
Total	17.464	14.088

¹ 6.35 members in 2021 and 5.42 members in 2020. Rodolfo Savitzky stepped down from the Executive Committee on 30 November 2021. Claude Dartiguelongue, Gordon Bates and Jean-Christophe Hyvert became Executive Committee members effective 1 April 2021 and Philippe Deecke became an Executive Committee member effective 1 December 2021

² Base salary levels paid for the periods when individuals sat on the Executive Committee during 2021 and 2020

³ Social security, pension fund and other benefits. The social security and pension fund amounts disclosed on this line represent the full costs of the employer contributions for 2021 and 2020. The table shows the fair value of the other benefits as well as compensation for unused vacation days during past years as a member of the Executive Committee

⁴ The STIP achievement for 2021 was 153% (2020: 167%) and will be paid out in May 2022 subject to shareholders' approval at the 2022 AGM

⁵ All Executive Committee members active prior to 30 April 2020 met the minimum shareholding requirement policy in 2021 (see [page 189](#))

⁶ For those Executive Committee members who are yet to reach the minimum shareholding, the 2021 STIP will be paid out as 50% cash and 50% shares

⁷ The fair value in 2021 and 2020 was calculated using the market value at grant date 29 January 2021 and 31 January 2020 respectively. It is possible that the eventual value at vesting will be higher or lower (or even zero)

⁸ In line with the Executive Committee Appointments Policy (see [page 188](#)), an award has been made in 2021 to an Executive Committee member under the Lonza Restricted Share Unit Plan (LRSP), to compensate for time-based equity awards which were forfeited when leaving the previous employer. These awards were made in accordance with Article 23 (Supplementary Amount in the Event of Changes in the Executive Committee) of [Lonza's Articles of Association](#). The fair value at grant was calculated using the three trading day average closing share price prior to the grant date. The award will vest after a two and three year periods, subject to continued employment, sustained performance and clawback, under the Clawback Policy. See [page 189](#) for full details on the award

⁹ Cash payment (including base salary, other benefits, short-term incentive and social security) and shares (LTIP) received by departed members of the Executive Committee during 2021 and 2020 as well as a cash payment for an Active Executive Committee member in lieu of forfeited annual bonus at their previous employer

There was no change to individual base salary levels for Executive Committee members in 2021, however the aggregated base salary levels increased by 58% in 2021, as a result of the increase in Executive Committee members in 2021. There were 6.26 active Executive Committee members in 2021 compared to 4.21 active Executive Committee members in 2020, reflecting the portion of time held by Executive Committee members during each year. The average base salary looks to have increased in 2021 however, Executive Committee base salary levels have not changed. It is a result of comparing to 2020 which reflects below typical levels for the Executive Committee as it includes only two months of the Chief Executive Officer's base salary and the additional fee for Albert Baehny's additional Executive Chairman duties (CHF 400,000 p.a.).

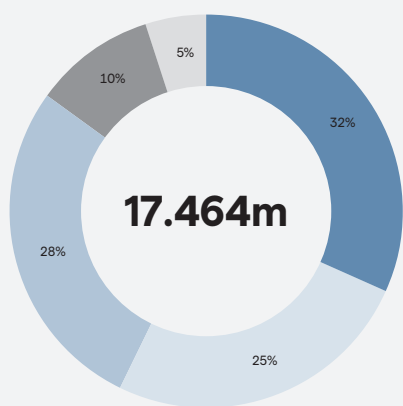
The proposed STIP payments for 2021 are reflective of the 2021 Group financial performance versus the performance targets set, as outlined on [page 191](#) of this report. The performance outcomes result in a proposed payout of 153% of target levels. Despite this lower performance outcome compared to 2020, the 2021 aggregated proposed STIP payout levels reflect a significant increase compared to 2020 (116% increase in 2021 compared to 2020) primarily down to 2021 representing STIP payout for 6.18 members compared to only 2.67 in 2020. The 2021 Executive Committee member representation of 6.18 for the STIP is lower than the Executive Committee member representation for base salary at 6.26 due to the Chief Finance Officer not receiving STIP payout for 2021 as he joined post the STIP eligibility cut off date.

The 2021 LTIP grant value reflects an increase in aggregate levels compared to 2020, albeit there was no change to policy levels during 2021. The difference in value is driven primarily by the increase in the number of Executive Committee members for 2021 compared to 2020 (6.26 members in 2021 compared to 2.83 members in 2020 receiving an award).

No loans or credits were outstanding as of 31 December 2021. During 2021, no payments (or waiver of claims) were made to current or departed Executive Committee members, nor to persons closely linked to them. No member of the Executive Committee benefits materially from any contract between a Lonza company and a third party.

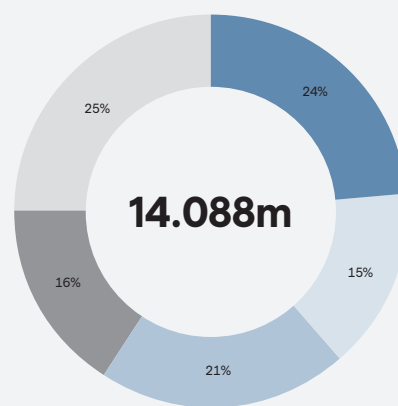
Pay Mix: Fixed versus Variable (CHF)

2021



■ Total Fixed 5.548m
 ■ STIP 4.394m
 ■ LTIP 4.966m
 ■ LRSP 1.700m¹
 ■ Other Compensation 0.856m²

2020



■ Total Fixed (3.333m)
 ■ STIP (2.038m)
 ■ LTIP (2.931m)
 ■ LRSP (2.288m)¹
 ■ Other Compensation (3.498m)²

1 Lonza Restricted Share Unit Plan (LRSP) awards are separate from typical total compensation and are awarded only in cases where a new Executive Committee member forgoes cash or equity at their previous employer. See [page 134](#) for details of the LRSP award made in 2021 and the 2020 Remuneration Report for details of the award made in 2020
 2 Cash payment (including base salary, other benefits, short-term incentive and social security) and shares (LTIP) received by departed members of the Executive Committee during 2021 and 2020. For 2021 it also includes a cash payment to an Executive Committee member made upon their appointment to compensate for forfeited annual bonus at their previous employer

Appointments to the Executive Committee in 2021

Four appointments were made to the Executive Committee during the year, to strengthen and provide representation of our main Lonza divisions. Claude Dartiguelongue - President, Capsules & Health Ingredients Division, Gordon Bates - President, Small Molecules Division and Jean-Christophe Hyvert - President, Biologics and Cell & Gene Divisions were appointed to the Executive Committee on 1 April 2021. In addition, following the departure of Rodolfo Savitzky, Philippe Deecke was appointed as Chief Financial Officer and member of the Executive Committee on 1 December 2021.

Total compensation was set in line with the Executive Committee Compensation Policy. All relevant pro-rated compensation levels for all new Executive Committee members are included in the aggregated compensation table on [page 193](#). One Executive Committee member received a 2021 award under the Lonza Restricted Share Unit Plan (LRSP), to compensate for time based equity awards which were forfeited when leaving the previous employer.

The LRSP award has a grant value less than the value of the awards forfeited. This was made in accordance with Article 23 (Supplementary Amount in the Event of Changes in the Executive Committee) of [Lonza's Articles of Association](#). 71% of the award (CHF 1,200,000) will vest after two years and the remaining 29% (CHF 500,000) will vest after three years to align with the previous vesting schedule of the forfeited time based equity awards. The full award of is subject to continued employment, sustained individual performance and clawback, under the Clawback Policy outlined on [page 189](#).

The LRSP is an instrument used at the Executive Committee member level solely as a vehicle to support Executive Committee Appointments (see [page 192](#) for further details) in cases where compensation is forfeited at a previous employer and a Lonza buyout award is required. This Executive Committee member received a cash payment upon joining Lonza in lieu of forfeited annual bonus at their previous employer. This cash payment is subject to clawback, under the Clawback Policy outlined on [page 189](#). Under the Lonza policy, no Lonza STIP 2021 payout was received by this Executive Committee member.

Payment to Departed Executive Committee Members in 2021

Rodolfo Savitzky stepped down as Chief Financial Officer and Member of the Executive Committee on 30 November 2021 and his departure is treated in accordance with contractual obligations and in line with applicable plan rules.

No other payments (or waiver of claims) were made to former Executive Committee members in 2021.

Compensation Compared to the Lonza Workforce

Existing Executive Committee members did not receive a base salary increase in July 2021. This is in comparison to the wider Lonza workforce who received an average base salary increase of 1.25% as part of the annual salary review process at the beginning of 2021. As the Executive Committee is primarily Swiss based, the Lonza Workforce reflects regular Swiss employees. Any workforce representation wider than this would not enable a fair comparison due to varying inflation and market levels across the world.

Compensation of the Board of Directors 2021

Policy

Objective and Market Benchmarking

In accordance with their respective duties and responsibilities, compensation levels for the Board of Directors are set at the median of the benchmarking peer group. The benchmarking peer group consists of Swiss companies of various sectors that are comparable in type of business, complexity of operations, size (market capitalization) and global presence to Lonza. The peer group comprises ABB, Richemont, Givaudan, Kuhne + Nagel, Sika AG, Alcon Inc, Schindler, LaFargeHolcim, Straumann Holding, Swisscom, Sonova Holding AG, Geberit AG and SGS SA. The Board of Directors regularly reviews the compensation of its members, including the Chairperson, based on a proposal by the Nominations and Compensation Committee, including relevant benchmarking information.

Structure and Level of Compensation

The Chairperson of the Board of Directors and its Members receive their compensation as 50% in Lonza Group shares and 50% in cash. This was paid in quarterly installments during the 2021 financial year. The number of shares granted for Board of Directors' compensation is based on the average closing share price of the last five business days of each quarter. Share restrictions lapse after three years from the grant date. Shares are eligible for a dividend. This structure of Board of Directors' compensation is closely aligned with our shareholders' interests. The members of the Board of Directors do not receive variable compensation. The members of the Board of Directors are reimbursed for travel and other related expenses associated with their responsibilities as members of the Board of Directors of Lonza. The position and associated compensation of the Chairperson of the Board of Directors and its members was approved by shareholders at the 2021 Annual General Meeting (AGM). This reflects compensation levels and structure which are unchanged compared to the previous year.

Compensation Components

For the period from the 2021 AGM to the 2022 AGM, the members of the Board of Directors receive fixed gross compensation for Board of Directors' membership and additional compensation for Committee Chairpersons and committee members as described in the table below. The compensation of the Chairperson of the Board of Directors includes compensation as a member of the Innovation and Technology Committee of the Board of Directors. Further, the compensation of the Committee Chairpersons amounts to CHF 280,000 and includes the committee membership fee. In the case of multiple committee memberships, this attracts one committee membership fee only. The additional responsibilities of Vice-Chairperson do not attract any additional fees.

Board of Directors

Compensation Board of Directors Annual General Meeting (AGM) 2021 to 2022 (excluding social security contributions)

In CHF	Base annual fee	Committee membership fee	Committee Chairman fee
Chairperson of the Board of Directors¹	600,000	–	–
Board of Directors Member²	200,000	40,000	80,000
The additional responsibilities of Vice-Chairperson ³ do not attract any additional fees			
Form of payout	50% in Lonza Group shares and 50% in cash. This is paid in quarterly installments during the 2021 financial year.		

¹ The compensation of the Chairperson of the Board of Directors includes compensation as a member of the Innovation and Technology Committee of the Board of Directors

² The compensation for Committee Chairpersons amounts to CHF 280,000 and includes the committee membership fee. In the case of multiple committee memberships, this attracts one committee membership fee only

³ The roles and responsibilities of such Vice-Chairperson are in line with sect. 19 para. 2 of the Swiss Code of Best Practice for Corporate Governance, requiring adequate control mechanisms, and commensurate to such position

Implementation

The Board of Directors compensation approved by shareholders reflects the July to June period (12 months) following each AGM. As such, any year-on-year change for this period impacts the financial years within which this period falls. No loans or credits were outstanding as of 31 December 2021. During 2021, no payments (or waiver of claims) were made to current or former

Board members nor to persons closely linked to them. No member of the Board of Directors benefits materially from any contract between a Lonza company and a third party. For a full review of the historical development of compensation for the Board of Directors, see note 25 in the Lonza Group consolidated financial statements. (Compensation levels for the 2021 to 2022 AGM period are to be disclosed in the [2022 AGM invitation](#).)

Board of Directors Compensation

In CHF	2021					2020 ⁸				
	Net cash payment	Number of shares	Value of Shares ¹	Social Security and Taxes ²	Total ³	Net cash payment	Number of shares	Value of Shares ¹	Social Security and Taxes ²	Total ³
Albert M. Baehny ⁴	271,629	455	298,901	56,621	627,152	271,882	606	298,921	56,356	627,099
Werner Bauer ⁵	127,297	211	138,736	25,407	291,440	122,827	269	134,073	24,346	281,246
Angelica Kohlmann	106,359	181	118,952	25,295	250,606	106,415	241	118,914	25,182	250,511
Christoph Mäder ⁵	124,234	211	138,736	29,359	292,330	124,279	282	139,147	29,269	292,695
Barbara Richmond	60,231	181	118,952	94,026	273,210	60,239	241	118,914	94,081	273,172
Jürgen Steinemann	65,031	181	118,952	54,969	238,952	65,039	241	118,914	54,961	238,914
Olivier Verscheure	92,630	181	118,952	39,023	250,606	51,454	241	118,914	80,142	250,511
Dorothee Deuring ⁷	124,235	211	138,736	29,359	292,330	93,207	193	104,410	21,956	219,573
Margot Scheltema ⁶	n/a	n/a	n/a	n/a	n/a	18,959	89	34,737	30,041	83,737
Patrick Aebischer ⁶	n/a	n/a	n/a	n/a	n/a	31,837	89	34,737	6,326	72,900
Total	971,646	1,812	1,190,920	354,060	2,516,626	946,078	2,492	1,221,682	422,599	2,590,358

¹ The fair values were calculated using the average closing share price of the last five business days of each quarter, see note 25 in the Financial Report

² The social security amounts disclosed in this column represent the full costs of the employer and employee social security contributions and withholding tax

³ Total compensation amounts refer to gross payments, including social security and withholding tax, except where stated otherwise

⁴ This compensation includes Albert Baehny's committee membership. Albert Baehny is also a member of the Innovation and Technology Committee. He received a total of CHF 978,016 in 2020, comprising CHF 298,921 shares and CHF 679,095 cash, for the role of Chairman of the Board of Directors and CEO ad interim

⁵ Dorothee Deuring, Christoph Mäder and Werner Bauer are Chairpersons of a Board of Directors' Committee

⁶ Margot Scheltema and Patrick Aebischer did not stand for re-election at the 2020 AGM

⁷ Dorothee Deuring was appointed to the Board of Directors at the 2020 AGM

⁸ Moncef Slaoui was appointed to the Board of Directors at the 2020 AGM, however due to further commitments he stepped down from the Board of Directors soon after appointment. Moncef Slaoui received no compensation from Lonza for this period

Share Ownership of the Members of the Board of Directors and the Executive Committee

Board of Directors

Based on information available to Lonza, the members of the Board of Directors and parties closely associated with them held, as of 31 December 2021: 48,159 (2020: 46,209)¹ registered shares of Lonza Group Ltd and controlled 0.06% (2020: 0.06%) of the share capital. None of the members of the Board of Directors or Executive Committee owns shares in the Group's subsidiaries or associates.

Executive Committee

The members of the Executive Committee and parties closely associated with them held, as of 31 December 2021: 4,660 (2020: 14,262) shares and controlled 0.01% (2020: 0.02%) of the share capital. The individual control rights are proportional to the holdings shown below.

Board of Directors¹

	Numbers of shares	
	2021	2020 ²
Albert M. Baehny	4,262	3,773
Werner Bauer	26,712	26,485
Angelica Kohlmann	1,065	870
Christoph Mäder	3,697	3,470
Barbara Richmond	3,657	3,462
Jürgen Steinemann	7,343	7,148
Olivier Verscheure	1,065	870
Dorothee Deuring	358	131
Total	48,159	46,209

¹ Spouse, children below 18, any legal entities that they own or otherwise control, or any legal or natural person who is acting as their fiduciary

² Moncef Slaoui was appointed to the Board of Directors at the 2020 AGM, however due to further commitments he stepped down from the Board of Directors soon after appointment

Executive Committee¹

	Numbers of shares	
	2021	2020
Pierre-Alain Ruffieux ²	0	0
Stefan Stoffel	3,500	3,700
Caroline Barth	445	0
Claude Dartiguelongue ³	0	n/a
Gordon Bates ³	606	n/a
Jean-Christophe Hyvert ³	109	n/a
Philippe Deecker ⁴	0	n/a
Rodolfo Savitzky ⁵	n/a	10,562
Total	4,660	14,262

¹ All Executive Committee members active prior to 30 April 2020 have met or are in line to meet the shareholding guidelines

² Pierre-Alain Ruffieux commenced employment on 1 November 2020

³ Appointed to the Executive Committee on 1 April 2021

⁴ Appointed to the Executive Committee on 1 December 2021

⁵ Rodolfo Savitzky stepped down from the Executive Committee on 30 November 2021



Report of the Statutory Auditor

To the General Meeting of Lonza Group Ltd, Basel

We have audited the accompanying remuneration report of Lonza Group Ltd for the year ended 31 December 2021. The audit was limited to the information according to articles 14 – 16 of the Ordinance against Excessive compensation in Stock Exchange Listed Companies (Ordinance) contained in the sections “Highest Compensation Paid to a Member of the Executive Committee”, “Aggregate Compensation of the Executive Committee”, “Payment to Departed Executive Committee Members in 2021” and “Compensation of the Board of Directors 2021 - Implementation” of the remuneration report.

Responsibility of the Board of Directors

The Board of Directors is responsible for the preparation and overall fair presentation of the remuneration report in accordance with Swiss law and the Ordinance against Excessive compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

Auditor's Responsibility

Our responsibility is to express an opinion on the accompanying remuneration report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report complies with Swiss law and articles 14 – 16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the remuneration report with regard to compensation, loans and credits in accordance with articles 14 – 16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the remuneration report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the remuneration report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

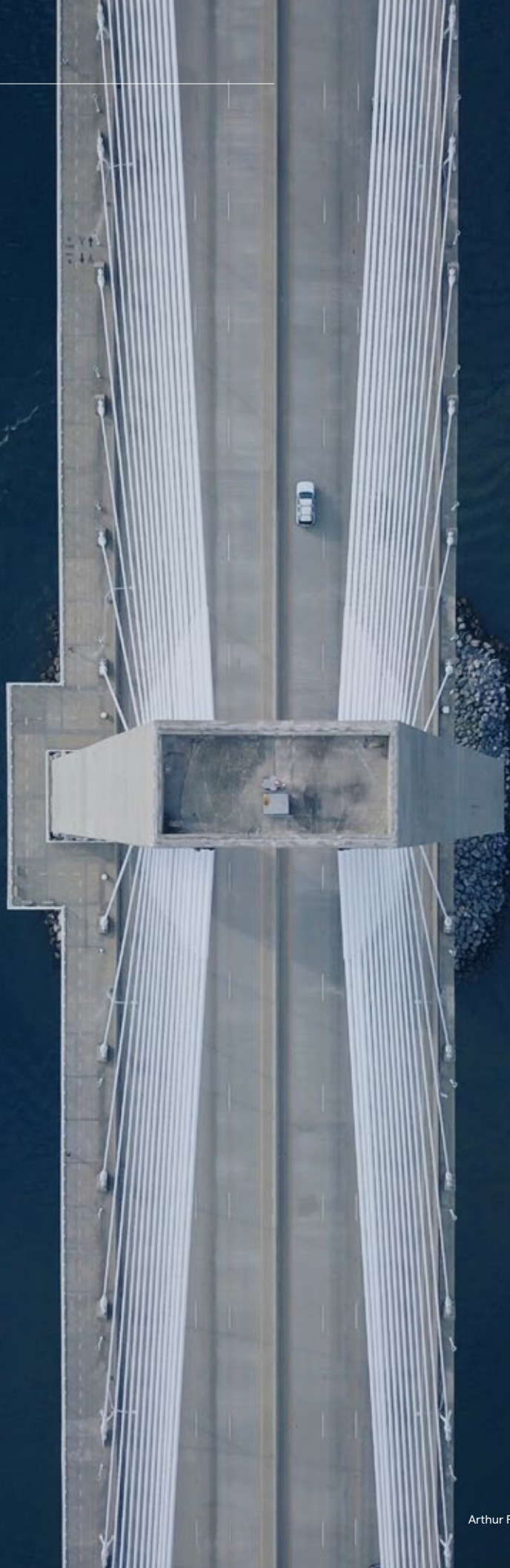
In our opinion, the remuneration report for the year ended 31 December 2021 of Lonza Group Ltd complies with Swiss law and articles 14 – 16 of the Ordinance.

KPMG AG

Florin Janine Krapp
Licensed Audit Expert
Auditor in Charge

Cyrill Kaufmann
Licensed Audit Expert

Zurich, 15 March 2022

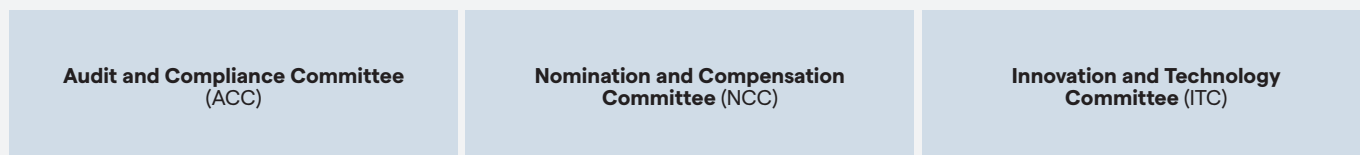


Corporate Governance

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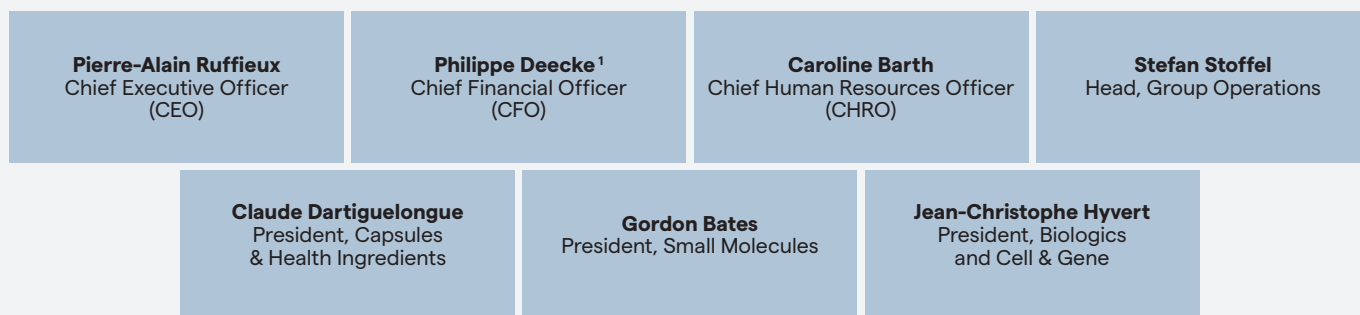
Group Structure and Shareholders

Lonza Board of Directors



The Chairperson of the Board of Directors takes responsibility for all sustainability related issues

Lonza Executive Committee (EC)



Lonza²



¹ Rodolfo J. Savitzky was Chief Financial Officer until November 2021

² The former Specialty Ingredients business was sold effective 1 July 2021

Operational Group Structure

Divisions

In 2021, Lonza's activities were organized in the following four divisions¹:

- Biologics
- Small Molecules
- Cell & Gene
- Capsules & Health Ingredients

Corporate and Business Functions

Corporate and Business Functions include Legal, Communications, Investor Relations, Environment, Health and Safety (EHS), Sustainability, Human Resources, Finance, Commercial and Marketing, Quality, and Operations.

Global Business Services Organization

Our Global Business Services Organization (GBSO) supports our divisions, operational units and corporate functions with transactional services in finance and HR. The GBSO focuses on standardization and automation of processes to drive productivity and higher quality services. Service delivery through the GBSO is centralized in Manchester (UK) to support EMEA markets and in San José (CR) for the Americas.

Holding Company and Listed Companies

Lonza Group Ltd, with our registered office in Basel (CH), is the ultimate parent company of the Lonza Group. With the exception of Lonza Group Ltd, no equity securities of a company controlled by Lonza Group are listed. Please refer to the Shares and Participation Certificates section, [page 205](#), for information on the listed shares, the stock exchanges on which Lonza Group Ltd is listed and the market capitalization.

Principal Subsidiaries and Joint Ventures

The principal subsidiaries and joint ventures of the Lonza Group are shown in note 33, Principal Subsidiaries and Joint Ventures, [page 150](#).

Significant Shareholders

According to disclosure notifications filed with Lonza, the following shareholders held more than 3% of the Lonza share capital as of 31 December 2021:

BlackRock, Inc., New York, NY (USA) 9.00%.

The current significant shareholders as well as further disclosure notifications registered in 2021 can be found at the [SIX Swiss Exchange disclosure platform](#).

Cross-Shareholdings

Lonza Group Ltd has not entered into any cross-shareholdings.

¹ The former Specialty Ingredients business was sold effective 1 July 2021

Capital Structure

Share Capital

As of 31 December 2021, Lonza's share capital amounted to CHF 74,468,752 fully paid-in and divided into 74,468,752 registered shares with a par value of CHF 1 each.

Shareholder Structure

	31.12.2021		31.12.2020	
	Shareholders in %	Shares in %	Shareholders in %	Shares in %
Switzerland	91.08	17.86	90.75	17.88
United Kingdom	0.40	16.99	0.45	20.16
USA	0.98	11.53	1.30	10.81
Others	7.54	6.38	7.50	7.22
Shares in transit		46.86		43.68
Treasury shares without voting rights		0.38		0.25
Total	100	100	100	100
Total number of shares		74,468,752		74,468,752

Share Register

	31.12.2021	31.12.2020
Registered shareholders	32,520	26,510
Registered shares with voting rights	31,175,762	31,542,413
Share distribution:		
1 - 100	23,562	17,825
101 - 1,000	7,758	7,471
1,001 - 10,000	951	971
10,001 - 100,000	202	192
100,001 - 1,000,000	41	46
Over 1,000,000	6	5
Total registered shareholders	32,520	26,510

Authorized and Conditional Capital

The Board of Directors is authorized to increase, at any time until 6 May 2023, the share capital of Lonza through the issuance of a maximum of 7,500,000 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 7,500,000. This authorized capital was created by the Annual General Meeting held on 6 May 2021. The additional terms and conditions of the authorized capital (including the group of beneficiaries who have the right to subscribe for this additional capital) are set out in Article 4^{ter} of the [Lonza Articles of Association](#).

Conditional Capital: Lonza's share capital may be increased through the issuance of a maximum of 7,500,000 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 7,500,000. This conditional capital was created by the Annual General Meeting on 25 April 2017. The additional terms and conditions of the conditional capital (including the group of beneficiaries who have the right to subscribe for this additional capital) are set out in Article 4^{bis} of the [Lonza Articles of Association](#).

According to Article 4^{quater} of the [Lonza Articles of Association](#), the capital increases in the form of conditional capital and authorized capital may increase Lonza's share capital only by a maximum aggregate amount of CHF 7,500,000, which equates to ≈10% of the existing share capital.

Changes in Capital

	2021	2020	2019	2018
Share capital in CHF	74,468,752	74,468,752	74,468,752	74,468,752
Registered shares	74,468,752	74,468,752	74,468,752	74,468,752
Par value in CHF / share	1	1	1	1

Shares and Participation Certificates

Lonza registered shares, with a par value of CHF 1 each, are listed on the SIX Swiss Exchange (SIX), with secondary listing on the SGX Singapore Exchange. In Switzerland, they have been included in the Swiss Market Index (SMI) since 3 May 2017.

Lonza has not issued any participation certificates ("Partizipationscheine", non-voting shares).

Stock Exchange Listing / Trading:

SIX Swiss Exchange
SGX Singapore Exchange

Common Stock Symbols:

Bloomberg LONN SW
Reuters LONN.S
Six Swiss Exchange LONN
SGX Singapore Exchange O6Z

Security Number:

Valor 001384101
ISIN CH0013841017

On 31 December 2021, Lonza had a market capitalization of CHF 56,715 million (2020: CHF 42,357 million).

Profit-Sharing Certificates

Lonza has not issued any non-voting equity security ("Genussscheine", profit-sharing certificates).

Limitations on Transferability and Nominee Registrations

Purchasers of registered shares declaring that they have acquired these shares in their own name and for their own account will be entered without limitation as shareholders with voting rights in the share register. Persons who do not declare to have acquired the respective shares in their own name and for their own account are considered "nominees" and will be entered with voting rights in the share register up to a maximum of 2% of the share capital, unless the actually entitled persons are revealed. The details are set out in Article 6 of the [Lonza Articles of Association](#). This "nominee" exemption allows for non-registration up to 2% of the share capital. It is not meant to serve as takeover defense. This restriction may only be removed by a resolution of the Shareholders' Meeting with a quorum in accordance with Swiss law.

Convertible Bonds

Neither Lonza Group Ltd nor any of its subsidiaries has outstanding convertible bonds.

Options

As of 31 December 2021, no options or warrants to acquire shares issued by or on behalf of Lonza Group Ltd were outstanding.

Board of Directors

The Board of Directors is currently made up of 8 members.

Name	Nationality	Year of birth	Year of initial appointment	Expiration of current term in office	Independence
Albert M. Baehny	Swiss	1952	2017	2022	Independent
Werner Bauer	Swiss	1950	2013	2022	Independent
Dorothee Deuring	Austrian	1968	2020	2022	Independent
Angelica Kohlmann	German-Brazilian	1960	2018	2022	Independent
Christoph Mäder	Swiss	1959	2016	2022	Independent
Barbara Richmond	British	1960	2014	2022	Independent
Jürgen Steinemann	German	1958	2014	2022	Independent
Olivier Verscheure	Belgian	1972	2018	2022	Independent

Limitation of Number of Mandates

According to Article 26 of [Lonza's Articles of Association](#), no member of the Board of Directors may hold more than:

- Eight additional mandates in listed and non-listed companies, out of which not more than four mandates may be in listed companies
- Ten mandates in associations, charitable foundations, trusts and employee welfare foundations.

The Chairperson of the Board of Directors may not hold more than eight additional mandates in listed and non-listed companies, out of which no more than three may be in listed companies.

Mandates are mandates in the supreme governing body of a legal entity that is required to be registered in the commercial register or a comparable foreign register. Mandates in different legal entities that are under joint control or in the same beneficial ownership are deemed to be a single mandate. Mandates in companies that are controlled by Lonza or that control Lonza are not subject to the limitation set forth above. No member of the Board of Directors may hold more than five mandates at the request of Lonza or companies controlled by it.

All Board members comply with the provisions regarding their mandates. This is verified by Lonza on a regular basis.

Elections and Terms of Office

Each member of the Board of Directors is individually elected by the Annual General Meeting for a term of office of one year until the end of the next Annual General Meeting. Board members may not serve more than nine complete terms of office on the Board of Directors. If deemed in the best interest of the Company, the Board of Directors can extend this limit. The Chairperson of the Board of Directors is elected by the Shareholders' Meeting. The Vice-Chairperson is appointed by the Board of Directors. The members of the Nomination and Compensation Committee are elected by the Shareholders' Meeting on an annual basis. The members of the other Board Committees are appointed by the Board of Directors. The Chairpersons of the Board Committees are nominated by the members of the respective Board Committees, except the Chairperson of the Nomination and Compensation Committee that is elected by the Board of Directors in corpore.

Internal Organizational Structure

The Board of Directors consists of the Chairperson, the Vice-Chairperson and the other Board members. In accordance with

[Lonza's Articles of Association](#), the number of members must be at least five. The members of the Board of Directors sat on the following committees in 2021:

Name	Audit and Compliance Committee	Nomination and Compensation Committee	Innovation and Technology Committee
Albert M. Baehny			Member
Werner Bauer			Chairman
Dorothee Deuring	Chairperson		
Angelica Kohlmann		Member	Member
Christoph Mäder	Member	Chairman	
Barbara Richmond	Member		
Jürgen Steinemann		Member	
Olivier Verscheure			Member

The Board of Directors strives to select the committee members based on their professional background and experience.

Audit and Compliance Committee

The Audit and Compliance Committee meets and consults regularly with the Executive Committee, Lonza Audit Services and the independent external auditors to review the scope and results of their work and their performance, according to the Audit and Compliance Committee Charter.

Among other responsibilities, the Audit and Compliance Committee reviews (i) the external auditors' independence, (ii) the systems of internal control and financial reporting, (iii) the risk management system, (iv) compliance with laws, regulations and policies and (v) Lonza's financial statements and results (including releases). The Audit and Compliance Committee is empowered to decide the tasks assigned to it and regularly informs the full Board of Directors on all matters discussed and decided in its meetings. The members of the ACC benefit from their broad professional backgrounds and experience as finance director and member of other audit committees, Chief Financial Officer (CFO) and Group General Counsel for their committee work. Internal and external auditors have full and free access to the Audit and Compliance Committee. The Lonza Audit Services are overseen by the Audit and Compliance Committee and have a direct reporting line to the Chairperson of the Audit and Compliance Committee.

Nomination and Compensation Committee

The Nomination and Compensation Committee is entrusted with responsibilities that include the review and recommendation of compensation policies and plans (e.g. incentive compensation and equity plans) and the compensation of the members of the Executive Committee. This committee also makes an assessment to ensure that the area of nomination and compensation is in compliance with the standards set forth in the associated charter. In addition, the Nomination and Compensation Committee evaluates potential members of the Board of Directors. The Nomination and Compensation Committee is empowered to decide the tasks assigned to it and regularly informs the full Board of Directors on matters discussed in its meetings and submits proposals for Board decision in accordance with the Nomination and Compensation Committee Charter.

Innovation and Technology Committee

The Innovation and Technology Committee monitors potential technology breakthroughs, supports management in driving innovation projects and provides and facilitates contacts, e.g. with academia and research institutions. With regard to the tasks assigned to it, the Innovation and Technology Committee regularly informs the full Board of Directors on all matters discussed and decided in its meetings, in accordance with the Innovation and Technology Committee Charter.

Number of Meetings, Duration and Attendance

Name	Board of Directors	Audit and Compliance Committee	Nomination and Compensation Committee	Innovation and Technology Committee
Number of meetings	9	5	7	5
Average duration	5h	3h	2.5h	2h
Overall attendance	96%	100%	100%	100%

[The Regulations Governing Internal Organization and Board Committees](#) set out in detail the powers and responsibilities of the Board of Directors, its Committees and the Executive Committee. The Board Committees provide support to the Board of Directors in their respective areas of responsibility. The Board of Directors meets with all members of the Executive Committee at each ordinary Board meeting for business updates and decisions to be taken. The Chief Executive Officer (CEO) is a permanent guest of

the Innovation and Technology Committee and is regularly invited to the meetings of the Nomination and Compensation Committee. The Chief Financial Officer (CFO) attends all meetings of the Audit and Compliance Committee. The Chief Human Resources Officer (CHRO) is regularly invited to the meetings of the Nomination and Compensation Committee.

Attendance

Name	Board of Directors	Audit and Compliance Committee	Nomination and Compensation Committee	Innovation and Technology Committee
Meeting Total	9	5	7	5
Albert M. Baehny	9			5
Werner Bauer	8			5
Dorothee Deuring	9	5		
Angelica Kohlmann	9		7	5
Christoph Mäder	8	3 ¹	7	
Barbara Richmond	9	5		
Jürgen Steinemann	8	2 ²	7	
Olivier Verscheure	9			5

¹ Christoph Mäder became member of the ACC after the Annual General Meeting held on 6 May 2021 and attended all ACC meetings after his appointment

² Jürgen Steinemann was member of the ACC until the Annual General Meeting held on 6 May 2021 and attended all ACC meetings during his term of office

Areas of Responsibility

In accordance with the law and the [Lonza Articles of Association](#), the Board of Directors is the supreme governance body of the Group. The Board of Directors is responsible for the tasks assigned to it according to (i) Article 18 of the Lonza Articles of Association and (ii) [the Regulations Governing Internal Organization and Board Committees](#) (Article 2.8). The Board of Directors defines the strategic direction and is responsible for the ultimate management of Lonza as well as the supervision of the persons entrusted with Group management. It is responsible for issuing the necessary instructions especially with regard to compliance with the law, the Articles of Association and the regulations and directives. In compliance with the law and the Articles of Association, the Board of Directors has – with the exception of non-delegable and inalienable duties – delegated the management of the company to the Executive Committee (EC). The Board of Directors commits itself to maintaining the highest standards of integrity and transparency in its governance of Lonza. On an annual basis, the Board undertakes a self-assessment process. The aim is to achieve continuous improvement in the functioning of the Board.

Governance and oversight over Sustainability and environmental, social and governance (ESG) is with the Board of Directors, headed by the Chairperson of the Board, with specific aspects to be covered by the Board's Committees (Nomination and Compensation Committee, Audit and Compliance Committee, and Innovation and Technology Committee). While the Board acts as sponsor and overall owner of the program, the implementation is the responsibility of the EC. The Board and its Committees review and endorse Lonza's sustainability efforts and reporting. Sustainability includes ESG topics of importance relating to Lonza's business and stakeholders. The Sustainability and Risk Committee (SRC), headed by the Lonza Group General Counsel and Company Secretary, manages identified material topics (as shown in the Materiality Matrix in the 2021 [Sustainability Report](#)) and is responsible for sustainability reporting. The Head of Global Sustainability and the Head of Global Environment, Health and

Safety (EHS) and their teams are responsible for proposing the corporate sustainability strategy and for implementation and oversight of the Safety and Sustainability Policy. The Global Sustainability and EHS teams report to Lonza's Group General Counsel.

In 2021, as Lonza started a new chapter as a strategic partner to the healthcare industry, we created a dedicated Sustainability Group to further advance the company's sustainability agenda and its internal and external sustainability profile. The former Sustainability Council was replaced by the Sustainability and Risk Committee (SRC) and the Safety and Sustainability Steering Board (SSSB) which includes operations and supply chain functions.

Information and Control Instruments

The Board of Directors ensures that it receives sufficient information from the Executive Committee to perform its supervisory duty and to make the decisions that are reserved for the Board of Directors through several means discussed below.

Board Information

[The Regulations Governing Internal Organization and Board Committees](#) require the CEO to ensure that the Executive Committee is informed about business activities of the Group and together with the Chairperson – inform the Board of Directors on the business activities of the Group and keep the Board of Directors constantly informed on all important business transactions and issues. In addition, during Board meetings, each member of the Board may request information from the other members of the Board, as well as from the members of the Executive Committee present on all affairs of the Company and the Group. Outside of Board meetings, each member of the Board may request from the members of the Executive Committee information concerning the course of business of the Company and the Group.

Regular Reports to the Board

In addition to the documents required to pass resolutions, the Board of Directors receives the following reports:

- Reports on the sales and earnings performance of the Group structured by divisions
- Reports on the cash flows, debt and debt-equity ratio, plus other relevant key figures for the Group on a quarterly basis
- Qualitative assessments of the divisions on a quarterly basis
- Reports of the external audit for the Full-Year Results and procedures performed on the Half-Year Results (through the Audit and Compliance Committee)
- In cases involving extraordinary events of considerable commercial relevance, the Board of Directors receives direct, immediate information
- Risk assessment reports submitted at least once per year; they are designed to provide the Board with a consistent, Group-wide perspective of key risks.

Internal Audit

The Board of Directors, through the Audit and Compliance Committee, is supported by Lonza Audit Services. The team of nine authorized internal audit positions reviews financial, operational and information technology related activities of the entire Lonza Group with a risk-based audit program. The audit teams continually evaluate the adequacy and effectiveness of the system of internal controls as well as compliance with company policies, procedures, and external regulations, and they recommend appropriate actions to correct deficiencies identified. In 2021, Lonza Audit Services delivered 15 internal audit reports to the Audit and Compliance Committee, and they also informed the Committee about the status of implementation of agreed action plans with seven follow-up audit reports. In the second year of the COVID-19 pandemic and associated travel restrictions performing audits remotely continued to be the norm. With significantly improved remote audit processes and tools, the quality of offsite audits is now similar to onsite reviews.

Internal Control System

Lonza has implemented a financial control framework, in accordance with the requirements of the Swiss law, comprising relevant policies, procedures and controls. It provides the Group's management and Board of Directors a reasonable degree of assurance that business processes are performed efficiently and effectively, in compliance with policies and laws, assets are safeguarded and financial statements are reliable.

Compliance Instruments

In addition to the above-mentioned control instruments, Lonza has implemented various other measures to improve compliance within the Group. The implementation of these measures is supervised by the Audit and Compliance Committee. One of these measures is the issuance of a [Code of Conduct](#) that expresses Lonza's core principles and values in regard to professional business behavior and provides assistance in recognizing, understanding and complying with the laws and ethical standards that govern Lonza's business activities. The Code of Conduct is available to all employees and information about it has been widely circulated within the Group. Lonza employees have to pass iComply tests in online training courses, dealing with topics such as those addressed by the Code of Conduct, in particular antibribery, competition law and conflicts of interest. In addition to these measures, Lonza offers a "whistleblower" hotline (known as "Lonza Ethics Hotline"), which is operated by an external company. Cases disclosed through the "whistleblower" hotline are ultimately reported to the Audit and Compliance Committee. Lonza periodically reviews and updates its policies to address changes in laws and regulations and strengthen compliance.

Risk Assessment

The Board of Directors carries out risk assessments on a minimum of an annual basis. The objective of the risk assessments is to make the principal risks to which Lonza is exposed more transparent and to improve risk mitigation. In its risk assessment for 2021, the Board of Directors identified inter alia commercial, operational and cybersecurity risks for which corresponding risk mitigation measures have been adopted.



CVs Board of Directors

Members of the Board of Directors as of 31 December 2021



Albert M. Baehny

Nationality: Swiss
Year of birth: 1952

Chairman of the Board of Directors of Lonza Group Ltd (since 2018), Independent member of the Board of Directors of Lonza Group Ltd (since April 2017).

Albert M. Baehny holds a degree in biology from the University of Fribourg (CH).

Current Activities and Functions

Public Company Boards

- Member of the Board of Directors of Investis Group Holding SA (since 2016)
- Chairman of the Board of Directors of Geberit AG (since 2011)

Former Activities and Functions

- CEO ad interim of Lonza Group Ltd (2019–2020)
- CEO of Geberit Group (2005–2014)
- Head of Group Division Marketing and Sales Europe for Geberit Group (2003–2004)
- Senior Vice-President at Wacker Chemie AG (2001–2002)
- Various Marketing, Sales, Strategic Planning and Global Management Positions with:
 - Vantico (2000–2001)
 - Ciba-Geigy / Ciba Specialty Chemicals (1994–2000)
 - Dow Chemicals Europe (1981–1993)
 - Serono-Hypolab (1979–1981)



Christoph Mäder

Nationality: Swiss
Year of birth: 1959

Vice-Chairman (since April 2020) and Lead Independent Director (since November 2019) of the Board of Directors of Lonza Group Ltd (since April 2020); Independent member of the Board of Directors of Lonza Group Ltd (since April 2016).

Christoph Mäder holds a Master's degree in law from the University of Basel (CH) and is admitted to the Swiss Bar.

Current Activities and Functions

Public Company Boards

- Member of the Board of Directors EMS Chemie Holding AG (since 2018)
- Member of the Board of Directors Baloise Holding AG (since 2019)

Further Appointments

- President of Economiesuisse (since 2020)
- Member of the Board of Directors Assivalor AG (since 2019)
- Member of the Advisory Board of Accenture Switzerland (since 2019)
- Partner at the law firm Becker-Gurini-Hanhart-Vogt (since 2019)
- Member of the Council of Schweizer Jugend forscht (since 2018)
- Member of the Advisory Board of Vereinigung Schweizerischer Unternehmen in Deutschland (since 2016)
- Member of the Advisory Board of Loeba GmbH (since 2014)

Former Activities and Functions

- Group General Counsel (including oversight of the risk and compliance function) and Member of the Group Executive Committee of Syngenta (2000–2018)
- Member of the Board Committee of economiesuisse (2008–2019)
- Vice-Chairman of economiesuisse (2011–2017)
- Member of the Executive Board of the Business and Industry Advisory Committee (BIAC) for the Organization for Economic Co-operation and Development (OECD) (2012–2016)
- Member of the Board of scienceindustries (2006–2018)
- Member of the Board of the Basel Chamber of Commerce (2002–2018)
- Head of Legal & Public Affairs for Novartis Crop Protection AG (1999–2000)
- Senior Corporate Counsel for Novartis International AG (1992–1998)



Werner Bauer

Nationality: Swiss
Year of birth: 1950

Independent member of the Board of Directors of Lonza Group Ltd (since April 2013).

Werner Bauer holds a diploma and PhD in chemical engineering from the University of Erlangen-Nürnberg (DE). He has received several scientific honors, among others the BioAlps Award 2011 and Honorary Senator from the Technical University of Munich (DE).

Current Activities and Functions

Public Company Boards

- Member of the Board of Directors of SIG Combibloc Group AG (since 2018)
- Vice-Chairman of the Board of Directors of Givaudan SA (since 2014)

Further Appointments

- Member of the Board of Directors of the Urs Bühler Innovation Fund (since 2019)
- Vice-Chairman of the Supervisory Board of Bertelsmann SE & Co. KGaA (since 2012)
- Chairman of the Board of Trustees of the Bertelsmann Foundation (since 2003)

Former Activities and Functions

- Member of the Supervisory Board of GEA Group AG (2011–2018)
- Chairman of the Supervisory Board of Nestlé Deutschland AG (2007–2017)
- Executive Vice-President of Nestlé S.A., Head of Innovation, Technology, Research and Development (2007–2013)
- Executive Vice-President of Nestlé S.A., Head of Technical, Production, Environment, Research & Development (2002–2007)
- Various managerial positions of increasing responsibility at Nestlé (1990–2002)
- Chairman of the Board of Directors of Galderma Pharma S.A. (2011–2014)
- Member of the Board of Directors of L'ORÉAL, France (2005–2012)
- Member of the Board of Directors of Alcon Inc., Switzerland (2002–2010)
- Director of the Fraunhofer Institute for Food Technology & Packaging and Professor in Bioprocess Technology at Technical University Munich (DE) (1985–1990)
- Professor of Chemical Engineering at the Technical University of Hamburg (DE) (1980–1985)



Dorothee Deuring

Nationality: Austrian
Year of birth: 1968

Independent member of the Board of Directors of Lonza Group Ltd (since April 2020).

Non-Executive Director and Corporate Finance Adviser, who brings more than 25 years of experience in the fields of manufacturing, biotech, pharmaceuticals and banking. Ms Deuring currently serves on the board of several companies including Axpo, Bilfinger and Elementis. Her Board memberships span the energy, plant engineering, chemical and biopharmaceutical sectors. She received her Master of Science in Chemistry from Université Louis Pasteur, Strasbourg in 1994. In 1996 she received her Master in Business Administration from INSEAD, Fontainebleau (FR).

Current Activities and Functions

Public Company Boards

- Supervisory Board Member, Immofinanz AG (since 2021)
- Member of the Board of Directors, Member of the Audit Committee of Axpo Holding AG (since 2017)
- Member of the Board of Directors, Member of the Audit and Remuneration Committees of Elementis PLC (since 2017)

Activity

- Independent Corporate Finance Adviser (since 2014)

Former Activities and Functions

- Supervisory Board Member, Member of the Audit Committee of Bilfinger SE (2016–2021)
- Member of the Board of Directors of PIQUR Therapeutics AG (2019–2021)
- Member of the Board of Directors of Selecta AG (2020)
- Supervisory Board Member (Beirat) of Röchling Group SE & Co. KG (2016–2019)
- Head of Corporate Advisory Group Europe, Managing Director Wealth Management Division of UBS AG (2011–2014)
- Managing Director Investment Banking, Head Healthcare and Chemicals M&A of Bankhaus Sal. Oppenheim Jr & Cie (2007–2009)
- Vice Director, Corporate Finance, Mergers & Acquisitions; Vice Director, Diagnostics Division, Business Development for F. Hoffman-La Roche AG (2003–2007)
- Founder, Owner Manager and Board Member of CoCap AG (1998–2003)
- Consultant of McKinsey & Company (1997–1998)
- Managing Director of K. Deuring & Co (1993–1997)



Angelica Kohlmann

Nationality: German-Brazilian
Year of birth: 1960

Independent member of the Board of Directors of Lonza Group Ltd (since May 2018).

Angelica Kohlmann holds a MD and doctorate in medicine from Hamburg University (DE).

Current Activities and Functions

- Member International Advisory Board IE University and Business School, Madrid (since 2017)
- Chairperson Board of Directors, Bloom Diagnostics AG (since 2014)
- Chairperson Board of Directors, Kohlmann & Co AG (since 2013)
- International investor in biotech and tech, based in Switzerland (since 2014)
- Board Observer Teralytics AG (since 2017)
- Chairperson of the Advisory Board Peter Drucker Society Europe / Global Peter Drucker Forum, Vienna (since 2009)

Former Activities and Functions

- Member Advisory Board UBS Unique (2017–2018)
- Director Trinnacle Fund Ltd (2016–2017)
- Member Board of Directors Teralytics AG (2013–2016)
- Founder & CEO Ifitech GmbH, Germany (2010–2017)
- International investor in biotech and tech, based in Germany (2000–2013)
- International consultant for strategy, management, investments and restructuring (1992–1999)
- Head global restructuring Behringwerke AG, Germany (1990–1992)
- Member Board Staff Hoechst AG, Germany (1988–1990)
- International Marketing Group Leader at Behringwerke AG (1986–1988)
- MD Anderson Cancer Center, Houston and Memorial Sloan Kettering Cancer Center, New York, USA – various cancer research functions



Barbara Richmond

Nationality: British
Year of birth: 1960

Independent member of the Board of Directors of Lonza Group Ltd (since April 2014).

Barbara Richmond holds a first-class degree in management science from the University of Manchester Institute of Science and Technology in England. Barbara Richmond has substantial knowledge as a financial expert, demonstrated by her roles as Chief Financial Officer for various companies. She is a Fellow of the Institute of Chartered Accountants in England and Wales.

Current Activities and Functions

- Group CFO of Redrow plc (since 2010)

Former Activities and Functions

- Group CFO (including oversight of the accounting function) of Inchcape plc (2006–2009)
- Non-Executive Director and Audit Committee Chair of Scarborough Building Society until its merger with The Skipton Building Society (2005–2009)
- Non-Executive Director, Senior Independent Director and Audit Committee Chair of Carclo Group plc (2000–2006)
- Group CFO of Croda International plc (1997–2006) with dual role as Group CFO and President of Active Ingredients and Industrial Chemicals from 2002 to 2006
- Group CFO of Whessoe plc in 1993 (1993–1997)
- Various financial roles in Alstom Group SA (1987–1992)
- Auditor and management consultant for Arthur Andersen (1981–1984)



Jürgen Steinemann

Nationality: German
Year of birth: 1958

Independent member of the Board of Directors of Lonza Group Ltd (since April 2014). Jürgen Steinemann holds a degree in Economics and Business Management from the European Business School in Wiesbaden (DE), London (UK) and Paris (FR).

Current Activities and Functions

Public Company Boards

- Chairman of the Supervisory Board of Metro AG (since 2015)

Further Appointments

- Investor in food and agro businesses
- Managing Director of JBS Holding GmbH (since 2017)
- Chairman of the Supervisory Board of Bankiva B.V. (since 2017)
- Member of the Advisory Board of Tower Brook Capital Partners LP (since 2017)
- Member of the Supervisory Board of Big Dutchman AG (since 2015)

Former Activities and Functions

- Member of the Board of Directors of Barry Callebaut AG (2015–2020)
- Chief Executive Officer of Barry Callebaut Ltd (2009–2015)
- Member of the Board of the Swiss-American Chamber of Commerce (2011–2015)
- Member of the Executive Board and Chief Operating Officer of Nutreco (2001–2009)
- Chief Executive Officer of Lodders Croklaan (1999–2001)
- Various senior positions in business-to-business marketing and sales with the former Eridania Béghin-Say Group, ultimately in the "Corporate Plan et Stratégie" unit at the head office in Paris (1990–1998)



Olivier Verscheure

Nationality: Belgian
Year of birth: 1972

Independent member of the Board of Directors of Lonza Group Ltd (since May 2018).

Olivier Verscheure holds a PhD in computer science from the Swiss Federal Institute of Technology, Lausanne (CH) (EPFL, July 1999).

Current Activities and Functions

- Expert in the Strategy Working Group on Data, Computing and Digital Research Infrastructures in the State Secretariat for Education, Research and Innovation (SERI) (since 2019)
- Member of the Foundation Council of SWITCH (since 2019)
- Founder and Executive Director of the Swiss Data Science Center, a joint venture between EPFL and ETH Zürich (since 2016)
- Member of the Executive Committee of Personalized Health and Related Technologies (PHRT), an ETH Domain Strategic Focus Area (since 2017)
- Co-academic Director, Certificate of Advanced Studies (CAS), Data Science and Management, HEC Lausanne and EPFL (since 2018)

Former Activities and Functions

- Lab Program Director and Senior Research Manager at IBM Research Ireland (2010–2016)
- Research Manager and Senior Member of the Research Staff at the IBM T.J. Watson Research Center (1999–2010)

Executive Committee

The members of the Executive Committee are appointed by the Board of Directors. Lonza's Executive Committee performs the duties assigned to it by the Board of Directors under the terms of the [Regulations Governing Internal Organization and Board Committees](#). It is responsible for managing Lonza worldwide and for implementing policies and strategies as defined by the Board

of Directors. The Executive Committee supports and coordinates the activities of the divisions, the corporate functions and the global business service organization. The Executive Committee is also responsible for leadership development.

Members of the Executive Committee

Name	Nationality	Year of Birth	Function
Pierre-Alain Ruffieux	Swiss	1969	Chief Executive Officer
Rodolfo J. Savitzky	Swiss / Mexican	1962	Chief Financial Officer (until November 2021)
Philippe Deecke	Swiss / German / French	1972	Chief Financial Officer (since December 2021)
Caroline Barth	British	1972	Chief Human Resources Officer
Stefan Stoffel	Swiss	1966	Head, Group Operations
Claude Dartiguelongue	French	1959	President, Capsules & Health Ingredients
Gordon Bates	British	1965	President, Small Molecules
Jean-Christophe Hyvert	Swiss	1972	President, Biologics and Cell & Gene

Limitation of Number of Mandates

According to Article 26 of the [Lonza Articles of Association](#), no member of the Executive Committee may hold more than:

- One additional mandate in a listed company
- Two additional mandates in non-listed companies
- Ten mandates in associations, charitable foundations, trusts and employee welfare foundations.

Mandates are mandates in the supreme governing body of a legal entity that is required to be registered in the commercial register or a comparable foreign register. Mandates in different legal entities that are under joint control or in the same beneficial ownership are deemed to be a single mandate. Mandates in companies that are controlled by Lonza or that control Lonza are not subject to the limitation set forth above; no member of the Executive Committee may hold more than five mandates at the request of Lonza or companies controlled by it.

Management Contracts

Lonza Group Ltd has not entered into management contracts with companies or natural persons not belonging to the Group.

CVs Executive Committee

Members of the Executive Committee as of 31 December 2021



Pierre-Alain Ruffieux, PhD

Nationality: Swiss
Year of birth: 1969

Chief Executive Officer (CEO) and Member of the Executive Committee (since November 2020).

Pierre-Alain Ruffieux holds a doctorate in Biotechnology and a master's degree in Chemical Engineering and Biotechnology from the Swiss Federal Institute of Technology (EPFL), Lausanne (CH).

Former Activities and Functions

- Head of Global Pharma Technical Operations & Member Pharma Executive Team, F. Hoffmann-La Roche (2017–2020)
- Head of Quality and Compliance, Global Pharma Technical Operations, F. Hoffmann-La Roche (2015–2017)
- Head of Quality, Pharmaceutical Division & Member Pharmaceutical Executive Committee, Novartis Pharmaceuticals (2012–2015)
- Head of Global Pharma Technical Operations & Biologics Quality Assurance, Novartis Pharmaceuticals (2010–2012)
- Global Head of Quality for Biopharmaceutical, Novartis Pharmaceuticals (2009–2010)
- Various positions in technical development and manufacturing at Novartis Pharmaceuticals & Sandoz, Novartis Group (2003–2009)
- Various positions in technical development and manufacturing at Serono (now Merck Serono) (1998–2003)



Philippe Deecke

Nationality: Swiss / German / French
Year of birth: 1972

Chief Financial Officer (CFO) and Member of the Executive Committee (since December 2021).

Philippe Deecke holds a Master's Degree in Industrial Management and Manufacturing from ETH Zurich (CH) and an MBA from Cornell University Johnson School (US).

Former Activities and Functions

- Chief Financial Officer, Novartis Oncology (2021)
- Chief Financial Officer, Sandoz, division of Novartis (2017–2021)
- Chief Financial Officer, Alcon EMEA, division of Novartis (2015–2021)
- Head Group Business Planning and Analysis, Novartis International AG (2012–2015)
- Chief Financial and Administration Officer, Novartis Schweiz AG (2010–2012)
- Project Director, Novartis International AG (2008–2010)
- Head Finance, Novartis Pharmaceutical Inc. (US) (2006–2008)
- Assistant to CEO, Novartis International AG (2005–2006)
- Associate Principal, McKinsey & Company (1998–2005)



Caroline Barth

Nationality: British
Year of birth: 1972

Chief Human Resources Officer (CHRO) and Member of the Executive Committee (since April 2020).

Caroline Barth holds a degree in European Business Studies from the University of Sunderland (UK) and an MBA from The Open University (BE).

Former Activities and Functions

- Global Head of Human Resources, Pharma, Novartis Pharma AG (2016–2020)
- Global Head Pharma Strategy, Novartis Pharma AG (2019)
- Global Head of Human Resources, Pharma Manufacturing and Quality, Novartis Pharma AG (2014–2016)
- Global Head of Human Resources, Central & Eastern Europe, Novartis Pharma AG (2013–2014)
- VP, Human Resources Canada Pharma & Corporate HR Leader, Novartis Pharma AG (2010–2013)
- Head of Talent Management, Organizational Development & Staffing, Europe, Novartis Pharma AG (2008–2010)
- Head of Human Resources Global IT, Novartis Pharma AG (2006–2008)
- Human Resources Integration Leader, Novartis Pharma AG (2004–2006)
- HR Communications Leader, EMEA & APAC, Cisco Systems (2001–2003)
- HR Generalist, Emerging Markets, Cisco Systems (1997–2001)



Stefan Stoffel

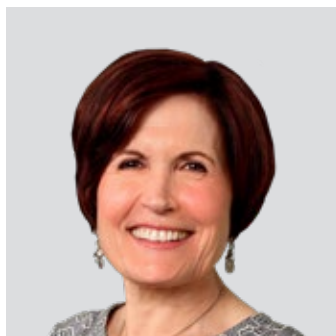
Nationality: Swiss
Year of birth: 1966

Head, Group Operations and Member of the Executive Committee (since March 2019).

Stefan Stoffel holds a Bachelor's degree in engineering from Lucerne University of Applied Sciences and Arts (CH).

Former Activities and Functions

- Head of Lonza Pharma & Biotech Strategic Growth Investments and Ibex® Solutions (2016–2019)
- Head of Lonza Pharma & Biotech Operations (2013–2016)
- General Manager of Lonza Chemical Operations Business Unit (2010–2013)
- Head of Lonza's Small Molecules Exclusive Synthesis Business Unit (2009–2010)
- Head of Operations for Lonza's Small Molecules Exclusive Synthesis Business Unit (2007–2009)
- Various positions at Lonza in Engineering & Maintenance, Technical Management, Production and Operations Management for Lonza AG and Lonza Inc. (1991–2007)



Claude Dartiguelongue

Nationality: French
Year of birth: 1959

President, Capsules & Health Ingredients Division (since January 2020) and Member of the Executive Committee (since April 2021).

Claude Dartiguelongue holds a master's degree in Medical Management from the École Supérieure de Commerce de Paris, ESCP (FR), as well as in Biotechnology from the University of Grenoble (FR).

Former Activities and Functions

- President, Microbiology, Thermo Fisher Scientific (2016 – 2019)
- President, BioSciences, Becton, Dickinson and Company (BD) (2013 – 2016)
- President, Pharmaceutical Systems, BD (2009 – 2012)
- Regional and global leadership positions (primarily in Sales and Marketing), BD (2002 – 2009)



Gordon Bates

Nationality: British
Year of birth: 1965

President, Small Molecules Division (since January 2021) and Member of the Executive Committee (since April 2021)

Gordon Bates holds a master's degree in Engineering Business Management from the University of Warwick (UK).

Former Activities and Functions

- President, Lonza Chemical Division (2018 – 2020)
- Senior Vice President, Business Unit Head, Lonza Chemical and Microbial Manufacturing (2015 – 2017)
- Global Head of Sales, Lonza Pharma Custom Manufacturing (2013 – 2015)
- Head of Operations and Site Manager, Lonza Slough (UK) (2007 – 2013)
- Global Head of Lonza Operational Excellence (2003 – 2007)

Former Members of the Executive Committee in 2021¹



Jean-Christophe Hyvert

Nationality: Swiss
Year of birth: 1972

President, Biologics and Cell & Gene Divisions (since January 2021) and Member of the Executive Committee (since April 2021)

Jean-Christophe Hyvert holds a master's degree in Physics from INSA, Rennes (FR) and an MBA from the Northwestern University (USA).

Former Activities and Functions

- Chief Commercial Officer, Lonza Pharma Biotech & Nutrition Segment (2019–2020)
- Vice President, Finance, Lonza Pharma & Biotech Segment (2017–2019)
- Finance Director ECEMEA, Baxter International (2016–2017)
- Senior Director EMEA Business Development, Baxter International (2015–2016)
- Finance Director, Baxter International (2013–2014)
- Various leadership positions in Finance and Operations at Newell Rubbermaid, Lehman Brothers and Legris (covering Corporate Development, M&A and Supply Chain) (1995–2013)



Rodolfo J. Savitzky

Nationality: Swiss / Mexican
Year of birth: 1962

Chief Financial Officer (CFO) and Member of the Executive Committee (October 2016 until 30 November 2021).

Rodolfo J. Savitzky holds a degree in Industrial and Systems Engineering from the Tecnológico de Monterrey (MX) and an MBA in Finance and Economics from the University of Chicago (USA).

Former Activities and Functions

- Vice-President Controller, Lonza Pharma & Biotech Segment (2015–2016)
- Division CFO, Novartis Animal Health (2011–2015)
- Business Unit Head of Finance, Novartis Animal Health (2006–2011)
- Head of Strategic Planning and Analysis, Novartis Pharmaceuticals (2004–2005)
- Head of Business Planning and Analysis, Novartis Pharmaceuticals (2003–2004)
- Head of Finance Ophthalmics, Novartis Pharmaceuticals (2002–2003)
- Various positions at Procter & Gamble (1990–2001)

¹ Information tracked until the end of the term of employment with Lonza



Compensation, Shareholdings and Loans

Details of Board and Executive Committee compensation are contained in the Remuneration Report, respectively on [page 196](#) and [191](#).

Shareholders' Participation Rights

Voting-Rights Restrictions and Representation

Only persons with valid entries in the share register are recognized as shareholders or usufructuaries. A shareholder may only be represented at the Annual General Meeting by a legal representative, another shareholder entitled to vote or the independent proxy. Persons who do not declare to have acquired their shares in their own name and for their own account are considered "nominees" and will only be entered with voting rights in the share register up to a maximum of 2% of the share capital, unless the entitled persons are revealed. The details are set out in Article 6 of the [Lonza Articles of Association](#). This requirement ensures compliance with applicable anti-money laundering laws, but is not meant to serve as takeover defense. This restriction may only be removed by a resolution of a Shareholders' Meeting with a quorum in accordance with Swiss law. Each share has the right to one vote and is entitled to dividend. The shares held by Lonza are not entitled to vote at the Annual General Meeting and bear no dividend. Lonza may use an electronic voting system for all the resolutions to be taken at its Annual General Meeting. The [Lonza Articles of Association](#) do not contain any other rules on electronic participation in the Shareholders' Meeting, nor specific rules on the issue of instructions to the independent proxy.

Statutory Quora

Except as otherwise stipulated by law, an absolute majority of the votes represented at the Annual General Meeting is required for resolutions and elections. For certain important matters such as a change of the company purpose and domicile, the dissolution of the company without liquidation, and certain matters relating to capital changes, Article 704 of the Swiss Code of Obligations requires at least two-thirds of the voting rights represented and an absolute majority of the nominal value of shares represented.

Convocation of Shareholders' Meetings

Ordinary Shareholders' Meetings are called in accordance with the law and the [Lonza Articles of Association](#). Extraordinary Shareholders' Meetings must be called upon resolution of a Shareholders' Meeting or if demanded by one or more shareholders representing at least 5% of the share capital. Lonza posts the invitation to shareholders at least 20 days before the Annual General Meeting and publishes it on its website, as well as in the Swiss Official Gazette of Commerce.

Agenda

One or more shareholders representing together shares with a par value of CHF 100,000 may request an item to be included in the agenda of a Shareholders' Meeting. The request to include an item must be submitted in writing at least 40 days before the meeting, stating the item to be included and the motions.

Entry in the Share Register

Purchasers of Lonza shares may submit a request to be entered, without limitation, as shareholders with voting rights in the share register, provided they expressly declare that they have acquired these shares in their own name and on their own account. Special rules exist for persons who do not expressly declare in the entry application that they hold the shares on their own account (nominees) – see Limitations on Transferability and Nominee Registrations, [page 205](#). There are no special rules in the [Lonza Articles of Association](#) concerning a deadline for entry in the share register. The share register will be closed this year on 21 April 2022 at 5:00 pm CEST.

Changes of Control and Defense Measures

Duty to Make an Offer

According to the Swiss Federal Act on Financial Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA), an investor who acquires more than 33⅓% of all voting rights (directly, indirectly or in concert with third parties) whether they are exercisable or not, is required to submit a takeover offer for all shares outstanding. No special opting-out or opting-up dispositions are contained in the [Lonza Articles of Association](#).

Clauses on Change of Control

The employment agreements of the Executive Committee members contain certain clauses on change of control, which are outlined in the Compensation of the Executive Committee section of the Remuneration Report. In addition, Lonza's Long-Term Incentive Plan (LTIP) provides that unvested awards or blocked shares unconditionally vest upon change of control (see Compensation of the Executive Committee section of the Remuneration Report, [page 191](#)).

Auditors

Duration of the Mandate and Term of Office of the Auditor in Charge

The independent auditor, KPMG AG, Raffelstrasse 28, 8045 Zurich, Switzerland, has held the mandate as the external statutory auditor of Lonza Group Ltd and the Group since 1999. The external statutory auditor is elected at the Annual General Meeting for a term of one year. The criteria for selection of external auditors include independence, quality, reputation and cost of services.

Florin Krapp from KPMG AG has been nominated as new lead auditor in charge for the financial year 2021. Lonza's Audit and Compliance Committee, together with KPMG AG ensure that the auditor in charge is rotated at least every seven years.

The Board of Directors proposes that KPMG AG be re-elected as auditor for the 2022 business year.

Auditing Fees and Additional Fees

The fees for professional services paid to KPMG AG for the years under audit ended 31 December 2021 and 2020 are as follows:

Million CHF	2021	2020
Audit services	4.179	4.833
Audit-related services		
- Assurance – transaction related	0.865	3.401
- Assurance – other	0.000	1.027
Tax services	0.008	0.133
Other services	1.483	3.873
Total	6.635	13.266

Audit services are provided as required by law and include the audit of the consolidated financial statement of Lonza Group Ltd as well as the required statutory audits of Lonza Group entities.

Audit-related services include other assurance and accounting services provided by the independent auditors but which may not exclusively be provided by the statutory auditor. These services go beyond the legal requirements and may include, inter alia, other attestation services, comfort letters, audits in connection with non-recurring transactions, consents and consultations, as well as

audit services related to the performance of historical carve-out audits of the Specialty Ingredients business. Tax services represent tax compliance, assistance with historical tax matters, and other related services. Other services in 2021 and 2020 primarily related to vendor due diligence procedures and reporting for which an independent report was to be issued related to the divestment of the Specialty Ingredients business and further provision of accounting and reporting guidance, as well as, training in finance and relevant regulations.

Supervisory and Control Instruments vis-à-vis the Auditors

The Audit and Compliance Committee is responsible for evaluating the performance and independence of the external auditors on behalf of the Board of Directors. This evaluation occurs at least once a year. The criteria applied for the assessment include professional competence, sufficiency of resources, the ability to provide effective and practical recommendations and coordination of the external auditors with the Audit and Compliance Committee and senior management. In the reporting year, KPMG AG attended five Audit and Compliance Committee

meetings. In those meetings, the external auditors presented the 2021 audit strategy and their 2021 results.

The Comprehensive Auditor's Report to the Board of Directors prepared by KPMG AG summarizes the reports presented to the Audit and Compliance Committee throughout the year. Within the annual approved budget, there is an amount permissible for non-audit services that the external auditors may perform. Within the scope of the approved and budgeted amount, the Chief Financial Officer can delegate non-audit-related mandates to the external auditors, subject to all applicable auditor independence regulations.

The Board of Directors has determined the rotation interval for the auditor in charge to be at least every seven years, as defined by the Swiss Code of Obligations.

The Audit and Compliance Committee reviews Lonza's financial reporting process on behalf of the Board of Directors. Lonza's management is responsible for preparing the financial statements and the reporting process, including the system of internal controls. The Audit and Compliance Committee is also responsible for overseeing the conduct of the activities by Lonza management and the external auditors.

The external auditor, KPMG AG, is responsible for expressing an opinion on the accounting records and the financial statements prepared in accordance with Swiss law and the [Lonza Articles of Association](#). KPMG AG is also responsible for expressing an opinion on the consolidated financial statements (balance sheet, income statement, statement of comprehensive income, cash flow statement, statement of changes in equity and notes) prepared in accordance with the International Financial Reporting Standards (IFRS), which is issued by the International Accounting Standards Board (IASB), and with Swiss law. KPMG AG also audited the Lonza Remuneration Report 2021 with respect to the information required by Articles 14 to 16 of the Swiss Ordinance Against Excessive Compensation in Stock-Exchange-Listed Companies.

Information Policy and Key Reporting Dates

Lonza pursues a proactive and professional communication policy. Lonza publishes price-sensitive information in accordance with the obligation to disclose price-sensitive facts as required by the SIX Swiss Exchange. Ad hoc notices are made available on Lonza's [news site](#). Additionally, Lonza's website provides a [news and subscription service](#) that allows interested parties to receive, via e-mail distribution, free and timely notification of price-sensitive facts.

Corporate Communications and Investor Relations report directly to the Chief Executive Officer. On basic matters of general corporate policy, Corporate Communications and Investor Relations receive their directives from the Executive Committee. Lonza makes the Annual Report, the Half-Year Results and Full-Year Results available to all interested parties as a [PDF download](#).

The invitation to the Annual General Meeting is published on our [website](#) and in the Swiss Official Gazette of Commerce. It is also sent by mail to the shareholders entered in the share register. Our website is regularly updated and provides relevant information such as share-price development, news releases and presentations. Financial results conference calls were held and a Capital Markets Day (CMD) meeting in 2021 took place in Zurich and by conference call. Lonza manages an annual program of investor meetings. To the extent possible under COVID regulations, shareholders, potential investors and financial analysts are also welcomed at our headquarters in Basel, Switzerland.

Anticipated Key Reporting Dates

The list of all corporate events of special interest is subject to change during the year as dates are adjusted and added. Updated information is found on the [Investor Relations page](#) of our website or on [page 21](#) of the Annual Report.

Black-out Periods and Trading Bans

Lonza has two regular black-out periods which start on (i) June 9 and (iv) December 10 every year and end on the day after the public announcement of the company's Half-Year and Full-Year Results, respectively. During these black-out periods, members of the Board of Directors and Executive Committee as well as several employees (which are deemed to potentially have access to sensitive information during these periods) are not allowed to trade Lonza securities.

In addition, Lonza may issue a special trading ban outside of the black-out periods for persons which potentially have access to sensitive information (in case of specific events or projects, ad-hoc announcements, profit warnings, etc.). Such special trading ban is upheld as long as the potentially sensitive information has not been made public. The persons in scope are informed of the start and the end of such special trading ban and are not allowed to trade Lonza securities during such period.

Legal Disclaimer

Forward-Looking Statements

Forward-looking statements contained herein are qualified in their entirety as there are certain factors that could cause results to differ materially from those anticipated. Any statements contained herein that are not statements of historical fact (including statements containing the words “outlook,” “guidance,” “believes,” “plans,” “anticipates,” “expects,” “estimates” and similar expressions) should be considered to be forward-looking statements. Investors are cautioned that all forward-looking statements involve risks and uncertainty.

There are a number of important factors that could cause actual results or events to differ materially from those indicated by such forward-looking statements, including the timing and strength of new product offerings; pricing strategies of competitors; the company’s ability to continue to receive adequate products from its vendors on acceptable terms, or at all, and to continue to obtain sufficient financing to meet its liquidity needs; difficulty to maintain relationships with employees, customers and other business partners; and changes in the political, social and regulatory framework in which the company operates, or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional or national basis.

In particular, the assumptions underlying the Outlook 2022 and Mid-Term Guidance 2024 herein may not prove to be correct. The statements in the section on Outlook 2022 and Mid-Term Guidance 2024 constitute forward-looking statements and are not guarantees of future financial performance.

Lonza’s actual results of operations could deviate materially from those set forth in the section on Outlook 2022 and Mid-Term Guidance 2024 as a result of the factors described above or other factors. Investors should not place undue reliance on the statements in the section on Outlook 2022 and Mid-Term Guidance 2024. Except as otherwise required by law, Lonza disclaims any intention or obligation to update any forward looking statements as a result of developments occurring after this presentation was published.

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Disclaimer

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