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with thanks to the Natural History Museum Basel

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Letter to Shareholders



Dear Fellow Shareholders,

Last year's record performance was not just a "one-off" result as it represented the fifth year in a row that we delivered improvements on all major financial performance indicators. Since we started our transformational journey in late 2012, we have shown steady and continued improvement in all our key performance indicators, which in turn has been reflected in significant improvements in our share price.

We are grateful to you, our shareholders, for the faith you have demonstrated in Lonza with your ownership. Your investment – but above all the hard work of our 10,000 employees to deliver on our strategies – has helped drive strong shareholder, customer and stakeholder value.

You can be assured that this performance only whetted our appetite to launch and pursue further strategic growth initiatives that are aimed at making Lonza the leading integrated solutions provider for the global pharmaceutical and consumer healthcare and nutrition markets.

Subject to the approval at the Annual General Meeting, our Board of Directors has suggested a dividend of CHF 2.75 per share for 2016, another vital way to reward your investment in us. With a solid balance sheet and strong cash flow, our dividend is secure; and we are able to invest in both organic growth and complementary acquisitions.

Our outstanding financial results were driven by particularly strong results from our Pharma&Biotech segment and by another solid performance in our Specialty Ingredients segment. Overall, sales grew by nearly 9% to CHF 4.13 billion, led by remarkable Pharma&Biotech sales growth of nearly 16% year-over-year. We also posted our highest-ever CORE EBIT (Earnings Before Interest and Taxes) of CHF 651 million, up by 24.2%. Another important measure of our financial health – our CORE RONO (Return on Net Operating Assets) – substantially improved to 21.5%, compared with 16.4% last year. We can rightfully be proud of these achievements – the best in Lonza's 120-year history.

It's not a given that every year will be a record year. We have to make it happen by excelling at profitably serving our customers and by otherwise executing on all of our strategic growth plans. The 2016 results confirmed the value of our overall strategy, which is to excel at serving the entire healthcare continuum, spanning all of Pharma&Biotech and many of our Specialty Ingredients businesses.

Breakout Year for Pharma&Biotech

Our Pharma&Biotech segment delivered an outstanding performance, driven by commercial excellence, strong operational execution and continued cost discipline. The strong momentum in Mammalian Manufacturing was complemented by a significant upward trend in all other technologies and modalities. Our Mammalian business was able to further broaden its customer base with new contracts of significant length being signed. In addition, better-than-anticipated market uptake of our clients' therapeutics resulted in extended contract volumes. Subsequently, the order-book visibility improved once more. Also our Chemical and Microbial Manufacturing business made considerable progress in 2016, further developing new business models and securing long-term commitments.

The main 2016 highlight for our Emerging Technologies business included the start of the construction of a new viral therapy facility near Houston, TX (USA). This new facility, which is planned to come online towards the end of 2017, will be able to develop and manufacture both viral gene therapies and virally modified cell therapies.

In 2016 we acquired Triangle Research Labs, an industry leader in human and animal hepatocytes and robust, multifunctional cell lines. Its offerings have further strengthened Bioscience Solutions.

Specialty Ingredients Posts Another Solid Year

The Specialty Ingredients segment posted sustained strong performance again last year. This good progress was driven by the positive results in the Wood Protection, Consumer Care and Water Treatment businesses, as well as by an improved product mix and portfolio optimization. The expected slowdown in Agro Ingredients caused by the lower agro market dynamics had some impact on the overall growth for Specialty Ingredients. Lonza will continue to conduct operational and value-chain improvements to further enhance profitability.

Last year's acquisition of InterHealth Nutraceuticals also strengthened our offerings in the nutritional and consumer healthcare ingredients market, where we are now strongly positioned to capitalize on leading consumer and health trends.

Why We Invest in the Healthcare Continuum ...

In 2016 Lonza refined our overall strategy to accelerate growth and deliver value along the healthcare continuum by complementing our existing offerings and by opening up new market opportunities in the pharma and consumer healthcare and nutrition industries. Our technologies and manufacturing expertise make Lonza well positioned to be a leading supplier to these markets where medication, healthy food, hygiene, personal care and clean water are necessary to meet the needs of the world's population.

All products and services across both the Pharma&Biotech and Specialty Ingredients segments have in common that the highest regulatory standards have to be observed and that quality, consistency and reputation play a major role. Recent moves – such as the investment in Drug Product Services (DPS), the acquisition of InterHealth Nutraceuticals and the proposed acquisition of Capsugel – make Lonza the partner of choice for our pharma and consumer healthcare and nutrition customers along the entire healthcare continuum.

Why Capsugel Is a Perfect Fit ...

In late 2016 we reported that we intend to acquire Capsugel, a leading global provider of oral, nasal and other drug-delivery products and systems. This acquisition, which we expect to close during the second quarter of 2017, is fully in line with Lonza's stated strategy to accelerate growth and deliver value along the healthcare continuum. Lonza's existing offerings, combined with Capsugel's complementary portfolio, will open up new market opportunities in the pharma and consumer healthcare and nutrition industries. With the acquisition of Capsugel, Lonza will add a trusted brand with a large breadth of technologies and will expand the market reach of our contract development and manufacturing organization and products businesses. It will also support Lonza's strategic ambition of getting closer to the patient and end consumer.

This value-creating acquisition will transform our company. It will establish us as one of the world's leading and most-trusted suppliers to the pharmaceutical, biotech and specialty ingredients markets. The acquisition is expected to be value accretive to our CORE earnings per share in the first full year after closing of the transaction. It is also important to point out that Capsugel's strong cash flow is expected to help us in reducing debt in a timely manner.

Outlook 2017

Based on the sound foundation for the future that we laid in 2016, Lonza is announcing the following outlook for 2017, on a Lonza standalone basis:

- Sales growth of mid-single digit
- CORE EBITDA of CHF 1 billion
- Double-digit CORE EBIT growth
- CORE RONOA above the 21.5% achieved in 2016

This outlook is based on the present macroeconomic environment, current visibility and constant exchange rates for the most important currencies in which Lonza is trading. The mid-term guidance will be reviewed in the course of 2017. Depending on the timing of the potential Capsugel acquisition closing, Lonza intends to provide an update as part of the half-year results report on 26 July 2017 or latest by the third-quarter business update on 26 October 2017.

Changes to the Board of Directors

The Board of Directors is proposing to Lonza's Annual General Meeting (AGM), to be held on 25 April 2017, the election of Albert M. Baehny (64) as a new member of the Board. Subject to his election, the Board will appoint Mr. Baehny as Vice Chairman of the Board, with the intention to propose him as the new Chairman at the AGM 2018. The Board is proposing the re-election of Rolf Soiron as the Chairman for one more year until the AGM 2018 in order to ensure continuity in the supervision of the Capsugel transaction and its successful integration. Thomas Ebeling has decided not to stand for re-election at the AGM this year. On behalf of the Board, we would like to thank him for his contributions during his three years of service on the Board and on the Nomination and Compensation Committee. The Board is further proposing to the AGM the re-election of all other Board members.

Why We Are Thankful ...

Obviously, the Board of Directors and the Executive Committee did not achieve last year's record results by ourselves. We want to thank you, Lonza's shareholders, for your support and investment, which we take as a token of confidence in our ability to deliver. Also we would like to thank our customers, suppliers and other business partners for their trust in our products and services. And above all, our gratitude goes to our employees around the world. Their professionalism, productivity and commitment have made our progress possible and have helped to make Lonza "The Place to Go, Stay and Grow." We have proven that we are capable of achieving remarkable results, and now we are focused on the day-to-day work that will make 2017 another year to celebrate and savor.

With our best regards,

Rolf Soiron

Chairman of the Board of Directors

Richard Ridinger

Chief Executive Officer

Lonza at a Glance

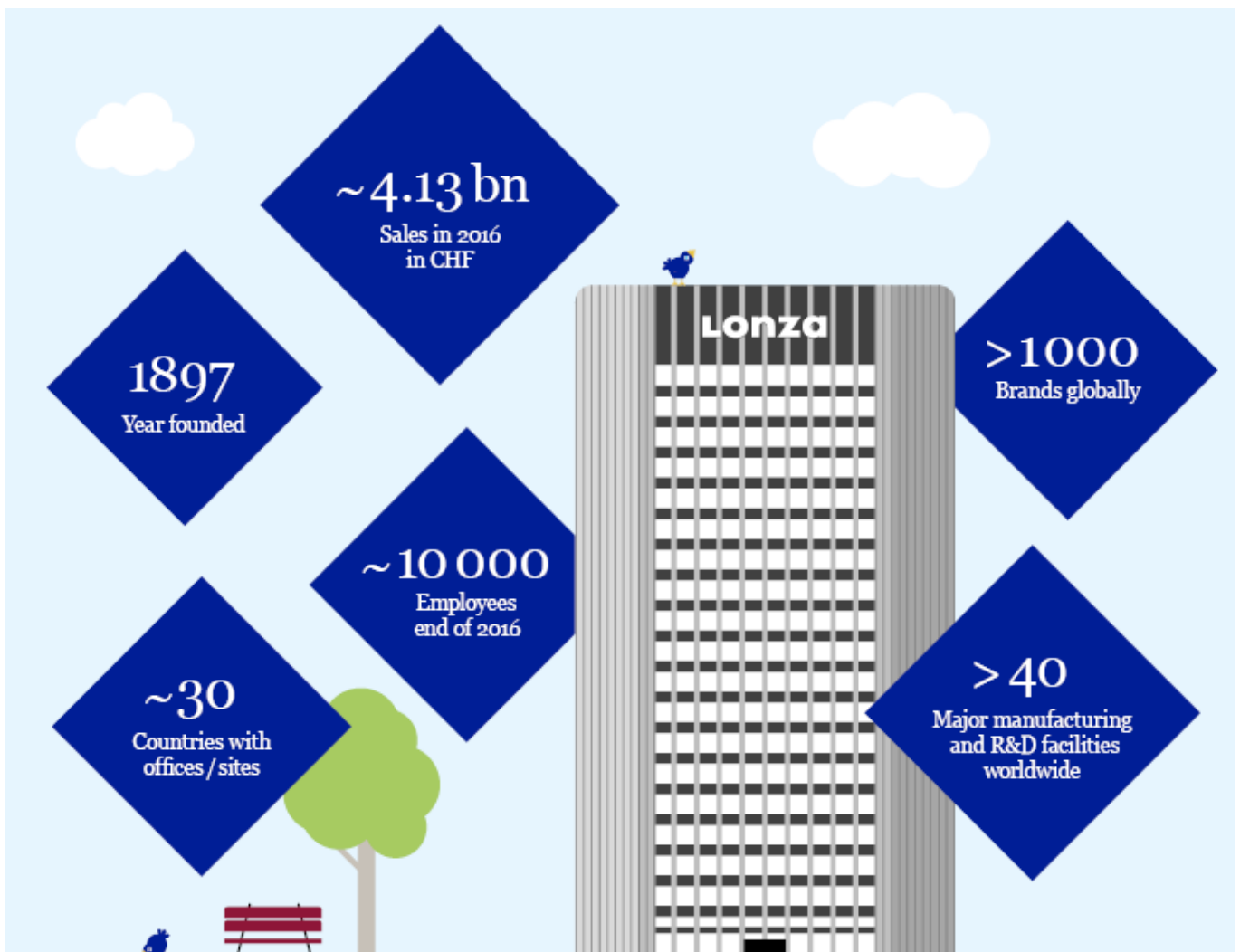
With sites that span the world – from Canada to China, from Switzerland to South Africa, from the US to the UK, and from Singapore to Spain – Lonza is a global company that supplies the pharmaceutical, biotech and specialty ingredients markets.

Drawing on more than a century of experience, we apply our biotech expertise and fine chemical know-how to create customer solutions that contribute to healthier living and that enhance the overall quality of life.

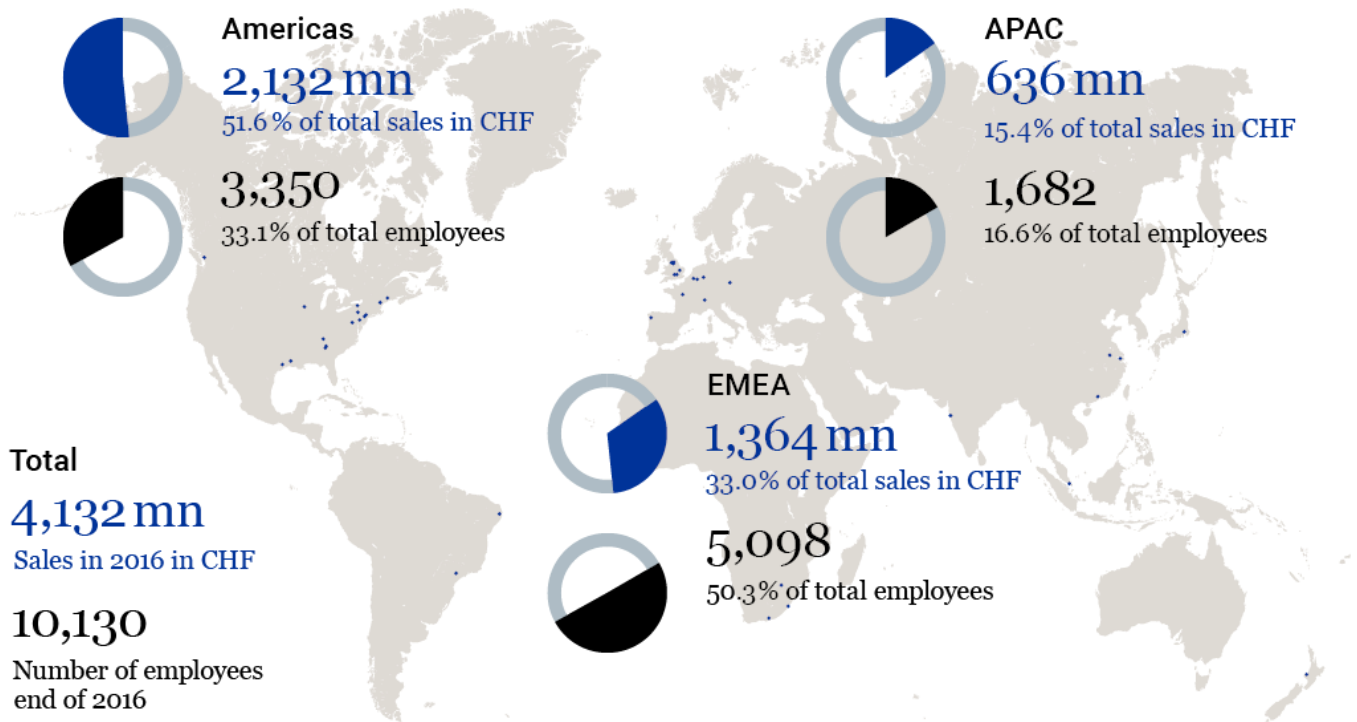
Our services and products range from active pharmaceutical ingredients to drinking water sanitizers, from nutritional and personal-care ingredients to agricultural products, and from industrial preservatives to microbial control solutions that combat dangerous viruses, bacteria and other pathogens.

Global Footprint

Closer Than You Think®



Global Footprint



Closer
Than You
Think[®]

Lonza



Slug Control



Food
Preservatives



Crop
Protection



Drinking Water
Sanitization

Vitamin B3
Compounds

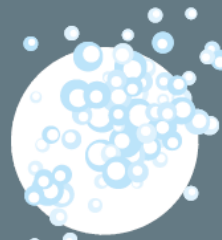


Anti-Aging
Actives



Pool and Spa
Sanitizers

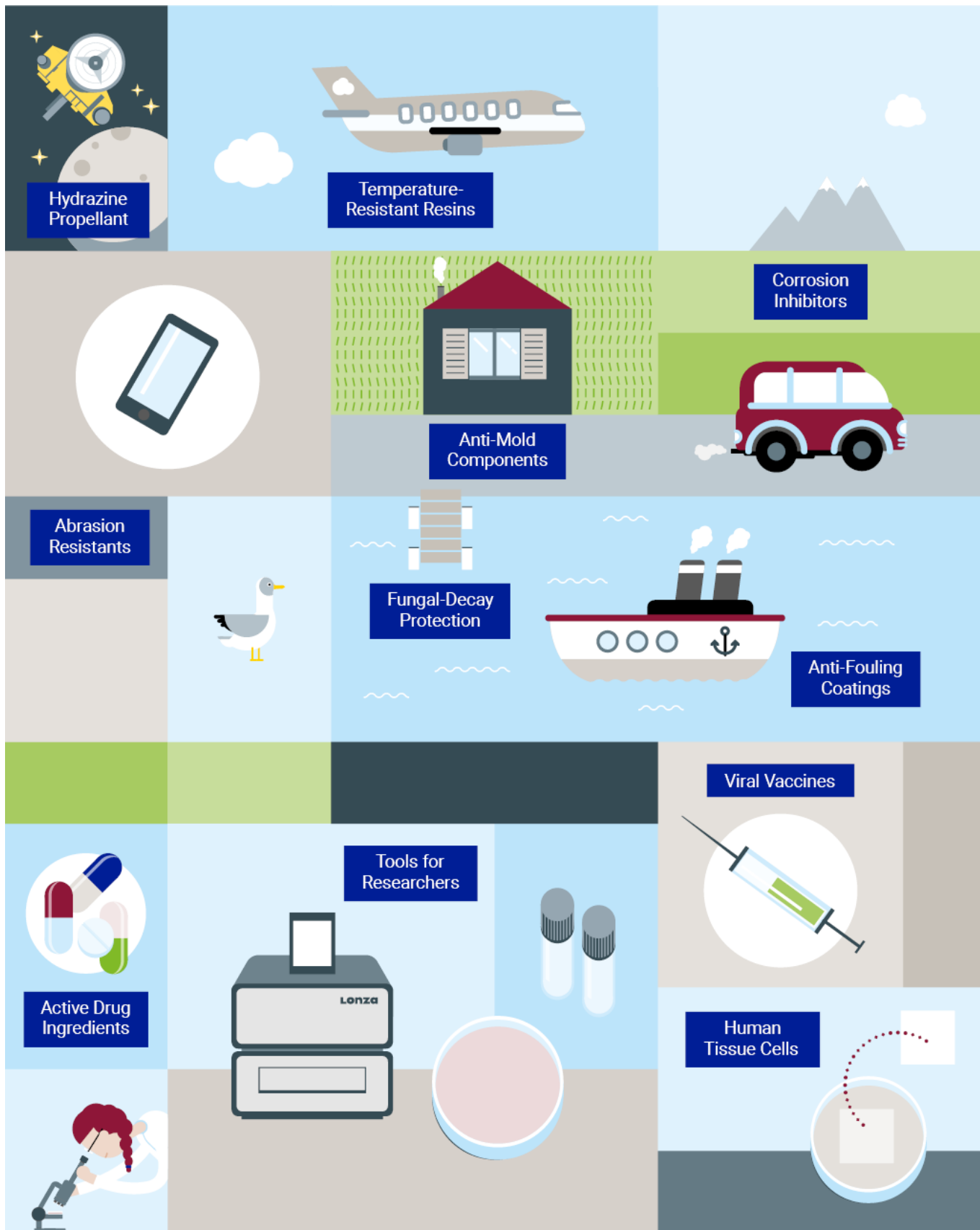
Pet Food
Supplements



Antidandruff
Agents

Disinfectant
Wipes





Financial Highlights 2016

Overview

Throughout 2016 Lonza continued to deliver record financial results with outstanding improvements across all key performance indicators, leading to the best-ever full-year results in the company's history. The strong sales growth and high margin improvement are the result of the diligent and disciplined application of the company's successful strategy.

Compared with the same period in 2015, Lonza recorded strong sales growth of 8.7% (8.2% in constant exchange rates) to CHF 4.13 billion and record-high CORE EBIT growth of 24.2% to CHF 651 million in reported currency.

The outstanding improvements were particularly driven by commercial excellence and strong operational execution in the Pharma&Biotech segment.

CORE RONOA substantially improved to 21.5%, compared with 16.4% last year. The operational free cash flow before acquisitions was strong with CHF 638 million, even after significantly increased capital expenditure. Operational free cash flow after acquisitions was below last year with CHF 408 million (CHF 667 million in 2015), mainly due to the purchase of InterHealth Nutraceuticals (USA). Nevertheless, net debt reduction was on track, reaching CHF 1.58 billion (CHF 1.66 billion in 2015).

Key Figures Lonza

Million CHF	2016	Change in %	2015
Sales	4,132	8.7	3,803
CORE EBIT ¹	651	24.2	524
CORE EBITDA ¹	918	15.8	793
Capital expenditures	366	38.6	264
Net debt	1,584	(4.6)	1,660
Headcount	10,130	3.1	9,829

¹ **CORE Definition:** Lonza believes that disclosing CORE results of the Group's performance enhances the financial markets' understanding of our company because the CORE results enable better comparison across years. Therefore, the CORE results exclude exceptional items such as restructuring charges, acquisition-related costs, environmental-remediation costs, impairments and amortization of acquisition-related intangible assets, which can differ significantly from year to year. For this same reason, Lonza uses these CORE results in addition to IFRS as important factors in internally assessing the Group's performance.

Financial Summary 2016

- Sales grew 8.7% in reported currency (8.2% in constant exchange rates), rising to CHF 4.13 billion
- CORE EBITDA grew 15.8% in reported currency (15.4% in constant exchange rates), reaching CHF 918 million
- CORE EBIT experienced remarkable growth of 24.2% in reported currency (23.7% in constant exchange rates), increasing to CHF 651 million
- CORE RONOA also improved significantly to 21.5% (16.4% in 2015)
- Debt reduction remained on track with solid cash generation, resulting in a net debt/EBITDA of 1.73x, despite the InterHealth Nutraceuticals acquisition

Lonza continued our efforts to restructure our portfolio in order to further accelerate its operational performance in the future. As part of these efforts, Lonza decided to divest the peptide facility in Braine (BE) and restructure some other smaller operations, which led to combined impairments and restructuring costs of CHF 82 million.

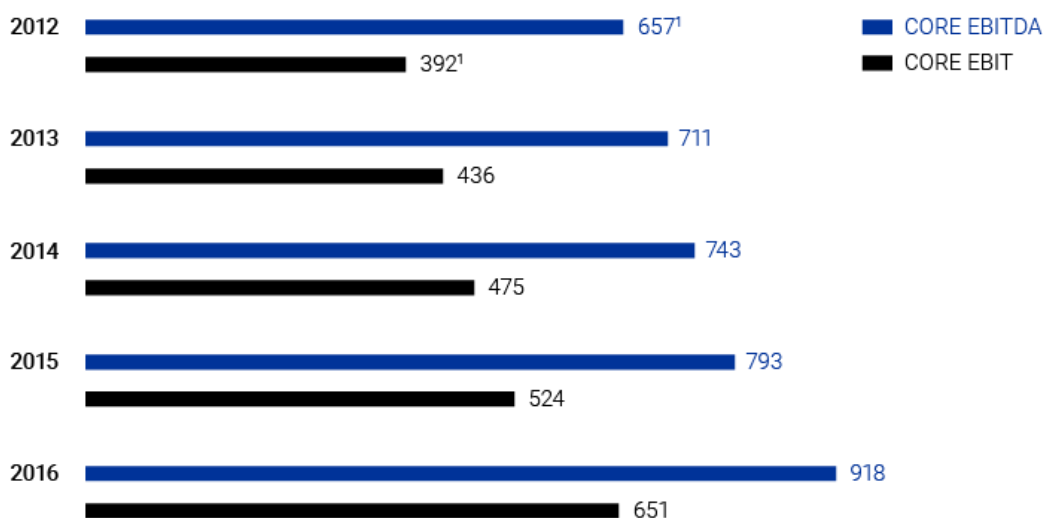
Historical Progression

Sales Progression (in million CHF)



¹ Restated to exclude Performance Products, divested at the end of 2012.

CORE EBITDA and CORE EBIT (in million CHF)



¹ Restated to exclude Performance Products, divested at the end of 2012.

Capital Expenditures (in million CHF)



Net Debt (in million CHF)



Governance

Board of Directors (BoD)

- Audit and Compliance Committee
- Nomination and Compensation Committee
- Innovation and Technology Committee

Executive Committee (EC)

CEO – CFO¹ – COO – COO – CHRO²

Segments	Operational Units	Corporate Functions	Global Business Service Organization
Pharma&Biotech Specialty Ingredients			

¹ As of 1 October 2016, Rodolfo Savitzky succeeded Toralf Haag as Chief Financial Officer (CFO)

² As of 1 February 2017, Fridtjof Helemann, Chief Human Resources Officer (CHRO)

Board of Directors

The Board of Directors is Lonza's supreme governance body, consisting of the Chairman, the Vice Chairman and the other members. All Board members are elected by the Annual General Meeting. The Board defines the strategic direction and is responsible for the ultimate management of Lonza. It monitors the business and financial performance against agreed goals and objectives, ensures that appropriate controls and systems are in place to manage risks and is committed to maintaining the highest standards of integrity and transparency in its governance of Lonza.

Executive Committee

The Executive Committee is responsible for managing Lonza worldwide and for implementing policies and strategies as defined by the Board of Directors. It supports and coordinates the activities of the segments, operational units, corporate functions and the Global Business Service Organization. Appointed by the Board of Directors, the Executive Committee performs the duties delegated to it by the Board. The Executive Committee consists of the Chief Executive Officer, the Chief Financial Officer and the two Chief Operating Officers³.

³ As of 1 February 2017, Fridtjof Helemann, Chief Human Resources Officer (CHRO), was appointed to the Executive Committee. As a result, the Executive Committee has been expanded from four to five members.

Committees

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

Audit and Compliance Committee

The Audit and Compliance Committee meets and consults regularly with the Executive Committee, the Lonza Audit Services (Internal Audit) and the independent auditors to review the scope and results of their work and performance, according to the Audit and Compliance Committee Charter. This committee reviews the systems of internal control and financial reporting, as well as compliance with laws and regulations.

Nomination and Compensation Committee

The Nomination and Compensation Committee is entrusted with the review and recommendation of compensation policies and programs, as well as the compensation of the members of the Executive Committee and key executives. Furthermore, this committee evaluates potential members of the Board of Directors.

Innovation and Technology Committee

The Innovation and Technology Committee supports innovation and technology by monitoring potential technology breakthroughs, supporting management in driving innovation projects and providing and facilitating contacts, e.g. with academia and research institutions.

For more information, please see the [2016 Corporate Governance Report](#).

Management and Company Structure

Lonza's organizational structure, consisting of the two market-focused segments Pharma&Biotech and Specialty Ingredients, enables a dedicated approach to our target markets and allows us to serve our customers' needs in the most-efficient way possible.

Leadership



From left to right: Christoph Mäder, Thomas Ebeling, Antonio Trius, Werner Bauer, Fridtjof Helemann, Barbara Richmond, Marc Funk, Rolf Soiron, Richard Ridinger, Sven Abend, Andreas Bohrer (Company Secretary), Margot Scheltema, Jürgen Steinemann, Rodolfo Savitzky, Jean-Daniel Gerber, Patrick Aebischer

Segments

The core competencies that span Lonza's segments are advanced manufacturing and quality-control systems, superior regulatory expertise, in-depth market knowledge, sales, marketing and business development, as well as extensive technical customer-support and R&D capabilities.

Lonza participates in the following segments:

Pharma&Biotech

- Mammalian Manufacturing
- Chemical and Microbial Manufacturing
- Clinical Development and Licensing
- Emerging Technologies
- Bioscience Solutions

Specialty Ingredients

- [Consumer Care](#)
- [Agro Ingredients](#)
- [Coatings & Composites](#)
- [Water Treatment](#)

Operational Units

Operational Units are divided into four: Pharma&Biotech Operations and Research & Technology, along with Specialty Ingredients Operations and Research & Technology.

Corporate Functions

Corporate Functions include Human Resources, Finance & Controlling, IT, Corporate Development, Engineering, Legal / IP, Logistics and Purchasing, Quality, Corporate Communications, Investor Relations and Environment, Health and Safety. These internal service providers set targets, provide guidelines and enforce standards. Also, they have the clear goal of fulfilling the global governance role for all parts of the company.

Global Business Service Organization

The Global Business Service Organization (GBSO) supports our market activities by implementing corporate guidelines and driving service excellence. By establishing standardized and harmonized solutions that enable the implementation of innovations at pace and scale, the GBSO is helping to facilitate Lonza's profitable growth. Key focus areas are on the critical business support functions.

Holding Company and Listed Companies

Lonza Group Ltd, with the registered office in Basel (CH), is the ultimate parent company of the Lonza Group. Except for Lonza Group Ltd, no company belonging to the Lonza Group is listed. Please refer to the [Shares and Participation Certificates section](#) 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 32: Principal Subsidiaries and Joint Ventures](#).

Investor Information

Share Information

Shares of Lonza Group Ltd are listed on the SIX Swiss Exchange and were included in the Swiss Leader Index (SLI) in 2016. Lonza also maintains a secondary listing on the SGX Singapore Exchange. The nominal value of the Lonza Group Ltd share is CHF 1. Lonza's share price closed at the end of 2016 at CHF 176.30, which represents an increase of 8.1% in 2016.

The free float in Lonza Group Ltd registered shares reached 99.76% at year-end, and the average daily trade volume was 161,861 shares in 2016.

Listing and Security Information

Stock Exchange Listing / Trading:

- SIX Swiss Exchange
- SGX Singapore Exchange

Common Stock Symbols

- Bloomberg LONN VX
- Reuters LONN VX
- Telekurs LONN
- SGX O6Z

Security Number

- Valor 001384101
- ISIN CH0013841017

Upcoming Financial Events

Date and Time	Event
25 April 2017, 10:00 am CET	Annual General Meeting for the Financial Year 2016 Congress Center Basel, Switzerland
26 April 2017	Q1 2017 Business Update
26 July 2017	Half-Year Report 2017
26 October 2017	Q3 2017 Business Update
24 January 2018	Full-Year Report 2017
4 May 2018, 10:00 am CET	Annual General Meeting for the Financial Year 2017 Congress Center Basel, Switzerland

Shareholdings

According to disclosure notifications filed with Lonza, the following shareholders held more than 3% of Lonza's share capital as of 31 December 2016:

Principal Shareholders	%
BlackRock, Inc., New York, NY (USA)	10.34
Massachusetts Mutual Life Insurance Company, Springfield, MA (USA)	4.51
Norges Bank (the Central Bank of Norway), Oslo (NOR)	3.78

Lonza knows of no other shareholder(s) that owned more than 3% of our share capital as of 31 December 2016. To the best of Lonza's knowledge, the above-mentioned shareholders are 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 2016, please refer to the [SIX Swiss Exchange disclosure platform](#).

Share Price Development 2016

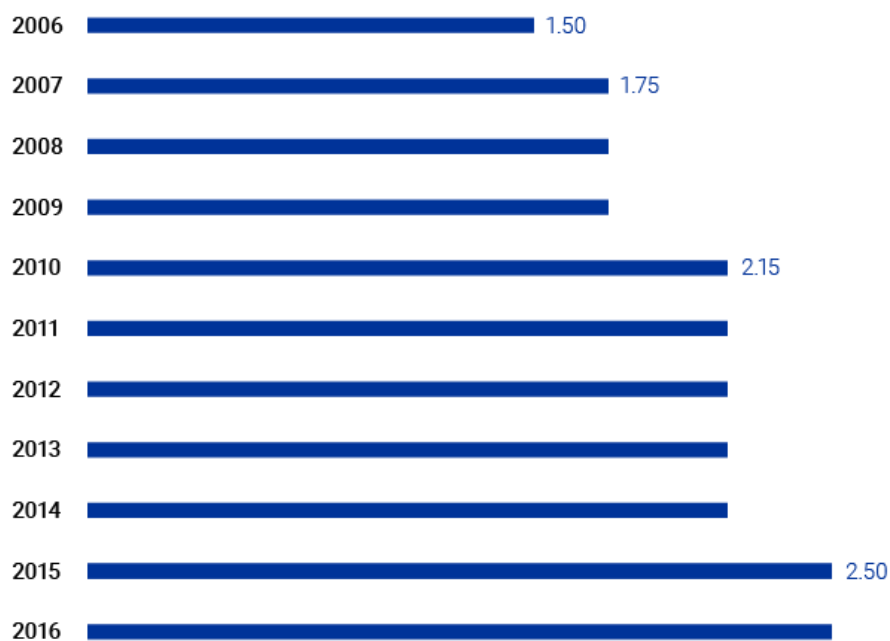


	CHF	
Share price high	189.00	A Full-Year 2015 Results
Share price low	133.70	B Lonza Annual General Meeting (AGM)
Share price at year-end	176.30	C First-Quarter 2016 Business Update
		D Dividend Payment
		E Half-Year 2016 Results
		F Capital Markets Day
		F Third-Quarter 2016 Results

Lonza Share Price Development vs. Swiss Leader Index and the Swiss Market Index (Rebased)



Dividend Payment History (in CHF/Share)



Ten-Year Overview of Major Highlights

million CHF	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sales	2,870	2,937	2,690	2,680	2,692	3,925	3,584	3,640	3,803	4,132
Result from operating activities (EBIT)	408	441	239	374	261	340	253	423	428	486
Net capital invested	3,277	3,768	3,900	3,688	5,667	5,437	4,958	5,224	4,859	5,026
Return on net capital invested (RONOA) in %	14.1	13.8	6.7	10.8	6.9	7.5	5.9	10.3	10.8	12.7
Headcount	6,929	8,462	8,386	8,280	11,001	10,789	9,935	9,809	9,829	10,130

Significant News Releases

The most significant news releases, other than results publications, during the course of 2016 were the following:

Date	News Release
13 January 2016	Lonza Expands Single-Use Manufacturing Capacity in Slough (UK) Facility to Meet Customer Demand
2 February 2016	Lonza to Build Capabilities for Drug Product Development Services, Enabling One-Stop-Shop Solutions for Customers
8 February 2016	Kodiak Sciences Inc. and Lonza Announce Agreements for the Development and Manufacture of Medicines for the Treatment of Retinal Disease
10 May 2016	Rodolfo Savitzky Appointed as New CFO for Lonza Group to Succeed Toralf Haag, Who Was Appointed as CFO of the Voith Group in Germany
9 June 2016	Lonza and bluebird bio, Inc., Establish a Long-Term Commercial Manufacturing Agreement for Lenti-D™ and LentiGlobin™ Drug Products
30 June 2016	Lonza Acquires Triangle Research Labs, a Hepatocyte Provider Based in North Carolina (USA)
15 August 2016	Lonza Extends Its Reach in the Healthcare Continuum with Acquisition of InterHealth Nutraceuticals
12 October 2016	Lonza Prices CHF 250 Million Five-Year Straight Bond with a 0.125% Coupon
13 October 2016	Lonza and Forty Seven, Inc., Announce Strategic Manufacturing Agreement for Immuno-Oncology Therapeutic Antibody Pipeline
27 October 2016	Lonza and Clovis Oncology Sign Strategic Long-Term Manufacturing Agreement to Secure Supply of Rucaparib
2 November 2016	Lonza Holds Grand Opening for State-of-the-Art Drug Product Services Labs
7 December 2016	Lonza to Divest Peptides Business and Operations in Braine-l'Alleud, Belgium, to PolyPeptide
15 December 2016	Lonza to Acquire Capsugel to Create Leading Integrated Solutions Provider to the Global Pharma and Consumer Healthcare Industries

For a comprehensive review of the media releases issued during 2016, refer to www.lonza.com/news

Delivering on Our Strategy

Founded in 1897 in the Swiss Alps, Lonza is one of the world's leading and most-trusted suppliers to the pharmaceutical, biotech and specialty ingredients markets with more than 40 major manufacturing and R&D facilities and approximately 10,000 employees worldwide. We harness science and technology to create products that contribute to health and well-being and that enhance the overall quality of life.

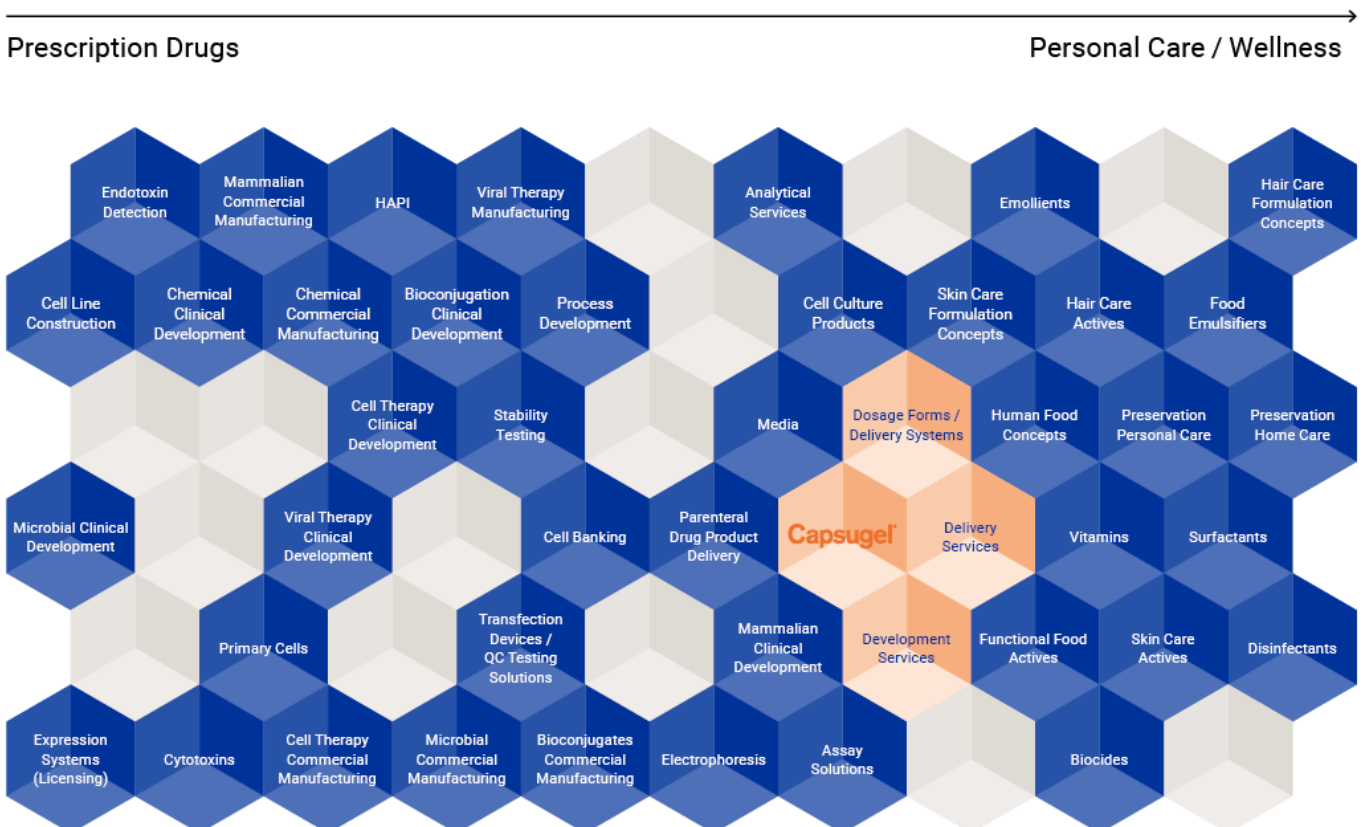
The Healthcare Continuum

Lonza's overall strategy is to be the leading integrated solutions provider for the global pharmaceutical and consumer healthcare and nutrition markets – from prescription drugs to personal care and wellness. These markets along the healthcare continuum span all of our Pharma&Biotech and many of our Specialty Ingredients businesses. Last year's record financial performance – the fifth year in a row that we delivered improvements on all major financial performance indicators – is a testament to the value of our strategic focus and growth plans.

Getting Closer to the Patient and Consumer

In September 2016 Lonza strengthened our exposure to the healthcare continuum by acquiring InterHealth Nutraceuticals (USA). InterHealth complements Lonza's existing nutritional portfolio in the area of sports nutrition, weight management, immune health and pet health. Its proprietary UC-II® joint health care ingredient, for example, is revolutionizing the treatment of hip, knee and other joint pain and stresses.

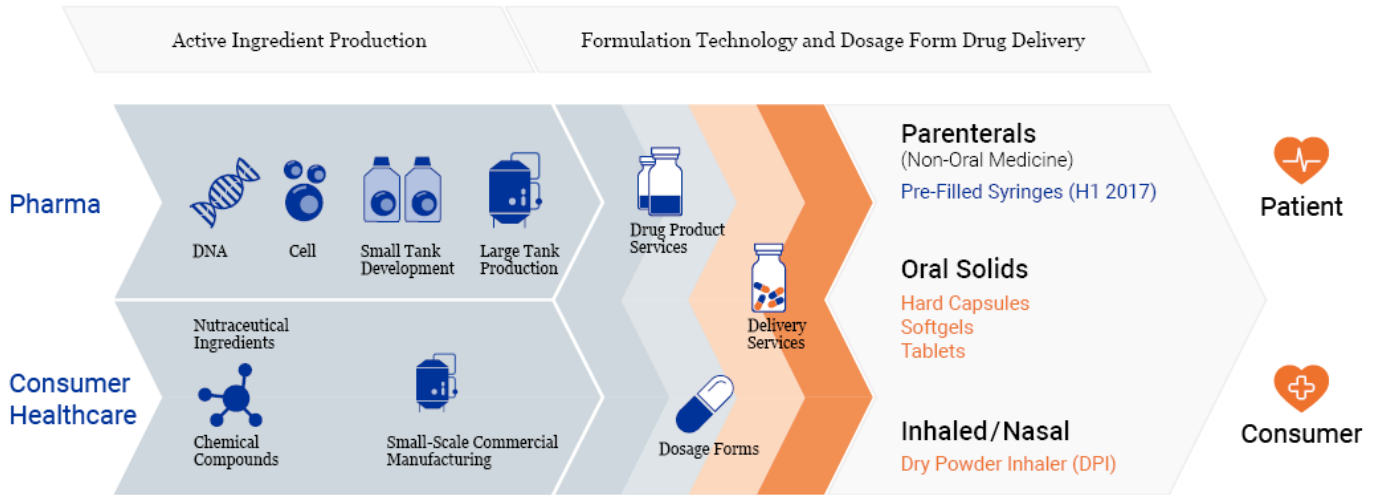
Another major stride in decisively positioning the company to grow along the healthcare continuum was made in December 2016 when we announced our intention to acquire Capsugel. This acquisition is designed to create a leading integrated, value-added solutions provider in drug development, formulation, delivery technologies and manufacturing for the global pharma and consumer healthcare and nutrition industries.



The acquisition of Capsugel will accelerate growth and deliver value along the healthcare continuum by complementing our existing offerings and by opening up new market opportunities in the pharma and consumer healthcare and nutrition industries.

With Capsugel Lonza will add a trusted brand with a large breadth of technologies and will expand the market reach of our contract development and manufacturing organization (CDMO) and products businesses. This addition will also support Lonza's strategic ambition of getting closer to the patient and end consumer.

The Capsugel acquisition is expected to close in the second quarter of 2017 and is subject to certain regulatory approvals and other customary closing conditions.



Cross-Business Synergies

Our strategic approach to our segments is twofold: capitalizing on cross-business synergies offered by vital technology links and balancing the risk profile between the Pharma&Biotech segment and the Specialty Ingredients segment.

Cross-Business Synergies

Global Megatrends

With more than a century of experience, Lonza has a unique capability to connect our biotech expertise with our fine chemical know-how to provide the best solutions for our customers now and in the future. As part of our overall strategy, we want to play a significant role as a global player in target market segments that have a natural growth dynamic, following the megatrends that we can see and anticipate for the 21st century. These megatrends include the need for appropriate medical treatment; growing consumer needs for high-end preventive healthcare and well-being; intelligent use and protection of our resources; and the need for clean, potable water and abundant food.

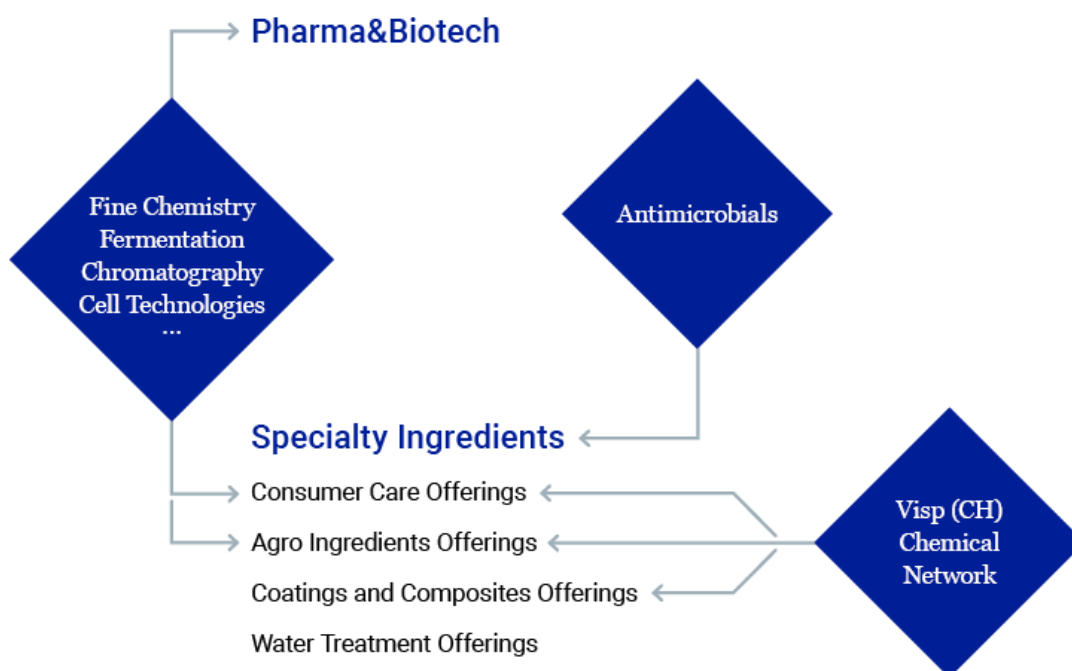
Global Megatrends

Quality Initiatives

Another key strategic focus is quality, where Lonza's Pharma&Biotech businesses are earning a reputation as a leader in error prevention and advanced human performance management. Around the world we are driven by our firm commitment to quality as we strive for operational excellence across regions and functions, every day. Through our Dedicated to Excellence and Error Prevention System initiatives, we are harnessing continuous improvement principles and practices to provide a safe working environment for our employees and to ensure our products and services are the best they can be. The tools and techniques employed by Pharma&Biotech are being shared with and embraced by the Specialty Ingredients operations, particularly those approaches for hygiene and personal care ingredients that face strict regulatory standards that are akin to those required of medicines.

Quality Initiatives

Cross-Business Synergies



Applying Knowledge Across the Business

One of Lonza's strategic goals is to improve our ability to transfer knowledge, experience, technology and best-in-class business practices throughout the organization. Our quest to capitalize on Lonza's cross-business synergies benefited from an interdisciplinary, global Research & Technology (R&T) conference with 140 Lonza scientists and external experts at our multi-business site in Visp (CH) in late 2016.

The choice of the Visp site was appropriate for it serves as a Center of Excellence that broadly shares technologies, raw materials and expertise used in many different businesses, including Pharma&Biotech, Consumer Care, Coatings and Composites and Agro Ingredients.

Cross-Segment Synergistic Technologies

Thermal separation technologies are used in a majority of chemical processes across both of our segments. Both segments also draw upon solid particle technology for manufacturing and for improving their product formulations. Continuous reaction technologies, which are used widely in Specialty Ingredients, are also now being utilized by our Pharma&Biotech operations. The Specialty Ingredients process analytical team is also supporting Pharma&Biotech chemistry in the development of at-line and in-line process analytical solutions.

In the closely related realms of quality manufacturing and regulatory compliance, Pharma&Biotech is sharing decades of expertise in current Good Manufacturing Practices (cGMP) with Consumer Care in order to meet strict, pharma-like regulatory requirements that may apply to certain Consumer Care ingredients.

Cross-Business Product Formulations

One major active ingredient that is used in multiple business units is our pyrithione chemistry. These products, which are used as active antidandruff ingredients in shampoos, are the primary active ingredient in marine anti-fouling paints to deter the growth of barnacles, slime and other foulants on ships' hulls and on aquaculture fishing nets. They are also used to help preserve and protect architectural paints and coatings.

In our Consumer Care business, for example, our Laracare[®] Quat is a hair-conditioning agent derived from a nutrition ingredient. Additionally, Lonza teams are working with skin-care customers to explore the use of our Pharma&Biotech technology for their manufacturing needs or using our formulating experience for their advanced skin-care products.

Within the Pharma&Biotech segment, our custom development business has developed cell-culture and other media that our Bioscience Solutions business is in turn selling to third parties.

In another cross-business example, our Agro Ingredients business is incorporating biocides from Water Treatment and other businesses to provide customers with specific biocides for the pre-and post-harvest treatment of seeds and crops. Treatment with Lonza's special biocides just before or after harvesting helps to ensure that the harvested fruits and vegetables are delivered fresh to distributors and end consumers.

Solutions for Megatrends

Profitable Solutions for Urgent Needs

Drawing upon nearly 120 years of experience in satisfying both fundamental and emerging needs of humans, we at Lonza are providing profitable solutions to the most urgent issues being generated by our current era's growing, aging and more affluent population. Our biotech expertise and specialty chemicals' know-how enable us to satisfy megatrend needs along the entire healthcare continuum – for disease prevention and treatment, clean water, healthful and abundant food, and enhanced hygiene and wellness.

Lonza's businesses are satisfying vital global needs that often span the intersecting effects of four key global megatrends:

- [Growing World Population](#)
- [Aging of Global Populations](#)
- [Rapid Growth of Megacities](#)
- [Growth of Middle Classes in BRIC and VISTA Countries](#)

BRIC countries are Brazil, Russia, India and China. VISTA countries are Vietnam, Indonesia, South Africa, Turkey and Argentina.

Growing World Population

In a world where the population exceeds 7 billion people and will reach an estimated 10 billion by 2050, according to United Nations research, water is an increasingly scarce and valuable resource. Whether for drinking, cooking, agricultural irrigation, beverage production, food processing or industrial applications, water needs are growing and are often in conflict. To address the needs for both clean water and water conservation, Lonza is pursuing growth opportunities across multiple market segments in developed and emerging nations.

Growing populations, including rising middle classes in emerging countries and megacities, are triggering needs for simple yet effective hygiene products to combat a broad range of pathogens, including key bacteria and viruses that are often present in healthcare facilities. Around the globe our sanitizers and disinfectants are used in hospitals and other medical settings, industrial cleanrooms, homes, restaurants and institutional food-preparation facilities, schools, offices, gyms and cruise ships.

Our Nutrition and Agro Ingredients businesses are at the forefront of helping address consumers' growing needs for safe, healthful and abundant foods and supplements.

Agro Ingredients' custom-manufactured crop growth and protection products, for example, help our customers optimize yields, often with less water and a reduced need for pesticides. Lonza is a world leader in molluscicides, with proprietary products that protect lettuce, other greens and rice from the damage caused by slugs and snails.

Aging World Populations

The rapid growth in elderly populations is tied to the growing prevalence of cancer, heart disease, diabetes and many other age-related illnesses. Lonza's Pharma&Biotech segment plays a major role in the development of medicines that have the potential to extend and improve the quality of life in aging populations.

The need for effective yet reasonably priced medicines and therapies not only applies to BRIC and VISTA nations, but also to developed nations. Lonza is a leader worldwide in helping customers create novel yet cost-effective “small-molecule” medicines, as well as the more complex “large-molecule” medicines like biologics. At our state-of-the-art, small-molecule production sites in Visp (CH) and Nansha (CN), our capabilities range from initial chemical process development and subsequent scale-up strategies and process optimizations to supplying products for clinical tests through final commercial manufacturing.

Also Lonza is an innovative pioneer in the development of the most-advanced, cutting-edge medicines and therapies in the world today, such as gene-based medicines for patients with serious diseases.

Lonza’s Nutrition business is addressing the needs of an aging population, in part by the 2016 acquisition of InterHealth, a leader in research, development, manufacture and marketing of proprietary, value-added nutritional ingredients for use in dietary supplements.

In 2016 the InterHealth acquisition helped propel the Nutrition business’s strategy of providing “Active Ingredients for Living Actively”. The focus here is accelerating development of our nutritional portfolio in areas of muscle health, healthy weight maintenance, mobility (e.g. joint health), and healthy immune system and digestion support.

With our Nutrition, Personal Care, Hygiene and Agro Ingredients businesses, Lonza’s Consumer Care business unit is at the forefront of helping people feel and look their best. The rapid growth of elderly populations in the West and in Asian nations such as China and Japan is driving ever-rising demand for healthful foods and nutritional supplements, anti-aging cosmetics and other personal-care products.

Rapid Growth of Megacities

Movement of populations from rural areas to megacities is generating a need for many Lonza products and services, including sustainable building products. Wood is one of the world’s most vital, renewable, natural resources; and engineered wood is an advanced material that provides strength, durability and beauty in buildings.

Lonza Wood Protection offers innovative technologies that add a preservative and water-repellent property to our customers’ engineered timbers, as well as products that combine fungicides and insecticides to protect engineered wood from insects and decay.

The threat of fire in densely developed cities helps explain the growing use of our fire-retardant treatments for wood used in schools, apartment complexes, homes, train stations, hospitals and other areas.

In crowded urban areas such as megacities, municipalities and industries are conserving precious water resources by treating and recycling wastewater so that it can be used for other purposes. We provide both sanitizers and organic coagulants that treat the water and reduce the amount of sludge, which in turn means less waste disposal.

Growth of Middle Classes in BRIC and VISTA Countries

The growing middle classes in BRIC and VISTA countries will generate increasing demand for medication. With modern facilities in Singapore and China, our Pharma&Biotech segment is capitalizing on rising demand in Asia Pacific and elsewhere for affordable medicines and biotech therapies.

Many of these nations are in hot, humid areas of the planet. This fact underscores the value of our Coatings and Composites business, which helps to fight mold and the “sick-building syndrome” in facilities by providing protective biocides and fungicides for paints, wallboard, ceiling tiles, adhesives and other building products.

Quality Initiatives

Driving a Proactive Quality Culture Through Human-Performance Management

Human performance is a key factor for business sustainability as process-related deviations attributed to human errors can impact safety, quality and security of supply.

To advance human performance towards the next level, Lonza built a global Error Prevention System (EPS) on the backbone of our Operational Excellence program. Our EPS cultural change initiative also benefited from our participation in the Biopharma Operations Group, which intensively studied best practices and human-performance management systems and procedures from the nuclear power and aviation industries.

Launched in 2014 the EPS initiative has now reduced deviations across all Lonza Pharma&Biotech sites worldwide by approximately 50%. Customers are impressed by the EPS program because it delivers often dramatic reduction in manufacturing issues related to their products and improves on-time delivery of high-quality drugs. Collaborating with customers and other industry members, we have shared insights into EPS in vital industry forums and numerous industry journals and reports.

Previously the focus for performance improvement was mainly on technical solutions and controls. Employees and their knowledge weren't involved, and it was hard to get them engaged. Now, rather than focusing solely on what was done wrong, we ask ourselves what environment an operator needs to do a good job, thereby turning the whole thing upside down. The bottom-line impact, though, comes through seeing tangible improvements – site to site and across the organization. Evidence shows that human-performance efforts are preventing negative outcomes by powerfully engaging operators and others in proactive and preventative efforts.

In addition, Lonza has launched our Dedicated to Excellence strategy, which aims to engage all employees in systemic thinking and achieving excellence in all that we do throughout Pharma&Biotech businesses, sites and functions. The program consists of five pillars: safety, quality at source, on-time delivery, cost efficiency and innovation. It introduces a standard set of operational targets and measures that will strengthen our competitive position and generate strong customer intimacy and satisfaction.

The Dedicated to Excellence and EPS initiatives are generating many benefits, from a dramatic reduction in deviations and related costs to improved customer satisfaction and a positive working environment. However, the ultimate objective of these efforts is to enhance patient health and safety by manufacturing drug products of the highest quality.

Sustainable Values

Investing in Our People

Investing in Our Communities

Investing in Responsible Sourcing

Investing in Environment, Health and Safety

Investing in Our People

Our people are our key competitive advantage; so we continue to focus on developing high-performing teams and individuals, thereby making Lonza “The Place to Go, Stay and Grow.”

We recognize that individual engagement and collective intelligence play an essential role on Lonza’s continued journey to excellence and outperformance. Accordingly, we have worked with our employees and senior leaders through various channels, including our global employee survey “Life@Lonza” and our “Lonza Talent Philosophy Survey,” to co-create our talent management philosophy.

We believe in and expect strong and sustained employee performance. Consequently, business results and behavior directly influence individual career progression and pay. Leaders in people management roles need to deliver results, as well as build the quality and depth of their teams.

Using state-of-the-art technologies and tools, we promote transparency of communication and process rigor and vigor to guide our journey to becoming high-performing teams and individuals.

Balancing differentiation and efficiency, we have built integrated Lonza Academies to address unique business needs within selected business areas; and we have plans to expand this program across the company. Through these intertwined academies, we incorporate corporate-wide strategic priorities, quality and operations principles and program management skills to help specific business units develop their business-critical capabilities. Similarly, we support functional units to deliver service excellence with greater depth of expertise.

Core and functional competencies are the foundation of Lonza's success model. Following our ambition to co-create the desired attitudes, skills and capabilities needed for Lonza, we tapped into the collective intelligence of our senior leaders and top talent to develop our unique competencies. Together with participants of our Leadership Acceleration Program, best-practice behaviors were validated for each of our job grades based on the guiding principle of being simple, tangible and relevant. The same approach and framework are used to define functional competencies like sales, marketing or supply chain. All core and functional competencies will be integrated into career development paths and profiles that support leaders and teams in helping individuals grow and develop.

Following our conviction that strong teams win championships, we support employees through feedback, assessment, experiential learning and coaching to identify their journeys as individuals or leaders and to help them grow to their potential. Building on effective and authentic self-leadership, we support teams on their road to outperformance.

To attract, develop and retain the best and brightest employees, we will continue to update and refine our people strategy to ensure Lonza remains “The Place to Go, Stay and Grow.”

Investing in Our Communities

Caring About Communities Around the Globe

By cultivating relationships and contributing our knowledge, expertise, logistics and financial support, Lonza is creating sustainable value for our communities around the world. With our commitment to ethical, social and environmental responsibility and sustainability, Lonza supports events, projects and programs directly linked to Lonza's employees and sites. Our sponsoring activities focus on the following five priority giving areas:

- [Social and Humanitarian](#)
- [Education and Science](#)
- [Health and Sports](#)
- [Ecology](#)
- [Arts and Culture](#)

In the communities where we operate, Lonza is much more than a faceless corporation. We are neighbors, a vital source of jobs, a charitable sponsor of local schools and civic and cultural projects, and often a significant contributor to local economies. While our financial donations are vital, our employees also play a critical role by volunteering in programs and projects in our priority areas.

We want to be a reliable, long-term and active partner and to engage at the earliest possible stage of any community project we sponsor in order to optimize the use of available resources. Accordingly, we focus our resources on a small number of selected projects where our engagement can make a significant difference, rather than on a vast number of projects.

Social and Humanitarian

Supporting Vitamin Angels Programs

Lonza's Nutrition business supports Vitamin Angels, a global charity that helps at-risk populations in need – specifically, pregnant women, new mothers and children under five – gain access to lifesaving and life-changing vitamins and minerals. We have been a supporter of Vitamin Angels since 2005. In 2016 Lonza donated vitamin B3 compounds to help Vitamin Angels reach 300,000 expecting and new mothers in over 50 countries.

Extending a Caring Hand

During this year's 5th Annual PEACH (People Extending a Caring Hand) Project, Lonza Water Treatment personnel and our professional pool dealer customers from North America teamed up with the non-profit organization Tiempo de Dar in improving the Lomas de Valle community elementary school in Mexico. The school has 56 students in 1st through 6th grades in a rural area in the state of Jalisco just outside of Puerto Vallarta (MX). Before our PEACH project, the school operated in two small buildings with dirt floors, no electricity and only one solid wall.

The PEACH project at the Lomas del Valle Elementary School involved 350 hours of “sweat equity” and a budget for purchase of building materials and a water tank. In addition, Lonza employees and dealers were asked to bring school supplies such as notebooks, pens, backpacks and drawing materials for donation to the school.

Supporting Habitat for Humanity

In September 2016 members of the U.S. Legal and Intellectual Property teams worked with Habitat for Humanity as part of their team meeting in Georgia (USA). Habitat for Humanity is an organization that not only builds and refurbishes housing for the underserved but supports them with counseling and mentoring. Under the supervision of Habitat for Humanity's workers, our team installed floor joists, built walls and installed window panels, to name a few tasks.

Cleaning the Path to a Healthier Future

In 2014 the Lonza Corporate Charitable Sponsorship team challenged business units to propose a major, long-term charitable project that would draw on Lonza technologies to enhance the quality of life in an area of desperate need. Ideas began circulating; and after much thought and deliberation, approval was given to Lonza Water Treatment South Africa to address an urgent health threat and concern in Uganda.

One of the poorest countries in the world, Uganda is in dire need of sanitary improvements. Under a three-year project known as Sanitation for Africa, Lonza Water Treatment is teaming up with the non-governmental organization Clean Habitat Uganda to provide our HTH Scientific® sanitizer tablets for use in pit latrines in that poor African nation. Clean Habitat Uganda will distribute our sanitizing tablets to communities serving 5,000 homes.

Pit latrines, also known as outhouses or long drops, serve as household or even community toilets and are an ideal breeding ground for disease and virus-bearing mosquitoes, flies, cockroaches and other insects. One or two (depending on the pit size) of our sanitizing tablets, comprised of dry calcium hypochlorite, are placed into each latrine, where they help combat bacteria, foul odors and insect growth, which in turn helps to control diseases that can be carried by the insects.

In December 2015 a kick-off summit was held in Kampala (UG). In attendance were key persons from the Ugandan Ministry of Health, the Ugandan Ministry of Water, Clean Habitat Uganda and Lonza.

Since the kick-off summit, the sponsored product has arrived in Uganda and is currently being distributed in key identified areas. A community events day was held in November 2016 in Kabasanda (UG) to further educate the community on sanitation, the way HTH Scientific® Pit Latrine Sanitizer Tablets work and the benefits of the tablets.

Find out more about our [Sanitation for Africa Project](#).

Supporting Youth and the Impaired Within the Local Community

In 2016 Lonza Igarassu (BR) supported the organization Associação Ponto Cidadão by donating technology and learning materials. The organization's goal is to provide young people between the ages of 16-24 years professional and psychosocial education so that they are better prepared to enter the labor market.

In addition, the site donated musical instruments and toys to the Association of the Visually Impaired to aid the rehabilitation of children and adolescents with visual impairment, blindness and low vision. The organization serves 50 visually impaired people with the goal of enabling them to live a more independent life by supporting their social, educational and professional integration.

Education and Science

Encouraging Students to Pursue Careers in Science

In 2016 our Pharma&Biotech site in Slough (UK) continued our long-term partnership, which was first initiated in 2002, with the local Burnham Grammar School. Now, more than a decade later, Lonza employee-volunteers are still engaged at the school in a range of activities from sponsoring and judging science competitions to offering career advice, donating lab equipment and offering internship work experiences.

Partnering with Swiss Youth in Science

Another continuing project in 2016 is Lonza's three-year partnership with Swiss Youth in Science, which began in July 2014. Founded in 1967 the foundation Schweizer Jugend forscht (Swiss Youth in Science) supports inquisitive and motivated children and young people with the aim of awakening joy and fascination for scientific work.

With the foundation's series of courses, children and young people become more interested in subjects such as mathematics, computer science, natural sciences and technology; and they learn about options for their future studies or professional careers. Through this intense engagement, Lonza contributes to the promotion of science and helps in the development of the next generation of scientific professionals.

Supporting the Local Community with Donations

Lonza's Walkersville, MD (USA), site has supported their local community for more than two decades by providing sustainable funds for the Lonza Bioscience Scholarship at Hood College. Each year a local student who is interested in science is selected to be awarded funds from the scholarship.

Encouraging Students to Fight Cancer with Science

For the second summer, Lonza's Pharma&Biotech site in Cologne (DE) sponsored a Summer Academy to expose selected students to cancer research at the heart of the Center for Integrated Oncology (CIO) at the University of Cologne and to stimulate their possible career interest in this field. The purpose of Lonza's sponsorship is to encourage students to pursue careers in the Science, Technology, Engineering and Math (STEM) fields – perhaps even with Lonza once their studies are completed.

Sponsoring a Swiss Think Tank

As a corporate citizen interested in the future development of society and its interdependencies with politics and economics, Lonza has been a partner of Avenir Suisse, an independent think tank for economic and social issues, for many years. Avenir Suisse aims to demonstrate a need for political action and to help solve problems by means of initiatives and proposals. To this end it performs analyses based on scientific principles, organizes conferences and participates in public debates. Founded in 1999 it is supported by more than 100 companies and private individuals from all economic branches and regions of Switzerland.

Health and Sports

Getting Fit While Having Fun

In cooperation with the organizers of the Gornergrat Zermatt Marathon, the project “Lonza Makes You Fit” was initiated in Visp (CH) and Basel (CH) in September 2015. As the name suggests, the project aimed to make Lonza employees fit for the half marathon of the Gornergrat Zermatt Marathon, which took place on 2 July 2016.

From the 300 participants who originally signed up, more than two-thirds reached the finish line on top of the Riffelberg Mountain on that Saturday. After the successful half-marathon in 2016, both the cooperation with the Gornergrat Zermatt Marathon and the project “Lonza Makes You Fit” will be continued. With the goal of motivating even more employees to engage in sport activities, Lonza will expand the program in 2017 and complement it with additional activities.

Organizing an Annual Charity Golf Event

The Lonza Harvest Open is an annual charity golf tournament organized by volunteers from the Lonza site in Portsmouth, NH (USA). A fun event for organizers and attendees, it raises awareness and funding for specialized projects for local non-profit organizations in the Seacoast region of Maine, Massachusetts and New Hampshire.

The 2016 Harvest Open was Lonza’s 15th annual event and raised approximately USD 80,000 for selected non-profit charities. Our Portsmouth site employees are pleased to support our local Seacoast region and to be ambassadors of Lonza’s philanthropic values.

Sponsoring the Lonza Arena in Visp

Lonza will be contributing CHF 3 million to the new ice and sports center in Visp, which will officially be named Lonza Arena for the next 20 years. The new sports center will be the home of the EHC Visp and have a capacity of 5,000 spectators.

Ecology

Building Opportunities for Action

Our employees in Porriño (ES) contribute time to demonstrate our concern for corporate social responsibility in many ways. One successful project in place is run by our site’s donations team. Employees from different departments donated reusable and recyclable goods, such as crystal bottles or test tubes, equipment like weighting scales or PH-meters, reagents and gels, and used office materials that are perfectly usable for educational purposes.

Arts and Culture

Bringing Classical Music Closer to Kids and Teens

In September 2015 Lonza initiated a new sponsoring partnership with the [Basel Chamber Orchestra](#) to support its newest project called “Classroom Piece,” which was produced in cooperation with a theater pedagogue and four musicians from the Basel Chamber Orchestra with the goal of giving kids and teens the necessary impetus to develop their musical personality, independent of social and cultural backgrounds.

For 2017 a new makeover is planned to apply the concept to hospitals, retirement homes and other public and private institutions. Lonza is proud to be actively supporting the development of this novel project over the next several years with the goal of bringing classical music closer to the community.

Investing in Responsible Sourcing

Serving as a Business Partner to Create Sustained Value

In 2016 Lonza continued to address our sourcing needs and markets strategically. Our dedicated Global Strategic Sourcing function connects internal demand from more than 40 major R&D and manufacturing sites worldwide with the external global marketplace. Leveraging opportunities once again delivered significant cost savings while reacting creatively to supply constraints and pricing pressures. Thereby, we supported Lonza's competitive market positions, as well as our top-line growth and bottom-line profitability.

Our sourcing teams work in close partnership with the businesses to purchase a diverse range of strategic raw materials and indirect products and services, with an annual spend in excess of CHF 1 billion. In our Specialty Ingredients businesses, our sourcing teams help to respond to consumers' and customers' desires for natural, organic and certified ingredients. We also ensure that Specialty Ingredients' suppliers meet the requirements of food, cosmetic and biocide regulations across the globe.

In our Pharma&Biotech segment, we ensure that the raw materials purchased for medicines and biotech products adhere to stringent cGMP quality standards and regulatory requirements. In addition, suppliers to Lonza must adhere to the requirements defined in our Supplier Code of Conduct. This code defines standards of business ethics as well as labor, health and safety practices that all suppliers must meet. We routinely conduct audits of suppliers to ensure they continue to meet Lonza's standards and are also engaged in responsible sourcing organizations.

Global Reach and Responsibility

Reflecting the global nature of our businesses, our suppliers are spread across the United States, European Union, China and Switzerland; and we do our utmost to capitalize on this global reach by looking for opportunities to consolidate global purchases across our value chains. We proactively manage relationships with the more than 400 suppliers worldwide who provide us with raw materials and other supplies.

Raw-Material Markets

Volatile and ever-changing supply conditions need our special attention at all times. Enhanced analytics and reporting of key raw-material price variances, as well as future price projections, all help us to make timely choices. Standardized risk analysis processes allow us to identify high-risk materials in a transparent way and take adequate mitigation actions. Despite the trend of a continued industry consolidation in Europe, we managed to expand our supply base for critical supplies. While commodity markets again allowed for beneficial buying conditions, global indicators have started to revert and trend upwards again.

Looking to the future, the Global Strategic Sourcing function in Lonza plans to continue focusing on value-added activities, searching for opportunities for closer cooperation and savings – wherever they might arise – and taking further steps towards best-in-class processes.

Investing in Environment, Health and Safety

Strengthening the Present to Secure the Future

At Lonza we are committed to providing the highest-quality products and services that delight our customers while also minimizing our impact on the environment, conserving energy and natural resources, and helping to improve the quality of life. As part of our broad corporate social responsibility efforts, the key elements of our approach to sustainability are the following:

- Empowering our employees within a culture of innovation
- Extracting the highest efficiency from our raw materials, including energy
- Measuring and reporting our environmental impact
- Collaborating with industry associations and other stakeholders to improve continuously

Protecting Our Stakeholders

“Vision Zero” – the ethical principle that underscores all our efforts in the realm of the environment, health and safety (EHS) – sets the ultimate goals of achieving zero injuries, zero manufacturing process incidents, zero distribution incidents and zero environmental incidents. It is at the heart of our EHS policy, wherein Lonza commits to operations and practices that prevent harm to people and damage to the environment or property. Our principles for environment, health, safety and security set forth in the policy and resulting from the company's ethical conviction take precedence and apply throughout Lonza.

Whereas the EHS policy defines the high-level principles, our corporate EHS management system consisting of 22 detailed guidelines leverages their implementation. Six of our corporate guidelines are considered critical, and they get enhanced selective attention during our site audits. They include such activities as working from heights; protecting workers against unexpected fall risks; working in confined spaces; and preventing any exposure of employees to harmful, toxic or asphyxiating atmospheres while working in egress-restricted environments.

As part of the corporate EHS group, the new, centralized process safety department, whose expertise helps keep our processes safe, has accomplished significant progress in 2016 by the roll-out and refinement of the internal rules and standards for process safety, which all manufacturing sites are obliged to adhere to.

The EHS group also oversees our company-wide sustainability efforts because the continuous improvement tools and disciplines that drive improved safety and environmental quality can also be applied to making sustainable use of natural resources, reducing our carbon footprint, minimizing hazardous waste and otherwise improving the quality of life for our stakeholders.

EHS risk assessments serve as valuable tools in our business and operating practices and in our planning processes. We review new ventures, capital investments in production equipment and systems and other major projects not only for the business opportunities they present, but also for their environmental, health and safety impact.

EHS Performance

The year 2016 did not see any material incidents or breakdowns of manufacturing operations, nor were there any severe accidents or damage inflicted on the environment in connection with the transportation of Lonza products and raw materials. In the unfortunate case that hazardous Lonza products would be involved in a transportation incident or a manufacturing plant experienced a significant breakdown with associated threats to stakeholders, Lonza maintains a proven and tested hazard communication and crisis management system to keep harmful effects to a minimum.

Considering the record safety performance we achieved in 2014, we knew it would be a challenge in the following years to stay put with our safety goal – a 0.6 frequency rate of lost-time injuries and illnesses (LTIFR) in year 2020. The 1.42 LTIFR that we recorded in 2016 proved just how challenging it is to achieve a near-zero safety record.

To gear us back on track, we will continue to build on and strengthen our safety culture, which has a long and successful history in Lonza. Safety at work is a core responsibility of each and every leader and employee; and the culture to live up to “Vision Zero” is a central element in Lonza’s leadership, project management and team cooperation.

We are confident that we can meet our medium-term safety goal through new training initiatives and other new and refined programs and processes. For example, we continue to reinforce the learning effects by reviewing every safety incident – including challenging assumptions about causes and remedies. We continue to widely share the results of safety incident reviews to foster awareness and to apply insights gained to identical or similar challenges elsewhere. And we continue to strengthen our capacity and expertise in process safety management and implementation in order to further minimize the risks inherent to the chemical processes running in our installations.

The ultimate goal of our safety performance and the objective of the safety culture remain to ensure that at the end of a working day, every employee returns home safely and unharmed to their families and friends. “Vision Zero” will be our guide.

In the chart below, the following intensities relate to production of finished goods by weight. We are not surprised about the increase in the values as they are the result of growth in the pharma production.

Intensities¹ of selected parameters

		2016	Change from 2015
Energy consumption	GJ/t	17.9	13%
Industrial water	m ³ /t	12.5	6%
CO ₂ e (scope-1) ²	kg/t	810	21%
Air impurities ³	kg/t	1.33	12.2%
Hazardous waste	kg/t	147	-17%

¹ Consumption of a resource or emission of a pollutant in relation to the production of one metric ton of finished goods

² Carbon dioxide equivalents

³ Air impurities comprise VOC, nitrogen oxides (NOx), sulphur dioxide (SO₂) and particulate matter

Chemicals Management

Lonza's product formulation skills, wide product regulatory assurance and global regulatory expertise provide us distinct competitive advantages in a world of increasingly strict chemical management regulations.

One challenging program is the European Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) initiative. To ensure continuing compliance and business, Lonza is in the process of registering all covered substances imported, manufactured and marketed in the European Union. New substances are registered before reaching the 1 ton per year (tpa) threshold. Pre-registered phase-in substances (mainly existing substances listed in the European Inventory of Existing Chemical Commercial Substances or EINECS) are registered in a tiered process based on volume and substance properties.

To date, Lonza has successfully registered all first-tier and second-tier chemicals. Registrations of third-tier chemicals (>1 tpa) are ongoing and are scheduled to be completed before the 31 May 2018 deadline.

The REACH regulation sets a number of new and challenging requirements with respect to the use of chemical substances. Manufacturers or importers have to demonstrate the safe use of a substance for all of its identified uses. The uses are communicated and accessible to businesses and the general public.

At Lonza a team of more than 60 regulatory experts at locations in Europe, the Americas and Asia Pacific serve and support Lonza businesses globally to ensure compliance with existing regulatory requirements and to stay abreast of future requirements. Their expertise is also a great value to customers who incorporate our regulated ingredients in their end-use applications.

EHS Commitment

Lonza commits considerable resources to EHS activities. At the end of the reporting year, a total of 168 people (full-time equivalents), 1.7% of our employees, worked in the core EHS field, a percentage that has been fairly stable over the years. EHS operating costs amounted to CHF 58.5 million in 2016, 17% up on the previous year. Capital expenditure on EHS was CHF 38.6 million, equivalent to 0.9% of sales and 11% of the Group's total investment in fixed assets.

About 70% of the EHS capital expenditure in 2016 was absorbed by the large chemical and pharmaceutical manufacturing complex at Visp and the related infrastructure. Examples are the extension of the limestone capacity for wastewater neutralization to ensure continued and efficient operation of the wastewater treatment plant, the replacement of parts of the steam turbine and its control equipment and the installation of technical overfill prevention systems in the fine chemicals tank farm area.

Three significant EHS-related investments at other sites in 2016 included the revamping and upgrading of the Verviers (BE) warehouse to state-of-the-art safety and protective standards, installation of new railcar and tank truck access platforms at the Rochester, NY (USA) plant, which represent a quantum leap in added safe working conditions; and last but not least, the replacement of the Freon refrigeration system at Braine (BE), a site that was successfully divested at the end of the reporting year.

Corporate Responsibility

Providing transparent evidence of corporate sustainability practices is part of our commitment to excellence. Most of this information is shared on our corporate website, and in addition we disclose climate data and activity assessments in the framework of the Carbon Disclosure Project for the benefit of our financial stakeholders and as an active participant in the UN Global Compact foundation. We also participate in and respond to a variety of customer and supplier targeted sustainability assessments and surveys.

As a company that makes pharmaceuticals, personal-care products, nutritional ingredients, drinking water sanitizers and hygiene disinfectants, we are sensitive to concerns about the use of animals to test the safety of these products for human use or consumption. Whenever possible, we do our utmost to promote the use of alternatives to animal tests; but in many cases, we are required by law and regulations to conduct such tests. Such required testing is conducted by external, state-of-the-art laboratories that Lonza approves and audits.

Lonza is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care because we apply high standards for the humane care and use of laboratory animals. The company is also recognized by the U.S. National Institutes of Health Office of Laboratory Animal Welfare and complies with the Public Health Service Policy on Humane Care and Use of Laboratory Animals.

Our U.S. facilities are third-party certified under the Society of Chemical Manufacturers and Affiliates (SOCMA) ChemStewards™ initiative. Lonza Ltd in Switzerland is a Responsible Care® company, and our facility in Nansha (CN) is certified under both ISO 14001 and OHSAS 18001. All of our facilities adhere to the Lonza EHS management system, which is based on the ChemStewards™ program and addresses all aspects of environment, health, safety and security.

Industrial Heritage at the Swiss Manufacturing Site

In 2016 Lonza's large site in Visp (CH) made progress as planned to address mercury contamination in an old wastewater discharge canal ("Grossgrundkanal"), on surrounding soil near the canal and in certain other areas where canal sediments were deposited as fill many decades ago. This industrial legacy traces back to when Lonza used large amounts of mercury as a catalyst in chemical processes, and the site discharged industrial wastewater with mercury-containing effluent into the canal between 1930 and the mid-1970s.

Various parties were involved in the maintenance of the publicly owned canal by dredging and excavating sediments from the waterway. At times when neither the awareness nor the environmental legislation was on today's level, parts of the removed material were used as fill material on various land properties. Only during the 1970s did the communities and the people become aware of the full problem in connection with mercury. In 1976 Lonza commissioned our wastewater treatment plant, where mercury-containing effluent has subsequently been treated.

Since 2013 Lonza has worked closely with the communities in pre-financing all required technical investigations in residential areas and agricultural zones between Visp and Niedergesteln. In 2016 two contaminated areas were selected as a pilot remediation project and successfully demonstrated the effectiveness of the chosen and approved approach.

We are now preparing for the remediation activities in all inhabited areas within the concerned perimeter, which are planned to begin in the summer of 2017. The procedure is challenging as no remediation activity is allowed to start without written consent of the competent cantonal and communal authorities and all concerned land owners.

Neither historically nor in the recent past have adverse health effects to humans or animals been linked to the mercury contamination found in the investigated region. To obtain a scientific evaluation on possible health effects, an epidemiological study by experts of the University of Zurich was conducted through 2015; their study confirmed that no evidence for adverse health effects exists.

Lonza, the Canton of Valais, the municipalities and other parties involved are continuing their efforts to solve the mercury issue. Besides remediation pre-financing, Lonza also continues the voluntary pre-financing of any required additional technical investigation, without prejudice, because we recognize the need for a quick and efficient rehabilitation, in particular in the residential areas.

Goals

The 2016-2020 medium-term sustainability goals, which were endorsed by Lonza's executive management in 2015, became effective with the beginning of the reporting year 2016.

These medium-term goals include a 40% reduction of the 2015 safety target of the former cycle and a 10% reduction of environmental and resource rates achieved by the end of 2015. The decision to apply relative goals (rates) was made on the basis of the challenges related to the business portfolio and the asset portfolio that lie ahead.

These goals include direct (scope-1) and indirect (scope-2) greenhouse gas emissions (GHG), other established lead parameters for air emissions, as well as the resource parameters of energy and water consumption.

After a comprehensive data review early in 2017, Lonza restated the 2015 status and the thereof-derived environment and resource-related medium-term goals 2020.

Medium-Term Goals for 2020

Safety ¹

		Goal 2020	Achieved 2016	Status 2015
LTIFR ² (frequency)	LTI/mn hrs	0.6	1.42	1.44

Environment ¹

		Goal 2020 restated	Achieved 2016	Status 2015 restated
CO ₂ e (scope 1+2) ³	t/mn CHF	166	183	185
Air impurities ⁴	kg/mn CHF	173	187	192

Resources ¹

		Goal 2020 restated	Achieved 2016	Status 2015 restated
Energy (total)	GJ/mn CHF	2300	2500	2550
Industrial water	m ³ /mn CHF	1720	1750	1910

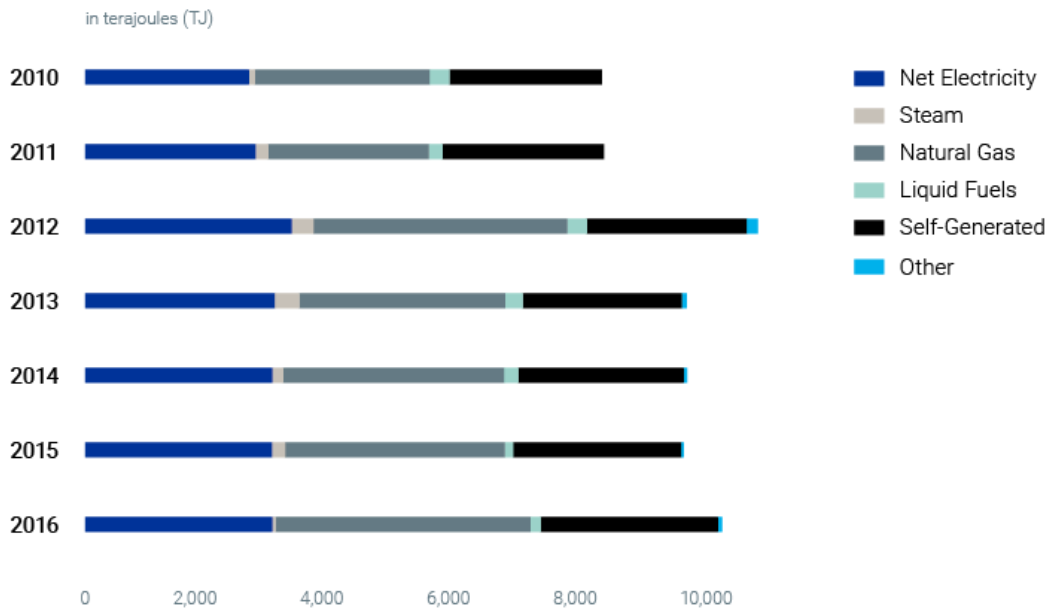
¹ Includes all active production and R&D sites, as well as headquarters in the referenced years

² Lost-time injury frequency rate: number of accidents per 1 million hours worked

³ Carbon dioxide equivalents

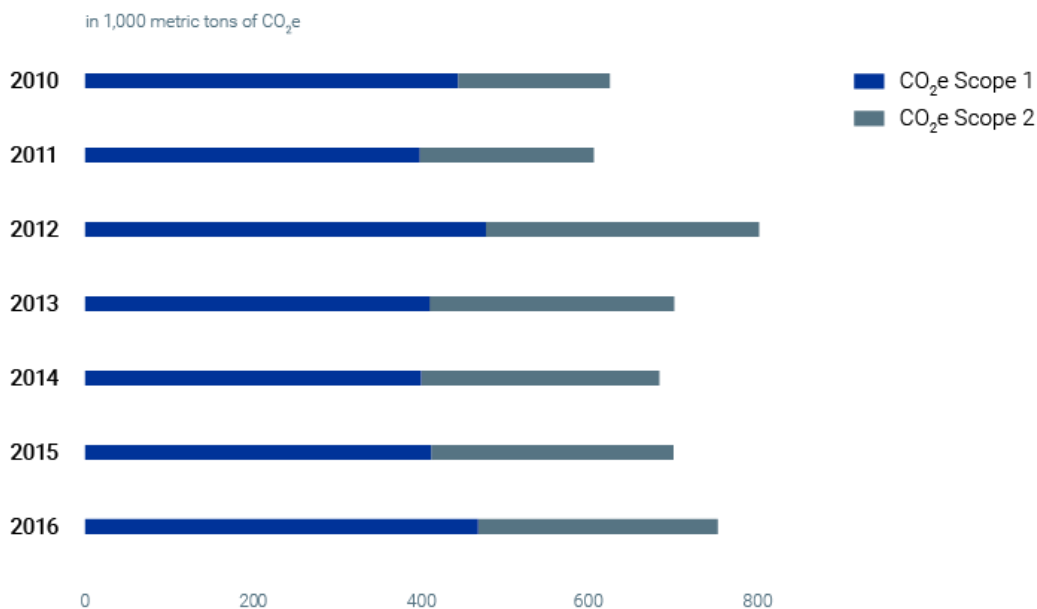
⁴ Air impurities comprise VOC, nitrogen oxides (NOx), sulphur dioxide (SO₂) and particulate matter

Energy



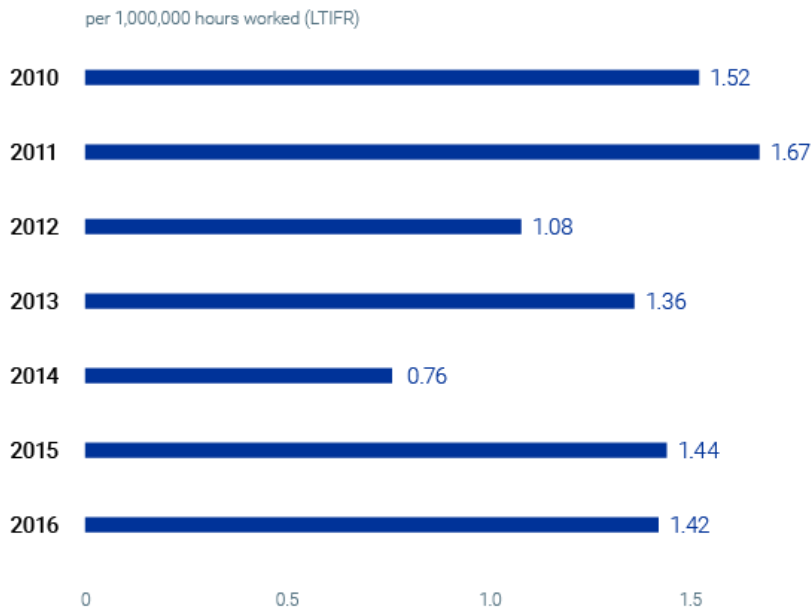
The total energy requirement in 2016 was 10,300 Terajoules (TJ) (2,860 GWh), 6.4% up on the previous year, due to increased demand of the markets in a favorable economic environment. A significant increase in overall sales in 2016 resulted in a 2% year-over-year decrease in energy demand related to sales. The main energy sources used by Lonza in 2016 were natural gas (40%), electricity (29%) and self-generated energy, mainly by incineration of waste (28%). Liquid, mainly fossil-based fuels, accounted for 2% of the overall energy consumption.

Greenhouse Gas Emissions



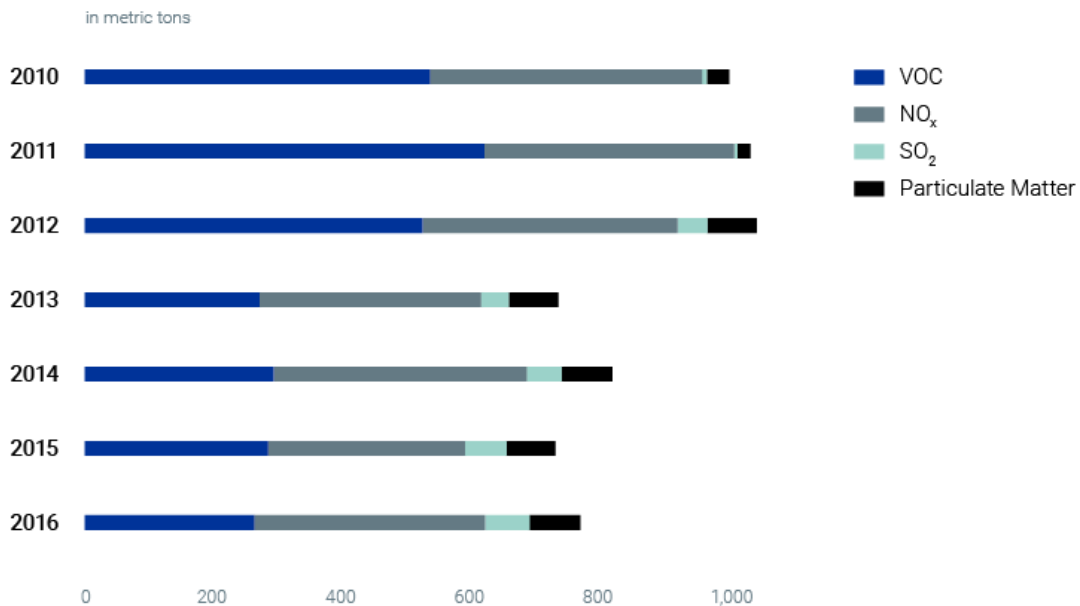
Total output of greenhouse gas (GHG) emissions in 2016 was 755,000 metric tons of carbon dioxide equivalents (CO₂e), 7.4% up on the previous year (some adjustments became required since the last annual report publication). Direct emissions (scope-1) amounted to 469,000 metric tons, while indirect emissions (scope-2) were at 286,000 metric tons. More than half of all scope-1 CO₂e (57%) emitted is generated by the thermal treatment of waste materials or by chemical reactions during normal production processes; stationary fuel use accounted for 46%. Indirect scope-2 emissions are calculated by regional specific standard emission factors from the consumption of purchased electricity or steam in the respective grid regions. They were slightly lower compared to 2015 (-1.1%).

Occupational Accidents



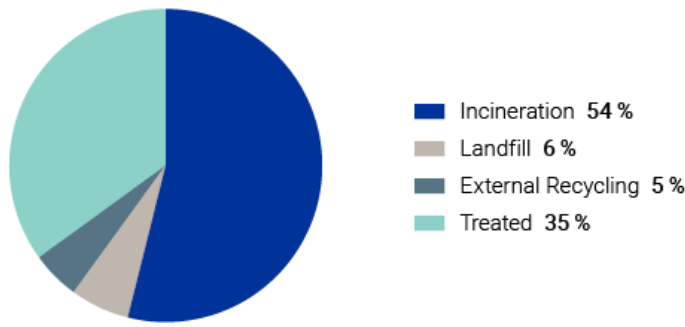
Our safety performance in 2016 was only slightly better than in the previous year. We are not yet where we want to be and will further intensify the global co-operation across all operations of all segments to engrave “Vision Zero” in our safety culture. With an engaged and motivated workforce and a dedicated leadership team, we want to achieve our 2020 goal of a lost time injury rate of 0.6 or below.

Air Impurities



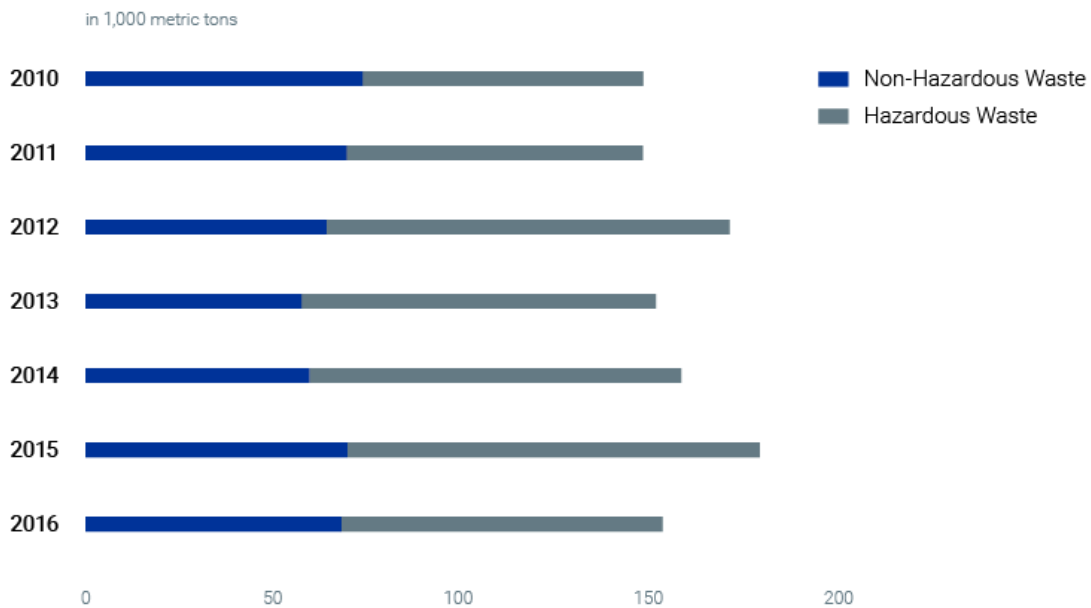
Air impurities, totaling 770 metric tons in 2016, were 5% up on the previous year. A recalculation for the time series was required due to a site emissions review, which eventually led to lower values of volatile organic compounds (VOC) and a higher particulate matter contribution. VOC and nitrogen oxides (NO_x) were responsible for 80% of all air impurities. Technical improvements at emission points have been realized in recent years and contributed to the reductions. VOC emissions are mainly the result of solvent use in product manufacturing, cleaning and maintenance processes. Halogenated VOC made up 16% of total VOC. Whereas the use of these organic compounds is driven by product mix, Lonza tries to minimize their consumption where possible.

Final Treatment of Special Waste



In the reporting year, 94% of hazardous waste materials were incinerated, externally recycled or treated to render them non-hazardous; and 6% went to secured landfills. All companies involved in the transportation, processing and final disposal of wastes are known to Lonza. In all countries hazardous waste is handled by institutionalized manifest systems. Waste treatment is a matter of trust; the selection of the vendors is based on quality and EHS criteria, as well as on economic factors. As a matter of principle, we work only with reputable firms that comply with all legal requirements.

Waste Categories



The total quantity of waste generated by Lonza in 2016 was 153,000 metric tons, of which 85,000 metric tons consisted of special (hazardous) wastes and 68,000 metric tons of non-hazardous wastes or inert materials. Variations of hazardous waste over time are a typical outcome of our customer-driven, highly complex manufacturing portfolio. At all our sites, Lonza has a specialized waste-disposal concept dedicated to the principles of avoidance, reduction, recycling or recovery and lastly environmentally sound disposal. The categorization into special (hazardous) waste and non-hazardous waste at all sites follows local applicable legislation.

Segments

Pharma&Biotech

Mammalian Manufacturing
Chemical and Microbial Manufacturing
Clinical Development and Licensing
Emerging Technologies
Bioscience Solutions

Specialty Ingredients

Consumer Care
Agro Ingredients
Coatings and Composites
Water Treatment



Pharma&Biotech Overview

Lonza's Pharma&Biotech vision is to enable our customers to meet some of the greatest challenges in patient treatment. The Pharma&Biotech market-focused segment is comprised of the following businesses:

- Mammalian Manufacturing
- Chemical and Microbial Manufacturing
- Clinical Development and Licensing
- Emerging Technologies
- Bioscience Solutions

Pharma&Biotech Overview 2016

Our Pharma&Biotech segment delivered remarkable sales growth of 15.9% (15.8% in constant exchange rates), reaching CHF 1.85 billion, which led to an exceptional CORE EBIT of CHF 400 million and an extremely high 40.8% CORE EBIT growth year-over-year.

This outstanding performance was driven by commercial excellence and strong operational execution. The strong momentum in Mammalian Manufacturing was complemented by a significant upward trend in all other technologies and modalities. Furthermore, our continued cost and manufacturing discipline helped the segment achieve these remarkable results. Our strong regulatory track record continued with 154 successful regulatory and customer audits.

During 2016 Lonza's Pharma&Biotech segment announced several long-term, strategic manufacturing agreements, such as with Kodiak Sciences, bluebird bio and Clovis Oncology.

In the year ahead, Lonza's Pharma&Biotech will focus on strengthening our core offering to deliver further operational and commercial excellence.

Pharma&Biotech Financial Summary

million CHF	2016	Change in %	2015
Sales	1,849	15.9	1,596
CORE EBIT ¹	400	40.8	284
CORE EBIT margin in %	21.6		17.8
CORE EBITDA ¹	531	27.0	418
CORE EBIT margin in %	28.7		26.2

¹ **CORE Definition:** Lonza believes that disclosing CORE results of the Group's performance enhances the financial markets' understanding of our company because the CORE results enable better comparison across years. Therefore, the CORE results exclude exceptional items, such as restructuring charges, acquisition-related costs, environmental-remediation costs, impairments and amortization of acquisition-related intangible assets, which can differ significantly from year to year. For this same reason, Lonza uses these CORE results in addition to IFRS as important factors in internally assessing the Group's performance.

Mammalian Manufacturing



Lonza's Mammalian Manufacturing business continues to be a market leader in the contract manufacture of biologics. Our offering includes the manufacture of commercial bulk drug substance of monoclonal antibodies (mAbs) and recombinant proteins from mammalian cell cultures. As a result, our current portfolio includes products that represent essential active pharmaceutical ingredients for life-saving medicines.

Our current commercial manufacturing network offers drug substance manufacturing scales from 2,000L to 20,000L across three state-of-the-art GMP manufacturing sites: Portsmouth, NH (USA), Porriño

(ES) and Tuas, Singapore (SG). With our extensive footprint, Lonza's Mammalian Manufacturing offers a global solution to our customers' outsourcing needs.

At Lonza we are prepared to meet the needs of the market and our clients to provide top-tier technical know-how and solutions for drug development programs. The Mammalian Manufacturing team continues to see strong demand in large-scale commercial capacity. That is why we are now offering large-scale customer-dedicated manufacturing facilities in Switzerland and the United States, such as our large-scale expansion for Alexion at our Portsmouth facility.

Furthermore, to meet the market demand for mid-scale manufacturing capacity, we are adding single-use bioreactors in Singapore for the commercialization of late-phase products. The facility has been designed with the capability to expand throughput flexibly in the event of increased market demand. With Lonza's wide breadth of offerings in terms of capacity and technology, we will be able to provide the right solution for many programs.

Our regulatory expertise and proven commercial manufacturing track record have allowed us to gain broad accreditation from the various global health authorities including the FDA and EMA. In 2016 we manufactured several commercial large-molecule medicines.

As part of our customer-focus and market-driven strategy, we continue to provide flexible business models to enable customized solutions to satisfy the unique needs of our clients. The success of our strategy can be seen in the fact that Lonza continues to be a market leader – and partner of choice – for the manufacture of biologics for commercial use.

Mammalian Manufacturing Overview 2016

Our Mammalian Manufacturing business experienced strong performance in 2016. Lonza continued to benefit from a balanced customer portfolio coming from large pharmaceutical companies to small- and mid-sized biotech companies. The outsourcing and dual-sourcing trends by the industry maintained a positive momentum.

Our customer base broadened further with new long-term contracts. In addition, better-than-anticipated market uptake of our clients' therapeutics resulted in extended contract volumes. Subsequently, the order-book visibility improved once more.

As announced at the Capital Markets Day in October 2016, Lonza has expanded capacity using single-use disposable technology at our Singapore (SG) site.

For further information about our mammalian cell culture capabilities for large-molecule drug substance, as well as for descriptions of Lonza's mammalian cell culture facilities including Portsmouth, Porriño and Singapore, please visit our [Mammalian Manufacturing website](#) or explore Lonza's worldwide sites by location via our [360° Virtual Tours](#).

Chemical and Microbial Manufacturing



Lonza's Chemical and Microbial Manufacturing (CMM) business offers contract manufacturing services for three technologies: small molecules, peptides and microbials. The peptides business was sold in January 2017. Now CMM operates from nine plants in two locations, Visp (CH) and Nansha (CN), with a customer base that is a healthy mixture of large, mid-size and emerging pharmaceutical companies.

Lonza has one of the widest breadths of expertise in the production of highly potent active pharmaceutical ingredients (HPAPIs) within the contract manufacturing organization (CMO) industry. This expertise spans highly skilled teams, state-of-the-art

facilities and experience of more than 15 years in successfully commercializing HPAPI products. For the production of other active pharmaceutical ingredients (APIs), Lonza's breadth and economy of scale, our many years of experience in launch and long-term manufacture, and the dedication of our personnel ensure that Lonza remains a leader in small-molecule contract manufacturing.

CMM supports the launch of three New Chemical Entities (NCEs) on average every year, and the small molecules team is heavily involved in U.S. Food and Drug Administration- (FDA-) designated breakthrough therapies, with a significant number of these products being produced at Lonza. These products are notable for the speed they need to reach the market, and Lonza receives excellent customer feedback on how these products are managed throughout the accelerated process.

CMM's microbial assets underwent significant expansion in 2016. We expanded our offering at the 15,000L scale, not only in terms of capacity but also capability, such as specialized expertise for the handling of insoluble proteins. At the smaller scale, we also expanded capability in downstream manufacturing in the 1,000L scale asset.

In addition, CMM has a strong track record in supporting our customers with new and innovative business models. One example of note is a small-molecule HPAPI plant in Visp that supports launch of an NCE. The dedicated plant used for the API steps is supported by supply of an intermediate produced in our multipurpose plant, which gives both cost-of-goods and response-time advantages while giving our customer complete security of supply. CMM continues to develop such models in all technologies as we are well positioned to support such dedicated plants in our large and heavily back-integrated sites.

Chemical and Microbial Manufacturing Overview 2016

Our Chemical and Microbial Manufacturing business made considerable progress in 2016, further developing new business models and securing long-term commitments.

In October the strategic long-term manufacturing agreement with Clovis Oncology to secure supply of rucaparib was signed. The dedicated small-molecule manufacturing line to be constructed in Visp (CH) will be operational in 2019. This dedicated train guarantees access to manufacturing capacity for Clovis and allows coverage of the full range of anticipated demand scenarios for commercial supply.

As a result of the continuous review of Lonza's business portfolio, it was decided in December to sell the peptide business and with it the Braine (BE) facility to PolyPeptides, a large, focused competitor in this field. The peptides chemical business was a niche business for Lonza with only limited synergies with our other small-molecule technologies.

For further information about Chemical and Microbial Manufacturing service offerings in Small Molecules, Peptides and Microbial, including our expertise in HPAPI, specialized technologies such as GMP Phosgenation & Carbonylation, MicroReactor Technology, HPAPI, Solid Phase Peptide Synthesis, Microbial Fermentation, Handling of Insoluble Proteins and Innovative Business Models, click on our [Chemical Manufacturing website](#) or our [Microbial Manufacturing website](#).

Clinical Development and Licensing



Our Clinical Development and Licensing (CDL) business focuses on the early phase of drug development, from late discovery through early clinical trial supply. We offer a broad portfolio of drug substance and drug product development services and clinical supply manufacturing across three modalities – mammalian, microbial and chemistry – and support both large- and small-molecule development.

For our customers in late discovery phase, our Applied Protein Services offering includes technologies and programs designed to mitigate risks, reduce attrition and improve the quality and safety of therapeutic proteins. These technologies include our Epibase®

Immunogenicity screening services, our Sentinel APART™ Platform for antibody aggregation prediction and re-engineering and our Manufacturability Assessment Service for prediction of manufacturing performance.

When a lead candidate is selected, our industry-leading expression technologies, including the GS Gene Expression System™ and XS™ Microbial Expression Technologies, are used to create commercially relevant cell lines or strains for protein expression. These technologies can be out-licensed for use by our customers in their own facilities or used by us in a service mode.

Following creation of a new cell line or strain, we engage in a program of process development and scale-up work that creates a process suitable for transfer to a cGMP manufacturing facility. These process development activities support both small and large molecules. Once a process has been established, CDL can manufacture not only products to support pre-clinical activities, but also early clinical trial material.

We have a global footprint of manufacturing facilities, including Slough and Cambridge (UK), Basel (CH) and Tuas, Singapore (SG) for our mammalian projects, Visp (CH) for microbial projects, and Nansha (CN) and Visp for our small-molecule programs.

The newest addition to our capabilities is our Drug Product Services offering. These services focus on parenteral dosage forms and include options for monoclonal antibodies, other biologics and small molecules that require a parenteral dosage form. Our offering includes formulation development and drug product analytical development and quality control, along with specialized services. Together with our existing development and drug substance manufacturing capabilities, this offering enables us to provide one-stop-shop service solutions for our customers.

In CDL we strive to work with our customers to reliably deliver integrated, innovative and value-adding gene-to-patient or target-to-patient custom solutions. We work in partnership with our customers to enable them to progress their candidates rapidly and effectively through clinical development in order to deliver medical treatments successfully to patients.

Clinical Development & Licensing Overview 2016

In our Clinical Development & Licensing (CDL) business, we continued on our growth path in 2016. Several new products that use our GS Gene Expression System™ technology were approved, which brought the year's total number of approved therapeutics to 31, representing 32% of all FDA-approved biologics in 2016.

Our reach into the early-phase small-molecule market continued to grow because of the healthy market for small biotech companies that are developing NCEs, as well as our broad capabilities in this area.

Lonza's containment capabilities for handling Highly Potent Active Pharmaceutical Ingredients (HPAPIs) provide us an excellent market position as they allow us to handle the most-potent drugs currently being developed.

In October Lonza started operation of our new Drug Product Services laboratories in Basel (CH). Capabilities will focus on parenteral dosage forms for biologics, drug conjugates, peptides and small molecules for products for injection or infusion.

For further information about Epibase®, Sentinel APART™, GS Gene Expression System and XS™ Microbial Expression Technologies, as well as our development and manufacturing capabilities for small and large molecule drug substance and drug products, please visit the [Custom Development and Manufacturing website](#).

Emerging Technologies



Our service offerings include process development and manufacturing for cell therapy, viral therapy and antibody drug conjugates. These therapies are seen as the next frontier in medicine.

Lonza Cell Therapy, with decades of experience in cell processing, is an industry leader in process development and manufacturing of cells under current good manufacturing practices (cGMP) for both allogeneic and autologous cell-based therapies. With our broad range of service offerings, combined with our global footprint, we support our clients through the clinical phase to commercial launch.

At our Houston, TX (USA) facility, Lonza Viral Therapy offers services for viral gene and cell therapies through a wide selection of product types, such as adenoviral vectors, adeno-associated virus (AAV) vectors and lentiviral vectors. In addition to producing viral vector gene therapies, Houston also performs good manufacturing practice (GMP) processing of virally modified autologous cell therapies. Our full-service offering spans vector design and development, process development and cGMP manufacturing through to product-release testing.

Lonza's Bioconjugates team has a decade of experience and quality track record in process development and GMP manufacturing of clinical and commercial bioconjugates, including antibody drug conjugates (ADCs). This experience encompasses several bioconjugate constructs and novel payload, linker and conjugation technologies. We have extensive expertise in managing the intricacies of supply chain and safety of these complex products.

Emerging Technologies Overview 2016

Emerging Technologies reported growth in all businesses in 2016 based on strong demand from well-funded biotech and big pharma customers.

The main 2016 highlights for this business included the start of the construction of a new viral therapy facility near Houston, TX (USA). This new facility, which is planned to come online towards the end of 2017, is expected to develop and manufacture both viral gene therapies and virally modified cell therapies.

A further focal point was the announcement of a long-term agreement with bluebird bio, Inc., for dedicated production suites for clinical and commercial supply of viral vectors and virally modified cell therapy products.

For additional information about our services, such as process development, cGMP manufacturing, assay development, analytical and all other related services, click on our websites below:

- [Cell Therapy website](#)
- [Viral Therapy website](#)
- [Bioconjugates website](#)

Bioscience Solutions



Lonza's Bioscience Solutions offerings include cell-culture, transfection and molecular biology tools for life-science research. We serve customers across the world in academic and government institutions, as well as in major biotech and pharmaceutical organizations.

Our Bioscience Solutions team sets the industry standard for product quality and customer support in life-science research with our Clonetics™ and Poietics™ primary cells and stem cells; Nucleofector™ Transfection technology; and electrophoresis devices and reagents.

For the drug-discovery and translational research markets, we offer products and services targeting cardiovascular, respiratory, neurological, metabolic, cancer and other disease-research areas.

Our Therapeutic Cell Culture Media business serves customers in the pharmaceutical and biotech industry. Therapeutic cell culture media is used in the production of therapeutics like antibodies, antibody drug conjugates (ADCs), vaccines and other biologics.

Lonza's Testing Solutions' endotoxin-detection assays are applied in pharmaceutical product release testing to help assure the safety of injectable drugs, implantable medical devices and dialysis samples. Our fully integrated software solutions streamline Quality Control processes and offer insight into manufacturing operations, with quick access to management, compliance and trending data.

In 2016 Lonza acquired Triangle Research Labs (TRL), a fast-growing hepatocyte company based in North Carolina (USA), which manufactures and sells hepatic products for in vitro evaluation of metabolism, drug-drug interactions, drug transporter activity, toxicity of drug candidates and other applications. With the TRL acquisition, Bioscience Solutions has added high-quality fresh and cryo-preserved, human and animal hepatocytes for medical and biomedical research in pre-clinical ADME-Tox applications. The addition of TRL and its products further strengthens Bioscience Solutions' position as a worldwide leader in cell discovery by integrating this business into our primary-cell portfolio and creating the basis for new product offerings and the entry into additional strategic markets.

Bioscience Solutions Overview 2016

Market demand for research products, testing solutions, MODA™ and bio-therapeutic media product portfolios continued to be favorable; and they delivered strong growth in 2016 compared with 2015.

The 2016 acquisition of Triangle Research Labs (TRL), a hepatocyte provider based in North Carolina (USA), further strengthened Lonza's position as a worldwide leader in cell discovery.

For further information about Bioscience Solutions products, such as Endotoxin-Detection Assays, PowerCHO Advance™ Media, Hepatocytes, RAFT™ 3D Cell-Culture System, CytoSMART™ System, Cells On Demand™ Services, 4D-Nucleofector™ LV (large volume) Device, MODA™ Paperless QC Micro Solution and PyroGene™ rFC Assay, click on our [Bioscience Solutions website](#).

Specialty Ingredients Segment

In the Specialty Ingredients segment, we supply innovative solutions that promote health, wellness, beauty, nutrition, hygiene and materials protection. We have four pillars in our Specialty Ingredients segment: Consumer Care, Agro Ingredients, Coatings and Composites and Water Treatment.

Consumer Care

Lonza's Consumer Care business is a global leader in several important chemical ingredient categories that provide health, wellness, beauty and protection claims for our fast-moving consumer goods customers. These ubiquitous materials include actives for antidandruff shampoos, cosmetic ingredients, vitamin B3 compounds (niacin and niacinamide), L-Carnitine and microbial-control solutions, such as disinfectants and sanitizers that help protect us from dangerous and unwanted microbes.

[Consumer Care](#)

Agro Ingredients

Capitalizing on our broad experience in custom manufacturing in our Pharma&Biotech and Specialty Ingredients segments, Lonza's Agro Ingredients business offers – in addition to active ingredients for mollusk control – custom agricultural manufacturing services designed to improve crop yields and food quality. Additional offerings include preservatives and additives for crop-protection formulations, as well as animal feed additives.

[Agro Ingredients](#)

Coatings and Composites

Formerly known as Industrial Solutions and Wood Protection, Lonza's renamed Coatings and Composites business has a vast product portfolio that offers quality chemical technologies backed by technical and regulatory expertise to meet our customers' current and future needs. We are a trusted and innovative supplier of technologies and services used in a wide range of industrial applications, such as coatings for different materials like wood or marine anti-fouling, as well as composite materials for electronics and aerospace.

[Coatings and Composites](#)

Water Treatment

Our Water Treatment business within Specialty Ingredients is one of the world's largest suppliers of sanitizers and other treatment chemicals for pools, spas and water parks. We are also rapidly growing sales in the treatment of surface waters, as well as water for drinking, agriculture, irrigation, food processing and industrial applications. For these applications we offer oxidizing and non-oxidizing biocides, proprietary halogen stabilizers and innovative solutions that include proprietary feeder systems and controllers.

[Water Treatment](#)

Specialty Ingredients Overview 2016

The Specialty Ingredients segment posted sustained strong performance again in 2016 with a sales increase of 3.8% (3.1% in constant exchange rates) to CHF 2.25 billion during 2016. CORE EBIT grew by 8.1% year-over-year to CHF 322 million with further improved margins.

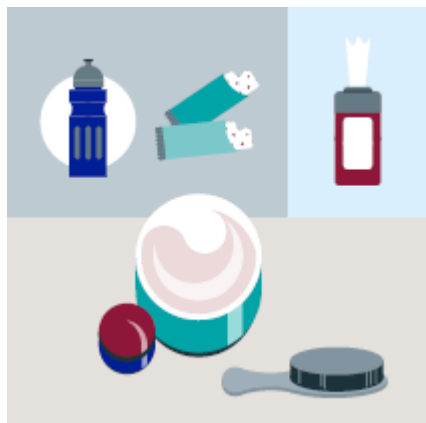
This good progress was driven by the strong results in the Wood Protection, Consumer Care and Water Treatment businesses, as well as by improved product mix and portfolio optimization. The expected slowdown in Agro Ingredients caused by the lower agro market dynamics had some impact on the overall growth for Specialty Ingredients. Lonza will continue to conduct operational and value-chain improvements to further enhance profitability.

In September 2016 Lonza took a further major step along the strategic path as a high-value supplier to the healthcare continuum by acquiring InterHealth Nutraceuticals. With this targeted acquisition, Lonza is expanding our nutritional portfolio and extending our offerings towards strongly growing consumer needs and nutritional trends.

million CHF	2016	Change in %	2015
Sales	2,250	3.8	2,167
CORE EBIT ¹	322	8.1	298
CORE EBIT margin in %	14.3		13.8
CORE EBITDA ¹	415	6.4	390
CORE EBIT margin in %	18.4		18.0

¹ **CORE Definition:** Lonza believes that disclosing CORE results of the Group's performance enhances the financial markets' understanding of our company because the CORE results enable better comparison across years. Therefore, the CORE results exclude exceptional items, such as restructuring charges, acquisition-related costs, environmental-remediation costs, impairments and amortization of acquisition-related intangible assets, which can differ significantly from year to year. For this same reason, Lonza uses these CORE results in addition to IFRS as important factors in internally assessing the Group's performance.

Consumer Care



Consumer Care within Lonza's Specialty Ingredients segment is focused on becoming the leading partner for the fast-moving consumer goods industry by supporting health, wellness and beauty through science and technology. Lonza's Consumer Care business includes hygiene products, nutrition and dietary supplement ingredients, as well as personal-care offerings.

Together the teams in Consumer Care are capitalizing on people's desire for nutritious food, for protection from dangerous viruses and other pathogens, and for the ability to look and feel their best. While we help to protect the health and well-being of people and

companion animals around the world, we also offer innovative hair- and skin-care formulations and ingredients for the personal-care market and are the global leaders in zinc pyrithione, quaternary ammonium actives and L-Carnitine.

Lonza's science-based actives leverage our biotechnology and fine chemistry know-how. With operational excellence, we then apply that know-how to develop concepts for convenient and differentiated performance in predominately regulated markets.

Our market-oriented, collaborative approach to delivering the ingredients our customers need is further strengthened by Lonza's regulatory expertise. This advantage means that our customers have the regulatory support to obtain approvals required by local governmental agencies and the products backed by science in order to make marketable claims that help deliver meaningful differentiation.

We enable our customers to improve the lives of their consumers by ensuring healthier environments, delivering more nutritional foodstuffs, and offering more-advanced hair-, scalp- and skin-care products through the following businesses:

Hygiene

Lonza's Hygiene team offers products to disinfect and sanitize industrial cleanrooms, schools, food processing plants, restaurants, grocery stores, hospitals, health clinics, homes and more. We are a global leader for registered biocides, preservatives and anti-microbial formulations for use in disinfectants and sanitizers; and we serve both the home-care and the institutional-cleaning markets.

Our extensive portfolio of products includes global solutions registered by the U.S. Environmental Protection Agency (EPA), the Canadian Therapeutic Products Directorate (TPD), the relevant authorities of many EU Member States, the Ministries of Health in China and in Japan, as well as other regulatory agencies around the world.

Nutrition

For the nutrition market, Lonza's Nutrition business supplies branded health ingredients that are supported by scientific research, regulatory compliance and marketing expertise. Clear benefits and a broad array of product applications make our products attractive for the dietary supplement, food and beverage, nutrition and pharmaceutical industries. This offering was further extended with the acquisition of InterHealth in September 2016.

For more than 40 years, Lonza has been one of the world's leading supplier of vitamin B3 compounds (niacin and niacinamide), an essential vitamin normally supplied to the body through diet or direct supplementation. Another product is our ResistAid[®] ingredient, a natural immune-support ingredient formulated to contribute to immune health year round.

Over the last three decades, our Carnipure® brand has become synonymous with high quality and innovation. Still today we continue to pioneer new benefits of L-Carnitine, a nutrient essential for energy metabolism, in various health applications via extensive clinical research.

Personal Care

In the personal-care market, Lonza is an established supplier of traditional and non-traditional preservation and protection systems, custom-developed fermentation, biotechnological and botanical actives, proteins and specialty emollients and emulsifiers. With our portfolio of innovative hair-, scalp- and skin-care technologies, our Personal Care team is creating a broader and more strategic orientation toward markets and customers versus the more traditional, product-centric approach.

We also remain the world's largest supplier of antidandruff actives with our Zinc Omadine® product portfolio. Lonza Consumer Care has strong capabilities in bio-products that play an important role in the development of advanced personal care products and applications.

Applying the expertise of our global manufacturing and R&D sites, which include three Global Centers of Excellence, Lonza is poised to meet the beauty and preservation needs of our customers and their consumers.

Consumer Care Overview 2016

Consumer Care continued our good growth trajectory in Hygiene in 2016 with modern preservative systems and disinfecting solutions. Compared with 2015 Nutrition had accelerated growth momentum even before the InterHealth acquisition.

InterHealth, acquired in September 2016, offers more than 15 branded ingredients, including the cornerstone UC-II® ingredient, which is revolutionizing the joint-health market segment. The company complements Lonza's existing nutritional portfolio in the area of sports nutrition, weight management, immune health and pet health. This acquisition also expands Lonza's offerings into new areas, such as cognitive and diabetic health.

In our human Nutrition business, we experienced strong performance driven by L-Carnitine, vitamin B3 compounds and food emulsifiers. With the acquisition of InterHealth, we will be able to significantly expand our market offering and growth potential in this business.

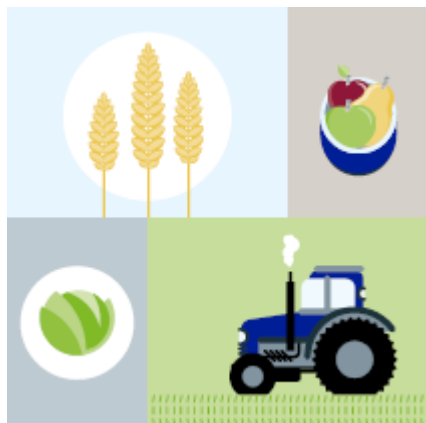
Our success in the Hygiene business was driven by the continuous replacement of Triclosan in handwash additives as a standard chemistry of choice with our new, more innovative solutions. We further increased our sales activities with multi-national accounts and with key regional players in these fields of application.

In the Personal Care business, we continued to strengthen our footprint and offerings in emerging markets.

For further information about our businesses, please click on our [Consumer Care website](#) or one of the following websites:

- [Hygiene](#)
- [Preservation](#)
- [Nutrition](#)
- [Personal Care](#)

Agro Ingredients



Lonza's Agro Ingredients business is growing by helping our customers do more with less – meaning optimizing the use of increasingly scarce natural resources such as arable land and clean irrigation water.

Our aim within the value-added chain of the agricultural sector is to make every effort to reduce agricultural product losses and boost productivity. These targets would be impossible to achieve without the use of modern and highly efficient agro-chemistry. Meeting these requirements will take major investments in the research and development of essential, efficient and sustainable solutions. It will

require innovation – and cutting-edge technology companies like Lonza are making an important contribution in this regard.

Lonza's offerings to the agricultural market are based on a strong chemical and biological technology background. With broad experience, high professionalism and unrelenting passion to satisfy our customers, Lonza provides state-of-the-art custom manufacturing for modern herbicides, insecticides and fungicides, including biologically derived products, such as biopesticides, biostimulants and other microbial active ingredients and intermediates. Additional offers include preservatives and additives for crop protection formulations.

Besides our chemical custom manufacturing services, we also provide small- and large-scale fermentation capacity for fermentation-derived biopesticides, used by leading agro companies. Our services also include providing full life-cycle management for our customers' products.

Lonza is the one of the world market leaders in molluscicides as we offer the Meta[®] metaldehyde active ingredient and Meta[®]-based, formulated products. For example, we serve the professional and home & garden market with our Axcela[®] fully formulated end-use molluscicide.

In all main markets, we collaborate with strategic partners and leading local distribution companies to support the growth of our premium-quality products. For instance, our finished commercial Frexus[®] products are sold in Brazil – one of the largest agricultural markets in the world – as fertilizers and as disinfectants for fruits and vegetables (post-harvest treatments).

Additionally, we offer fertilizers and sanitizing agents for the agricultural industry. The many options we provide make Lonza Agro Ingredients a unique partner, specifically for the crop-protection industry.

Lonza Agro Ingredients also supports the production-animal industry by providing branded high-quality ingredients with clear benefits that are reinforced by our distributors and agents around the world. Examples include vitamin B3 compounds (niacin and niacinamide), Carniking[®] and LaraFeed[®] products.

Agro Ingredients Overview 2016

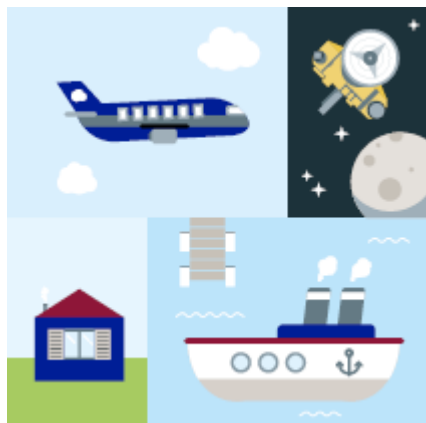
In our Agro Ingredients business, we experienced a solid start into the year; but after April 2016 a softer demand in the agro and feed markets, as expected, had an impact on the full-year results. This development was based on an over-stocking situation in the end markets, as well as on reduced investments by the agrochemical industry and ultimately by the farming industry, which saw little incentive to invest in a depressed market.

By focusing on selected specialty applications and products, we have been able to continue to grow our niche portfolio. Lonza's adjuvants, formulation ingredients and preservatives for crop protection and crop hygiene products are gaining increasing interest from the agro industry.

Meta[®], Lonza's specific molluscicide for slug and snail control, continued to experience solid growth, driven by the geographic expansion of the active substance and the formulated products into new markets.

For further information about Agro Ingredients' custom manufacturing, intermediates, molluscicides, formulation ingredients, crop protection and animal-care businesses, please visit our [Agro Ingredients website](#).

Coatings and Composites



The strategic business unit Coatings and Composites globally offers a wide array of specialty solutions for the protection, enhanced performance and modification of the end-use characteristics of various materials, including carbon, fibers, fabrics, leather, metals, plastics, stone and wood.

Our specialty products are used to produce coatings that are applied superficially or by penetrating processes. They protect the materials from biological (e.g. insects, decay, mold and mildew, algae) and physical-chemical degradation (e.g. fire, moisture). Our specialty biocide and non-biocide products are applied in paints, inks, sealants, adhesives, backing materials

for bath mats and carpeting, shower curtains, wallboards, flooring and ceiling materials and many more applications.

We also deliver specialty solutions for the in-process or end-of-process application for various composites (e.g. wood-plastic composites, laminated veneer lumber, etc.). Our composite thermoset resin systems are used in modern consumer electronics to ensure the best performance, as well as in the production of light-weight reliable structural and interior elements for passenger aircraft.

In our Coatings and Composites businesses, we constantly strive to develop environmentally sustainable and innovative technologies in response to our customers' demands and the increasing challenges presented by the global regulatory landscape. We relentlessly work on developing products and services that protect renewable resources such as wood, leather and natural fibers and that meet new, more stringent environmental regulations.

Materials Performance and Protection

Our Materials Performance and Protection business unit is the leading innovative partner for our customers in the materials protection and high-tech composites markets. We offer a wide range of biocides and formulated products and a unique selection of thermoset resins and systems.

Our biocide products help to control mold and mildew in building materials, such as paints, wallboard and emulsions and also improve performance of plastics, textiles and inks. By preventing fouling on ocean-going ships, we help to conserve fuel and reduce emissions and maintenance costs.

The major growth and innovation areas of this business unit are in paints and coatings, plastics and inks, anti-fouling paints and metal-working fluids, as well as in high-tech composites for electronics and aerospace applications. With technical service labs in all regions of the world, we can support our customers with testing services and application know-how. Our Innovation Centers in Europe, North America, South America and Asia are continuously developing new products and solutions that address our customers' needs.

Performance Ingredients

Lonza's customers use our performance ingredients to reduce their environmental impact when producing vitamins, pharmaceuticals and crop-protection products through efficient high-yield processes. In addition, we offer an innovative portfolio of performance chemicals to the oil-and-gas industry to protect assets from corrosion and increase efficiency and safety of production. Other significant application areas include lubricants and enhancers in the production of precision automotive parts, plastics, inks, pigments, optical brighteners, coin production and flexible circuit boards for electronic devices.

Our hydrazine products find many applications, including water treatment, pharmaceuticals, lubricants and other industrial uses. And for more than six decades, we have supplied the U.S. Government propellant-grade hydrazine for use on satellites, space probes, aircraft and launch vehicles.

The Performance Ingredients team focuses on continuous optimization of the product portfolio, on excellence in asset management and on continuous improvement in the value chains to increase profitability. Products developed from this portfolio are also used in other Specialty Ingredients business units to enhance product performance.

Wood Protection

For more than 80 years, the Wood Protection business has pioneered and developed market-focused technologies that preserve, protect and enhance wood. Our business provides trusted and innovative products, application systems and support services that work well for our customers.

Lonza's Wood Protection business has become a leading name in worldwide wood protection, with operations throughout Asia Pacific, Africa, Europe, North America and South America. Our products protect wood from termites and decay, make wood fire resistant, improve its visual appearance and prevent mold growth.

Lonza's flagship brands of industrial wood preservatives and fire retardants – Wolman[®], Tanalith[®] and Dricon[®] – head a family of products that enhance the performance of wood. From reliable backyard decking and landscape products to heavy-duty utility poles and marine docks and piling, our Wood Protection chemicals enable a sustainable natural resource to last longer than it otherwise could. Additional specialty lines of water repellents, mold inhibitors, colorants and sapstain-control solutions further enhance the appearance and performance of wood.

The integration of Zelam and of Diacon, both acquired in 2015, into Lonza's business units has been successfully completed. Their acquired technologies are now being developed for launch in the relevant markets worldwide.

Coatings and Composites Overview 2016

In our Coatings and Composites business, we experienced solid market demand across most offerings in 2016 but mainly in the Wood Protection business. Value-chain improvement programs and favorable exchange rates helped to successfully sustain our growth path despite an increasingly competitive environment in some markets.

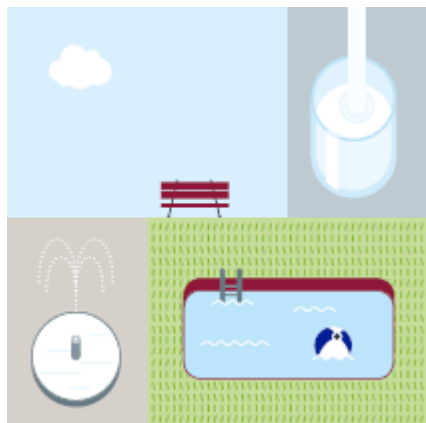
Our Wood Protection business delivered greatly improved results in 2016, well ahead of last year. North America led the way with growth in solid wood preservation markets, fueled by the strong U.S. and Canadian economies with increased demand for housing and rising home-improvement expenditures. Most of the growth was driven by increased demand in the U.S. residential sector, along with significant contributions from new accounts.

The Performance Ingredients team observed growth across all relevant markets with the exception of China, where the continuing strong competitive environment in some of our markets slowed expansion. Sales in the oil-and-gas industry will remain under pressure as the industry continues to focus on cost reductions, a factor that is also expected to have an impact on the business in 2017.

In the Materials Performance and Protection business, Building Products experienced positive growth driven by Asia, where we have seen our market share grow following our intense technical support efforts. Sales development in composite materials was good as several key customer projects were fully realized for interior systems and composite resin products within the electronics industry, particularly in Asia.

For further information about our Performance Ingredients, Composite Materials, Functional Chemicals, Materials Protection, Oil and Gas, Marine Anti-Fouling, Hydrazine and Wood Protection businesses, please visit our [Coatings and Composites website](#).

Water Treatment



Water treatment is a major growth market for Lonza with our strong market-leadership positions around the world. With a long heritage and more than a century of experience in developing innovative water-treatment solutions, Lonza's Water Treatment business is one of the leading suppliers of treatment chemicals, sanitizer feeder systems and services to the global water treatment market. From drinking-water supplies and industrial applications to backyard swimming pools, our products aim to keep water clean.

Our Water Treatment product applications include residential and commercial swimming pool and spa water applications, as well as drinking water, process

water, wastewater, irrigation, surface water and industrial water applications. We build customer relationships by offering technical customer support, R&D, formulation expertise, regulatory excellence and powerful brand marketing, as well as product reliability and quality.

Lonza manufactures and markets both oxidizing and non-oxidizing biocides, along with specialized chemicals and accessories under a number of premium brands. Keys to continued success in these businesses are to grow customer intimacy, to launch compelling consumer marketing, to develop innovative and differentiated products, and to maintain efficient manufacturing and distribution operations.

Our Water Treatment business is categorized by customer need into two parts: Residential, which encompasses Pro Dealer and Mass Channels, and Industrial, Commercial, Municipal and Surface Water (ICMS), which offers chemicals and services.

Residential Water

Within the Residential Water group, our Mass Channel benefits from the strength, consumer trust and long-standing heritage of our flagship HTH[®] brand. We continue to focus on improving the consumer experience, both at the shelf and in the pool, while delivering high-quality and innovative products; so we are recognized as a trusted supplier for our key customers.

Our Pro Dealer channel offers strong brands backed by differentiated products and customer-targeted programs. This approach enables us to serve multiple outlets within a market. Customer relationships play a vital role in this channel. The Lonza Pro Dealer channel is anchored by our cornerstone brands: poolife[®], Baquacil[®] and HTH[®] brands.

Industrial, Commercial, Municipal and Surface Water (ICMS)

Our ICMS business includes a broad portfolio of chemicals, formulations and innovative solutions to answer customer needs for water sanitization and treatment. As highly specialized service providers, we offer a wide range of branded products to the market and provide on-site support for end-use customers.

We provide products and automated feeder systems to commercial pools including theme parks, hotels, public pools and camp parks. In addition to municipal drinking water and wastewater-treatment facilities, we offer industrial applications for processes used in the pulp and paper, food and beverage, power, chemical and steel industries.

Our calcium hypochlorite sanitization solutions, which are delivered via proprietary feed technologies, are present on all continents. Offering market-specific products that fulfill complex needs has allowed Lonza's ICMS business to expand into niche markets and to showcase the unique features and benefits of our portfolio of products and services.

Water Treatment Overview 2016

The Residential Water Treatment business had an improved performance in 2016 compared with 2015, due to the good performance in North America and prolonged favorable weather. Solid results were also seen in Europe, South Africa and South America, despite the economic climate.

In the area of Industrial, Commercial, Municipal and Surface (ICMS) water, we continued to make progress in South America. The goal of decreasing the weather dependency of the Water Treatment business portfolio by strengthening and enlarging the ICMS portfolio is progressing further.

For further information about our businesses, click on our [Water Treatment website](#) or the following websites:

- [Residential Water](#)
- [Non-Residential Water \(ICMS\)](#)
- [Water Treatment Products Worldwide](#)

Financial Report

Consolidated Balance Sheet
Consolidated Income Statement
Consolidated Statement of Comprehensive Income
Consolidated Cash Flow Statement
Consolidated Statement of Changes in Equity
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Financial Statements of Lonza Group Ltd, Basel
Supplementary Financial Information



Consolidated Balance Sheet AUDITED ✓

Assets¹

million CHF	Note ²	2016	2015 ³
Non-current assets			
Property, plant and equipment	6	2,412	2,366
Intangible assets	5	968	833
Goodwill	5	1,287	1,118
Other non-current assets		26	19
Deferred tax assets	21	38	47
Investments in associates / joint ventures	7	18	13
Other investments		13	7
Non-current loans and advances	14	1	1
Total non-current assets		4,763	4,404
Current assets			
Inventories	8	897	893
Trade receivables	10	612	538
Current tax receivables		16	21
Other receivables, prepaid expenses and accrued income	11	174	115
Current advances	14	1	0
Cash and cash equivalents	12, 14	274	277
Assets held for sale	4	91	0
Total current assets		2,065	1,844
Total assets		6,828	6,248

¹ At 31 December

² See the accompanying notes to the consolidated financial statements

³ Restated to reflect final purchase accounting for Zelum Ltd (reclassification of CHF 3 million from goodwill to intangible assets)

Total Equity and Liabilities¹

million CHF	Note ²	2016	2015
Equity			
Share capital	25	53	53
Share premium		311	311
Treasury shares	25	(10)	(51)
Retained earnings and reserves		2,001	1,822
Total equity attributable to equity holders of the parent		2,355	2,135
Total equity		2,355	2,135
Liabilities			
Deferred tax liabilities	21	329	255
Non-current provisions	13	90	68
Employee benefit liability	23	717	738
Other non-current liabilities		134	62
Non-current debt	14	1,571	1414
Total non-current liabilities		2,841	2537
Current provisions	13	49	33
Other current liabilities	15	882	638
Current tax payables		88	89
Trade payables	16	284	292
Current debt	14	289	524
Liabilities held for sale	4	40	0
Total current liabilities		1,632	1,576
Total liabilities		4,473	4,113
Total equity and liabilities		6,828	6,248

¹ At 31 December

² See the accompanying notes to the consolidated financial statements

Consolidated Income Statement ¹ **AUDITED ✓**

million CHF	Note ²	2016	2015
Sales	2	4,132	3,803
Cost of goods sold		(2,731)	(2,704)
Gross profit		1,401	1,099
Marketing and distribution		(281)	(239)
Research and development	22	(84)	(103)
Administration and general overheads		(478)	(313)
Other operating income	19	32	55
Other operating expenses	19	(104)	(71)
Result from operating activities (EBIT) ³		486	428
Financial income	20.1	2	4
Financial expenses	20.2	(114)	(89)
Net financing costs		(112)	(85)
Share of loss of associates / joint ventures	7	(1)	(2)
Profit before income taxes		373	341
Income taxes	21	(72)	(64)
Profit for the period		301	277
Attributable to:			
Equity holders of the parent		301	277
Non-controlling interest		0	0
Profit for the period		301	277
		CHF	CHF
Basic earnings per share	26	5.73	5.30
Diluted earnings per share	26	5.69	5.26

¹ For the year ended 31 December

² See the accompanying notes to the consolidated financial statements

³ Result from operating activities (EBIT) excludes interest income and expenses as well as financial income and expenses that are not interest related (see note 20) and Lonza's share of profit/loss from associates and joint ventures.

Consolidated Statement of Comprehensive Income ¹ AUDITED ✓

million CHF	Note ²	2016	2015
Profit for the period		301	277
Other comprehensive income			
Items that will not be reclassified to profit or loss:			
Re-measurements of net defined benefit liability	23	(37)	(58)
Income tax on items that will not be reclassified to profit or loss	21.2	10 (27)	8 (50)
Items that are or may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations		4	(113)
Cash flow hedges – effective portion of changes in fair value		(2)	10
Cash flow hedges – reclassified to profit or loss		1	(3)
Income tax on items that are or may be reclassified to profit or loss	21.2	(2) 1	(1) (107)
Other comprehensive income for the period, net of tax		(26)	(157)
Total comprehensive income for the period		275	120
Total comprehensive income attributable to:			
Equity holders of the parent		275	120
Non-controlling interest		0	0
Total comprehensive income for the period		275	120

¹ For the year ended 31 December

² See the accompanying notes to the consolidated financial statements

Consolidated Cash Flow Statement ¹ **AUDITED** ✓

million CHF	Note ²	2016	2015
Profit for the period		301	277
Adjustments for non-cash items:			
– Income taxes	21	72	64
– Net financing costs	20	112	85
– Share of loss of associates / joint ventures	7	1	2
– Depreciation of property, plant and equipment (excl. impairment)	6	249	249
– Amortization of intangibles	5	58	51
– Reversal of impairment	3, 6	(2)	(1)
– Impairment losses on property, plant, equipment and intangibles	3, 5, 6	57	53
– Increase in provisions	13	56	37
– Increase / (decrease) in employee benefit liability		7	(44)
– Loss on disposal of property, plant and equipment		9	6
– Amortization of other liabilities / assets		6	(2)
– Share-based payments	24	28	17
Income taxes paid		(54)	(61)
Interest paid		(63)	(60)
Total before change in net working capital		837	673
Increase in inventories		(19)	(15)
(Increase) / decrease in trade receivables		(60)	68
Increase / (decrease) in trade payables		(15)	36
Decrease in other net working capital		172	50
Use of provisions	13	(21)	(21)
Decrease in other payables, net		(142)	(50)
Net cash provided by operating activities		752	741
Purchase of property, plant and equipment	6	(355)	(256)
Purchase of intangible assets	5	(11)	(8)
Proceeds from sale of tangible and intangible assets		2	2
Acquisition of subsidiaries, net of cash acquired	4	(230)	(30)
Disposal of subsidiaries, net of cash disposed of		0	4
Purchase of unconsolidated investments		(11)	0
Proceeds from sale of other assets		2	0
Interest received		2	1
Dividends received		0	5
Net cash used for investing activities		(601)	(282)
Repayment of straight bond	14	(400)	(240)
Repayment of German private placement	14	0	(155)
Issue of straight bond	14	249	324
Issue of syndicated loan	14	100	0
Repayment of syndicated loan	14	0	(125)
Repayment of borrowings	14	(82)	(83)
Increase in other non-current liabilities		66	30
Decrease in other non-current liabilities		(1)	(1)
Dividends paid	26	(131)	(131)
Sale of treasury shares		48	0
Net cash used for financing activities		(151)	(381)
Effect of currency translation on cash		1	(10)
Net increase in cash and cash equivalents		1	68
Cash and cash equivalents at 1 January		277	209
Cash and cash equivalents at 31 December		278	277
Cash and cash equivalents classified as held for sale	4.3	(4)	0
Cash and cash equivalents at 31 December (as reported)		274	277

¹ For the year ended 31 December

² See the accompanying notes to the Consolidated Financial Statements

Consolidated Statement of Changes in Equity

AUDITED ✓

million CHF	Note ¹	Attributable to equity holders of the parent						Total equity	
		Share capital	Share premium	Retained earnings	Hedging reserve	Translation reserve	Treasury shares		Total
At 31 December 2014		53	311	2,301	(9)	(449)	(77)	2,130	2,130
Profit for the period		0	0	277	0	0	0	277	277
– Remeasurement of defined benefit liability		0	0	(50)	0	0	0	(50)	(50)
– Exchange differences on translating foreign operations		0	0	0	0	(113)	0	(113)	(113)
– Cash flow hedges		0	0	0	6	0	0	6	6
Other comprehensive income, net of tax		0	0	(50)	6	(113)	0	(157)	(157)
Total comprehensive income for the period		0	0	227	6	(113)	0	120	120
Dividends	26	0	0	(131)	0	0	0	(131)	(131)
Recognition of share-based payments	24	0	0	15	0	0	0	15	15
Movements in treasury shares		0	0	(25)	0	0	26	1	1
At 31 December 2015		53	311	2,387	(3)	(562)	(51)	2,135	2,135
Profit for the period		0	0	301	0	0	0	301	301
– Remeasurement of defined benefit liability		0	0	(27)	0	0	0	(27)	(27)
– Exchange differences on translating foreign operations		0	0	0	0	3	0	3	3
– Cash flow hedges		0	0	0	(2)	0	0	(2)	(2)
Other comprehensive income, net of tax		0	0	(27)	(2)	3	0	(26)	(26)
Total comprehensive income for the period		0	0	274	(2)	3	0	275	275
Dividends	26	0	0	(131)	0	0	0	(131)	(131)
Recognition of share-based payments	24	0	0	26	0	0	0	26	26
Movements in treasury shares		0	0	9	0	0	41	50	50
At 31 December 2016		53	311	2,565	(5)	(559)	(10)	2,355	2,355

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 AUDITED ✓

Note 1 – Accounting Principles

Note 2 – Operating Segments

Note 3 – Restructuring

Note 4 – Business Combinations & Sale of Businesses

Note 5 – Intangible Assets and Goodwill

Note 6 – Property, Plant and Equipment

Note 7 – Investments in Associates and Joint Ventures

Note 8 – Inventories

Note 9 – Development Contracts

Note 10 – Trade Receivables

Note 11 – Other Receivables, Prepaid Expenses and Accrued Income

Note 12 – Cash and Cash Equivalents

Note 13 – Provisions

Note 14 – Net Debt

Note 15 – Other Current Liabilities

Note 16 – Trade Payables

Note 17 – Material and Energy Costs

Note 18 – Personnel Expenses

Note 19 – Other Operating Income and Expenses

Note 20 – Financial Results

Note 21 – Taxes

Note 22 – Research and Development Costs

Note 23 – Employee Benefit Liabilities

Note 24 – Share-Based Payments

Note 25 – Changes in Shares and Share Capital Movements

Note 26 – Earnings Per Share

Note 27 – Related Parties

Note 28 – Financial Risk Management

Note 29 – Share Ownership of the members of the Board of Directors and the Executive Committee

Note 30 – Enterprise Risk Management

Note 31 – Events after Balance Sheet Date

Note 32 – Principal Subsidiaries and Joint Ventures

Note 1 – Accounting Principles AUDITED ✓

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 specialty ingredients markets. It harnesses science and technology to create products that support safer and healthier living and that enhance the overall quality of life. Not only is Lonza a custom manufacturer and developer, the company also offers services and products ranging from active pharmaceutical ingredients to drinking water sanitizers, from nutritional and personal care ingredients to agricultural products, and from industrial preservatives to microbial control solutions that combat dangerous viruses, bacteria and other pathogens.

Basis of Preparation

The consolidated financial statements for 2016 and 2015 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 the International Financial Reporting Standards (IFRS) and with Swiss law. They are prepared on the historical cost basis, except that derivative financial instruments and contingent considerations are stated at their fair values. The employee benefit liability is stated at the fair value of plan assets less the present value of the defined-benefit obligation.

Changes in Accounting Standards

There were no new standards or amendments to existing standards that had a significant impact on the Group’s consolidated financial statements. The following new and revised standards have been issued, but are not yet effective. They have not been applied early in these consolidated financial statements. Their impact on the consolidated financial statements of Lonza has not yet been comprehensively analyzed. The expected effects as disclosed below reflect a first assessment by Group management.

Standard / Interpretation	Effective date	Planned application by Lonza
Amendments to IAS7 – Disclosure Initiative	* 1 January 2017	Reporting year 2017
Amendments to IAS 12 – Recognition of Deferred Tax Assets for Unrealized Losses	* 1 January 2017	Reporting year 2017
Annual Improvements to IFRS Standards 2014–2016 Cycle	* 1 January 2018	1 January 2017 / 1 January 2018
IFRS 15 – Revenue from Contracts with Customers	** 1 January 2018	Reporting year 2018
IFRS 9 – Financial Instruments	** 1 January 2018	Reporting year 2018
Amendments to IFRS2 – Classification and Measurement of Share-based Payment Transactions	* 1 January 2018	Reporting year 2018
IFRIC 22 – Foreign Currency Transactions and Advance Consideration	* 1 January 2018	Reporting year 2018
IFRS 16 – Leases	** 1 January 2019	Reporting year 2019
Amendments to IFRS 10 and IAS 28 – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	* To be determined	To be determined

* No or no significant impact is expected on the consolidated financial statements

** The Group is currently assessing the impacts of adopting these standards

IFRS 15 Revenue from Contracts with Customers amends revenue recognition requirements and establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. Revenue is 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. Based on the Group's assessment the adoption of the new standard will primarily impact its long-term contracts of the custom manufacturing business and will result in recognition of contract assets for costs incurred during the pre-manufacturing phase as well as additional deferred income related to payments from customers before supply of goods. The Group has not yet finally quantified this impact.

IFRS 16 Leases substantially changes the financial statements as the majority of leases will become on-balance sheet liabilities with corresponding right of use assets on the balance sheet. The current operating lease commitments of CHF 95 million as of 31 December 2016 (see [note 6](#)) provide, subject to the provision of the standard, an indicator of the impact of the implementation of IFRS 16 on the Group's consolidated balance sheet.

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 32](#).

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 interest. 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 7](#). 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 information is 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](#). Selected segment balance sheet information and performance measures are also routinely provided to the EC.

The Group has two segments, Pharma&Biotech and Specialty Ingredients. Revenues are primarily generated from the sale of products. The Pharma&Biotech segment also derives revenues from the sale or licensing of products or technology to third parties. 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 taxes), legal, environmental and safety services. Transfer prices between operating segments are set on an arm's-length basis. Operating assets and liabilities consist of property, plant and equipment, goodwill and intangible assets, trade receivables / payables, inventories and other assets and liabilities, such as provisions, which can be reasonably attributed to the reported operating segments. Non-operating assets and liabilities mainly include current and deferred income tax balances, post-employment benefit assets / liabilities and financial assets / liabilities such as cash, investments and debt.

Revenue Recognition

Sales are recognized when the significant risks and rewards of ownership of the assets have been transferred to a third party and are reported net of sales taxes and rebates. Rebates to customers are recognized in the same period that the related sales are recorded. Revenue from termination fees is recorded in the income statement in the period in which the termination occurs. The percentage of completion (POC) method is applied for development projects and defined long-term contracts in the Pharma&Biotech segment that have the economic substance of a construction contract. The stage of completion of a contract is determined on the basis of the estimated total contract costs. Revenue from the sale of rights is recognized upon transfer of rights or on an accrual basis, depending on whether the transaction in substance is a sale or a licensing arrangement. Interest income is recognized on a time-proportion basis using the effective interest method. Dividend income is recognized when the right to receive payment is established.

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.

Derivative Financial Instruments and Hedging

Derivative financial instruments are initially recognized in the balance sheet at their fair value. The method of recognizing the resulting gain or loss is dependent on whether the derivative contract is designed to hedge a specific risk and qualifies for hedge accounting. On the date a derivative contract is entered into, the Group designates derivatives that qualify as hedges for accounting purposes as either a hedge of the fair value of a recognized asset, liability or firm commitment (fair value hedge), a hedge of a forecasted transaction (cash flow hedge) or a hedge of a net investment in a foreign entity. Changes in the fair value of derivatives that are fair value hedges are recognized in the income statement, along with any changes in the fair value of the hedged asset or liability that is attributable to the hedged risk. Changes in the fair value of derivatives in cash flow hedges that are highly effective are recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the income statement. Where the forecasted transaction results in the recognition of an asset or liability, the gains and losses previously included in other comprehensive income are included in the initial measurement of the asset or liability. Otherwise, amounts recorded in other comprehensive income are transferred to the income statement and classified as revenue or expense in the same period in which the forecasted transaction affects the income statement.

Certain derivative instruments, while providing effective economic hedges under the Group's policies, do not qualify for hedge accounting. Changes in the fair value of any derivative instruments that do not qualify for hedge accounting are recognized immediately in the income statement.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in other comprehensive income at that time remains in equity and is recognized in the income statement, when the committed or forecasted transaction is ultimately recognized in the income statement.

However, if a forecasted or committed transaction is no longer expected to occur, the cumulative gain or loss that was recognized in other comprehensive income is immediately transferred to the income statement.

The purpose of hedge accounting is to match the impact of the hedged item and the hedging instrument in the income statement. To qualify for hedge accounting, the hedging relationship must meet several strict conditions with respect to documentation, probability of occurrence, hedge effectiveness and reliability of measurement. At the inception of the transaction, the Group documents the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions.

This process includes linking all derivatives designated as hedges to specific assets and liabilities or to specific firm commitments or forecasted transactions. The Group also documents its assessment, both at the hedge inception and on an ongoing basis, as to whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The fair value of derivatives (forward exchange contract, FX swaps, commodity swaps and interest rate swaps) is estimated by discounting the difference between the contractual forward price and the current forward price for the residual maturity of the contract using a credit-adjusted risk-free rate. Current forward prices are provided by banks or other financial service providers.

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

Financial leases, which effectively constitute assets purchased with long-term financing, are carried as fixed assets at their purchase price and are written off over their estimated useful lives if the leased assets are transferred to the lessee at the end of the lease term. If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life. The corresponding liabilities are included in non-current and current debt. The finance lease gives rise to a depreciation expense for depreciable assets as well as a finance expense for each accounting period. For the purpose of classifying a lease of land and buildings, lease of the land and of the buildings is evaluated separately. Lease payments under an operating lease are recognized as an expense in the income statement on a straight-line basis over the lease term.

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 5 years for software, 5 to 30 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 trademarks acquired in 2011 through the Arch Chemicals business combination and 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

Trade receivables are recognized at the original invoice amount less allowances made for doubtful accounts. An allowance for doubtful accounts is recorded for the difference between the carrying value and the estimated recoverable amount where there is objective evidence that the Group will not be able to collect all amounts due. These estimates are based on specific indicators, such as the aging of customer balances, specific credit circumstances and the Group's historical experience, also taking into account economic conditions. Expenses for doubtful trade receivables are recognized in the consolidated income statement within cost of goods sold. Long-term accounts receivable are discounted to take into account the time value of money, where material.

Financial Assets

Loans and advances and other financial assets are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the Group provides money, goods or services directly to a debtor with no intention of trading the receivable. They are classified as current with maturities not longer than 12 months and as non-current with maturities greater than 12 months after the balance sheet date. Loans and advances are carried at amortized costs using the effective interest method. Realized and unrealized gains and losses are recorded in the income statement in the period in which they arise. 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.

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 costs to sell 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 – 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 costs 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.

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 and Medical 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. Re-measurements 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 liability 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 has 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.

Debt

Debt instruments 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.

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 exercisable. 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.

Research and Development

Research and 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 and 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, gains and losses from currency-related operating derivative instruments, as well as operating exchange rate gains and losses.

Net Financing Costs

Net financing costs comprise 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 arising on financial assets and liabilities, 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.

Significant Accounting Estimates and Judgements

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 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, restructuring 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 2,412 million (2015: CHF 2,366 million), goodwill of CHF 1,287 million (2015: CHF 1,118 million) and intangible assets of CHF 968 million (2015: CHF 833 million) (see [note 5](#) and [note 6](#)). The intangible assets include trademarks acquired through business combinations with a carrying value of CHF 387 million (2015: CHF 384 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 for products with capitalized rights could result in shortened useful lives or impairment. The impairment analysis as explained in [note 5](#) is most 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 5.2](#).

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 2016, the present value of the Group's defined-benefit obligation was CHF 3,145 million (2015: CHF 3,066 million). The plan assets at fair value amounted to CHF 2,472 million (2015: CHF 2,372 million), resulting, compared with the present value of the pension obligation, in a funded status deficit of CHF 673 million (2015: CHF 694 million) (see [note 23](#)). 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.

Business Combinations

Where the Group acquires control of another business, the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquired business shall be recognized, separately from goodwill. The process of assessing fair values requires in particular management involvement and judgement in the recognition and measurement of the following items:

- Intellectual property, such as patents, licenses, trademarks, customer relations and similar rights
- Contingencies such as legal and environmental matters
- Contingent consideration arrangements
- The recoverability of any accumulated tax losses previously incurred by the acquired company

In all cases, management makes an assessment based on the underlying economic substance of the items in order to fairly present these items.

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 2016 amounted to CHF 92 million (2015: CHF 73 million), as disclosed in [note 13](#). 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 both of 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 2016, deferred tax assets of CHF 38 million (2015: CHF 47 million), current tax receivables of CHF 16 million (2015: CHF 21 million), deferred tax liabilities of CHF 329 million (2015: CHF 255 million) and current tax payables of CHF 88 million (2015: CHF 89 million) are included in the consolidated balance sheet. Significant estimates are required in determining the current and deferred assets and liabilities for income taxes. Some of these estimates are based on interpretations of existing tax laws or regulations. 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.

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 revenue for sales of goods during 2016 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 during 2016. Moreover, the Group has various contractual agreements which include upfront and milestone payments over a period of several years. Revenue is recognized only when, according to management's judgment, risks and rewards have been transferred to the customer and no future performance obligation exists. For certain transactions, recognition of revenue is based on the performance of the conditions agreed in particular contracts, the verification of which requires evaluation and judgments by management.

Intangible Assets

The Group considers the trademarks acquired in 2011 through the Arch Chemicals business combination and in 2007 through the Cambrex business combination to 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. 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 5](#)).

Note 2 – Operating Segments AUDITED ✓

2.1 General Information

According to the requirements of IFRS 8 “Operating Segments” Lonza identified the following two market-focused segments: Pharma&Biotech and Specialty Ingredients. These segments are described as follows:

Pharma&Biotech

In the **Pharma&Biotech segment**, Lonza is one of the world’s leading suppliers of active pharmaceutical ingredients (APIs) and biopharmaceuticals as well as research and testing products and services. Lonza manufactures products that are at the forefront of powerful new treatments for cancer, diabetes, immune system disorders, heart conditions, Alzheimer’s and Parkinson’s diseases, inflammation and many other medical diseases and conditions. Lonza’s customers cover a wide spectrum: from the world’s largest pharmaceutical and biotechnology companies to medical research and testing organizations, as well as small start-ups pioneering breakthrough medical treatments.

Specialty Ingredients

In the **Specialty Ingredients segment**, Lonza is an innovative supplier of solutions that promote health, wellness, beauty, nutrition, hygiene and materials protection. Lonza’s Consumer Care business is a global leader in several important chemical ingredient categories that provide health, wellness, beauty and protection claims for our fast-moving consumer goods customers. These ubiquitous materials include actives for antidandruff shampoos, cosmetic ingredients, vitamin B3 compounds (niacin and niacinamide), L-Carnitine and microbial control solutions such as disinfectants and sanitizers that help protect us from dangerous and unwanted microbes. Lonza’s Agro Ingredients business offers – in addition to active ingredients for mollusk control – custom agricultural manufacturing services designed to improve crop yields and food quality. Additional offers include preservatives and additives for crop protection formulations, as well as animal feed additives. Coatings and Composites globally offers a wide array of specialty solutions for the protection, enhanced performance and modification of the end-use characteristics of various materials including carbon, fibers, fabrics, leather, metals, plastics, stone and wood. The Water Treatment business is one of the world’s largest suppliers of sanitizers and other treatment chemicals for pools, spas and water parks, surface waters, as well as water for drinking, agriculture, irrigation, food processing and industrial applications.

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 two reportable segments and corporate, which includes the costs of the corporate functions, including eliminations, and adds up to the Group total. Lonza does not allocate financing costs, 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 2016 million CHF	Specialty Ingredients	Pharma& Biotech	Total operating segments	Corporate/ eliminations	Group total
Sales third-party	2,250	1,849	4,099	33	4,132
Intersegment sales ¹	43	23	66	(66)	0
Total sales	2,293	1,872	4,165	(33)	4,132
Result from operating activities (EBIT)	273	325	598	(112)	486
– Percentage return on sales in %	12.1	17.6	14.6	n.a.	11.8
Financial income					2
Financial expenses					(114)
Net financing costs					(112)
Share of loss of associates / joint ventures					(1)
Profit before income taxes					373
Income taxes					(72)
Profit for the period					301
Included in result from operating activities (EBIT):					
Other operating income ²	12	10	22	9	31
Other operating expenses ²	(18)	(24)	(42)	(4)	(46)
Research and development	(49)	(95)	(144)	0	(144)
Depreciation and amortization	(123)	(140)	(263)	(44)	(307)
Impairment, net of reversal of impairment	(5)	(50)	(55)	0	(55)
Restructuring expenses	(9)	(16)	(25)	(2)	(27)
Environmental expenses	0	0	0	(28)	(28)
CORE result from operating activities (EBIT) ⁵	322	400	722	(71)	651
Total assets	4,041	3,638	7,679	(851)	6,828
Total liabilities	618	1,476	2,094	2,379	4,473
Total equity	3,423	2,162	5,585	(3,230)	2,355
Net financial liabilities	(400)	(71)	(471)	3,142	2,671
Net capital invested ³	3,023	2,091	5,114	(88)	5,026
Return on net capital invested (RONOA) ⁴ in %	13.3	17.8	15.4	n.a.	12.7
Included in total assets:					
Total property, plant and equipment	922	1,426	2,348	64	2,412
– Additions to property, plant and equipment	96	232	328	27	355
– Additions to property, plant and equipment from acquisitions	1	0	1	0	1
Total goodwill and intangible assets	1,712	512	2,224	31	2,255
– Additions to intangible assets	0	6	6	5	11
– Additions to goodwill and intangible assets from acquisitions	332	12	344	0	344
Investments in associates / joint ventures	7	3	10	8	18
Headcount	3,495	4,771	8,266	1,864	10,130
Average headcount	3,484	4,680	8,164	1,815	9,979

¹ Intersegment sales were based on prevailing market prices.

² Excluding restructuring- and environment-related income/expenses (CHF 15 million), as well as the Braine-related impairments (CHF 42 million)

³ Net capital invested comprises all operating assets and goodwill less operating liabilities.

⁴ Calculated at historical monthly average rates based on net capital invested excluding goodwill.

⁵ See reconciliation of IFRS to CORE Results in the [Supplementary Financial Information section](#).

Year ended 31 December 2015 million CHF	Specialty Ingredients	Pharma& Biotech	Total operating segments	Corporate/ eliminations	Group total
Sales third-party	2,167	1,596	3,763	40	3,803
Intersegment sales ¹	62	27	89	(89)	0
Total sales	2,229	1,623	3,852	(49)	3,803
Result from operating activities (EBIT)	271	216	487	(59)	428
– Percentage return on sales in %	12.5	13.5	12.9	n.a.	11.3
Financial income					4
Financial expenses					(89)
Net financing costs					(85)
Share of loss of associates / joint ventures					(2)
Profit before income taxes					341
Income taxes					(64)
Profit for the period					277
Included in result from operating activities (EBIT):					
Other operating income ²	23	16	39	14	53
Other operating expenses ²	(23)	(16)	(39)	(26)	(65)
Research and development	(51)	(134)	(185)	0	(185)
Depreciation and amortization	(113)	(143)	(256)	(44)	(300)
Impairment, net of reversal of impairment	(3)	(47)	(50)	(2)	(52)
Restructuring (expenses) / income	(2)	(9)	(11)	(1)	(12)
Environmental (expenses) / income	(1)	0	(1)	(30)	(31)
CORE result from operating activities (EBIT) ⁵	298	284	582	(58)	524
Total assets	3,554	3,596	7,150	(902)	6,248
Total liabilities	462	1,340	1,802	2,311	4,113
Total equity	3,092	2,256	5,348	(3,213)	2,135
Net financial liabilities	(362)	(11)	(373)	3,097	2,724
Net capital invested ³	2,730	2,245	4,975	(116)	4,859
Return on net capital invested (RONOA) ⁴ in %	13.1	10.9	12.0	n.a.	10.8
Included in total assets:					
Total property, plant and equipment	936	1,406	2,342	24	2,366
– Additions to property, plant and equipment	86	145	231	25	256
– Additions to property, plant and equipment from acquisitions	2	0	2	1	3
Total goodwill and intangible assets	1,375	546	1,921	30	1,951
– Additions to intangible assets	3	0	3	5	8
– Additions to goodwill and intangible assets from acquisitions	27	0	27	0	27
Investments in associates / joint ventures	2	2	4	9	13
Headcount	3,474	4,590	8,064	1,765	9,829
Average headcount	3,349	4,710	8,059	1,759	9,818

¹ Intersegment sales were based on prevailing market prices.

² Excluding restructuring- and environment-related income/expenses (CHF 5 million)

³ Net capital invested comprises all operating assets and goodwill less operating liabilities.

⁴ Calculated at historical monthly average rates based on net capital invested excluding goodwill.

⁵ See reconciliation of IFRS to CORE Results in the [Supplementary Financial Information section](#).

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. Intersegment sales and transfers are based on prevailing market prices.

2.4 Geographical Information

Year ended 31 December 2016 million CHF	Revenue from external customers (sales)	Non-current assets				Total
		Property, plant and equipment	Intangible assets	Goodwill	Other non- current assets	
Switzerland	332	910	11	15	10	946
Germany	197	4	27	62	0	93
Ireland	146	1	0	0	0	1
United Kingdom	173	68	57	8	0	133
France	110	1	4	9	0	14
Netherlands	48	0	0	0	0	0
Belgium	19	9	0	54	0	63
Sweden	101	0	0	0	0	0
Italy	37	0	0	10	0	10
Spain	20	117	0	0	0	117
Czech Republic	7	26	0	0	0	26
Rest of Europe	106	3	0	11	0	14
Europe	1,296	1,139	99	169	10	1,417
United States	1,915	745	765	1,099	9	2,618
Canada	67	0	8	4	0	12
Rest of North and Central America	21	0	0	0	0	0
North and Central America	2,003	745	773	1,103	9	2,630
Brazil	104	15	10	0	4	29
Rest of Latin America	25	0	0	0	0	0
Latin America	129	15	10	0	4	29
China	143	216	10	4	0	230
Singapore	139	280	51	0	3	334
Japan	104	0	2	0	0	2
India	67	4	0	2	0	6
Rest of Asia	112	1	0	0	0	1
Asia	565	501	63	6	3	573
South Africa	57	7	4	0	0	11
New Zealand	41	4	14	8	0	26
Other countries	41	1	5	1	0	7
Total	4,132	2,412	968	1,287	26	4,693

Year ended 31 December 2015 million CHF	Revenue from external customers (sales)	Non-current assets				Total
		Property, plant and equipment	Intangible assets	Goodwill	Other non- current assets	
Switzerland	344	938	27	15	2	982
Germany	223	4	30	63	0	97
Ireland	170	1	0	0	0	1
United Kingdom	155	88	65	10	0	163
France	109	2	4	10	0	16
Netherlands	65	0	0	0	0	0
Belgium	51	61	0	85	0	146
Sweden	46	0	0	0	0	0
Italy	32	0	0	10	0	10
Spain	18	119	0	0	0	119
Czech Republic	6	26	0	0	0	26
Rest of Europe	124	2	0	9	0	11
Europe	1,343	1,241	126	202	2	1,571
United States	1,581	579	601	897	9	2,086
Canada	78	0	8	4	0	12
Rest of North and Central America	27	0	0	0	0	0
North and Central America	1,686	579	609	901	9	2,098
Brazil	96	8	9	0	3	20
Rest of Latin America	34	0	0	0	0	0
Latin America	130	8	9	0	3	20
China	149	246	11	4	0	261
Singapore	102	278	52	0	3	333
Japan	99	1	2	0	0	3
India	61	4	0	2	0	6
Rest of Asia	109	0	0	0	1	1
Asia	520	529	65	6	4	604
South Africa	55	4	3	0	0	7
New Zealand	30	4	15	7	0	26
Other countries	39	1	6	2	1	10
Total	3,803	2,366	833	1,118	19	4,336

2.5 Information About Major Customers

In 2016 Lonza's largest customer accounted for 5.3% and the second, third, fourth and fifth largest customers for 5.2%, 4.9%, 4.7% and 3.3% in relation to total Group sales, respectively. No other customer accounted for 3.2% or more of Lonza's total sales. Out of the five largest customers, the second-largest customer relates to the Specialty Ingredients segment, whereas the other largest customers related to the Pharma&Biotech segment.

In 2015 Lonza's largest customer accounted for 5.5% and the second, third, fourth and fifth largest customers for 4.2%, 4.1%, 4.0% and 3.5% in relation to total Group sales, respectively. No other customer accounted for 2.8% or more of Lonza's total sales. The largest customer related to the Specialty Ingredients segment, while the second, third, fourth and fifth largest customers related to the Pharma&Biotech segment.

Note 3 – Restructuring AUDITED ✓

Year ended 31 December 2016 million CHF	Specialty Ingredients	Pharma& Biotech	Corporate	Total
Impairment of property, plant and equipment, intangible assets and goodwill ¹	5	50	0	55
Restructuring charges	9	16	2	27
Total	14	66	2	82

Year ended 31 December 2015 million CHF	Specialty Ingredients	Pharma& Biotech	Corporate	Total
Impairment of property, plant and equipment ¹	3	47	2	52
Restructuring charges	2	9	1	12
Total	5	56	3	64

¹ Net of reversal of impairment (2016: CHF 2 million; 2015: CHF 1 million)

In 2016 the Special Ingredients segment redefined the strategy of its U.S. Water Treatment business. This led to an impairment of dedicated assets (CHF 1 million) and restructuring charges resulting from the write-off and disposal of inventories (CHF 8 million). In addition, Lonza further optimized its product portfolio of the Visp (CH) site, which resulted in impairment losses of CHF 3 million. The costs for these measures are included within cost of goods sold.

The impairment losses within Pharma&Biotech segment include CHF 42 million related to Peptides assets as disclosed in note 4.3, while the restructuring loss of this segment comprise the expected lease termination cost (CHF 13 million) of Lonza's former manufacturing site in Hopkinton, MA (USA). These costs are included in other operating expenses.

The restructuring activities in 2015 reflect the transfer of Lonza's microbial manufacturing from the Kouřim (CZ) site to the Visp (CH) site that resulted in an impairment charge of CHF 39 million and restructuring costs of CHF 8 million. In addition, Lonza recognized an impairment loss of CHF 13 million on property, plant and equipment related to Walkersville, MD (USA). All of these costs were included within cost of goods sold.

Note 4 – Business Combinations & Sale of Businesses AUDITED ✓

4.1 Acquisitions – 2016

Acquisition of InterHealth Nutraceuticals Inc.

Effective 12 September 2016, Lonza acquired 100% of the shares of InterHealth Nutraceuticals Inc. (“InterHealth”) for a total consideration of USD 246 million (CHF 240 million), of which USD 229 million was paid in cash and USD 17 million arose from a contingent consideration arrangement. The contingent payments are based on the achievement of performance-related milestones and the range of undiscounted outcomes is between zero and USD 27.5 million. In addition, Lonza assumed InterHealth's net debt of USD 39 million (debt of USD 46 million net of cash & cash equivalents of USD 7 million) and repaid InterHealth's debt after the acquisition date.

InterHealth is a leader in research, development, manufacture and marketing of proprietary, value-added nutritional ingredients for use in dietary supplements, based in Benicia, CA (USA). The InterHealth business will become part of Lonza's Consumer Care Business Unit, but will retain its facilities and employees. The combination of the two businesses allows Lonza to offer InterHealth's more than 15 branded ingredients, including its cornerstone ingredient, UC-II®.

The InterHealth business is reported within the Specialty Ingredients segment.

From 12 September 2016 to 31 December 2016, the acquired business contributed sales of CHF 21 million and a result from operating activities of CHF 3 million to the Group¹. If the acquisition had occurred on 1 January 2016, Group sales in 2016 would have been CHF 4,170 million (+ CHF 38 million) and the Group result from operating activities CHF 498 million (+ CHF 12 million). These amounts were calculated using the Group's accounting policies and by adjusting the results of the subsidiary to reflect the additional amortization that would have been charged if the fair value adjustments to intangible assets had applied from January 2016.

¹The result from operating activities 2016 includes the impact of the fair value adjustment of acquired inventories (CHF 3 million increased cost of goods sold) as well as the complete amortization of the acquired order backlog (CHF 5 million).

The InterHealth identifiable assets acquired and liabilities assumed are set out in the table below and have been determined on a provisional basis:

million CHF	
Intangible assets	
– Products	57
– Customer relationships	114
– Order backlog	5
Property, plant & equipment	1
Inventories	9
Trade receivables	8
Cash & cash equivalents	7
Deferred tax liabilities	(63)
Debt	(44)
Provisions	(2)
Trade payables	(5)
Other net liabilities	(3)
Net identifiable assets	84
Goodwill	156
Total consideration	240
Cash consideration	223
Contingent consideration	17
Total consideration transferred	240

The fair value of the customer relationships was determined using an excess earning method while the fair value of the products was determined using a relief from royalty method. Both methods are based on management forecasts and observable market data for discount rates, tax rates and foreign exchange rates. The present value was calculated using a risk-adjusted discount rate of 11%. Portions of the valuation of the acquired assets and liabilities of InterHealth was performed by an independent valuation provider.

Goodwill includes the acquired workforce, expected synergies from integrating InterHealth into Lonza's existing business as well as the expected future product development. None of the goodwill recognized is expected to be deductible for income tax purposes. The acquisition has been accounted for using the acquisition method.

Directly attributable transaction costs of CHF 2 million are reported in the Specialty Ingredients segment within administration and general overhead expenses.

Acquisition of Triangle Research Labs

Effective 27 April 2016, Lonza Group acquired Triangle Research Labs for a total consideration of USD 16 million (CHF 15 million), resulting in a goodwill of CHF 12 million. The U.S. – based company manufactures and supplies high-quality hepatocytes for medical and biomedical research in pre-clinical applications. This acquisition supports Lonza's strategy to continue developing its life-science platform and expanding its global cell-biology portfolio.

The acquisition is reported within the Pharma&Biotech segment and does not have a significant impact on the consolidated financial statements for the twelve-month period ended 31 December 2016.

4.2 Acquisitions – 2015

Acquisition of Zelum Holdings Ltd

On 3 August 2015, the Lonza Group acquired 100% of the shares of Zelum Holdings Ltd, based in New Zealand (NZ). Zelum is a research-focused chemical company based in New Zealand (NZ), which develops and manufactures products for crop protection, specializing in fungicides, insecticides, herbicides, foliar nutrients and additives. Zelum also develops and manufactures products for wood protection. Based on the completed purchase price accounting, previously reported fair values of the acquired assets and liabilities were adjusted, which resulted in goodwill of CHF 7 million (2015: CHF 10 million).

Acquisition of Diacon Technologies Ltd

Effective 1 October 2015, Lonza Group acquired 100% of the shares of Diacon Technologies Ltd for a total consideration of CAD 17 million (CHF 12 million), resulting in a goodwill of CHF 4 million. Diacon is a leading formulator and supplier of anti-sapstain chemicals and ancillary sawmill products.

Both 2015 acquisitions are reported within the Specialty Ingredients segment and did not have a significant impact on the consolidated financial statements for the 12-month period ended 31 December 2015.

4.3 Assets Held for Sale – 2016

On 7 December 2016 Lonza announced that it entered into a definitive agreement with PolyPeptide Laboratories Holding (PPL) to sell the peptides business and operations of Lonza in Braine-l'Alleud, Belgium. Lonza's Braine facility, with approximately 280 employees, is the center for peptide chemical development and manufacturing within Lonza. The agreement was subject to customary closing conditions and legally closed on 3 January 2017.

As IFRS 5 held for sale criteria were met in 2016, the Lonza Braine-related assets and liabilities are classified as a disposal group in assets held for sale and liabilities held for sale in the 2016 consolidated balance sheet.

An impairment loss of CHF 42 million has been included in 'Other operating expenses' for the write-down of the Lonza Braine disposal group to its estimated fair value less costs to sell. The impairment loss has been recorded to fully impair the Lonza Braine related goodwill of CHF 31 million as well as to reduce the carrying amount of property, plant & equipment (CHF 9 million) and intangible assets (CHF 2 million).

The agreed sales price (and estimated fair value of the disposal group) consists of an upfront payment from PPL as well as a contingent consideration, which is a percentage of the Lonza Braine net sales of the next five years.

At 31 December 2016 the assets held for sale and liabilities held for sale related to the Lonza Braine disposal are the following:

million CHF	
Property, plant & equipment	39
Customer relationships	10
Deferred tax assets	4
Inventories	34
Cash and cash equivalents	4
Assets held for sale	91
Employee benefit liability	16
Trade payables	3
Other current operating liabilities	21
Liabilities held for sale	40

The cumulative income or expense recognized in other comprehensive income related to the Lonza Braine operations is as follows:

million CHF	
Re-measurements of net defined benefit liability, net of taxes	6
Exchange differences on translating foreign operations, net of taxes	29
Cumulative expense recognized in other comprehensive income	35

As a result of the closing of the transaction on 3 January 2017, the accumulated exchange rate translation reserve losses of CHF 29 million will be reclassified to the income statement in 2017.

4.4 Planned Acquisition of Capsugel

On 15 December 2016, Lonza announced that it has entered into a definitive agreement with KKR under which Lonza will acquire Capsugel S.A. (“Capsugel”) for USD 5.5 billion (CHF 5.60 billion at 2016 year-end rates) in cash, including refinancing of existing Capsugel debt of approximately USD 2 billion (CHF 2.04 billion at 2016 year-end rates), through a transaction that has been approved by the Boards of Directors of both Lonza and Capsugel.

Capsugel designs, develops and manufactures a wide range of innovative dosage forms for the biopharmaceutical and consumer health and nutrition industries.

The USD 5.5 billion all-cash acquisition of Capsugel is expected to be financed with a combination of debt and equity financing. Lonza has committed debt financing for the full acquisition amount from Bank of America Merrill Lynch and UBS and plans to raise equity which is fully underwritten by UBS and Bank of America Merrill Lynch for an amount up to CHF 3.3 billion.

Lonza Group Ltd has successfully placed 5 million new shares (from Lonza Group Ltd’s authorized capital as described in [note 25](#)) by way of an accelerated book building procedure with selected investors in Switzerland (private placement) and outside of Switzerland to institutional investors and qualified institutional buyers. The shares were placed at CHF 173.00 per new shares and the gross proceeds from the Placement amount are equal to CHF 865 million, which are intended to partially finance the acquisition of Capsugel. The new shares have been listed and are admitted to trading on the SIX Swiss Exchange on 3 February 2017.

Lonza’s Board intends to seek approval for additional share capital at its upcoming annual general meeting (AGM) in April 2017. The transaction is expected to close in the second quarter of 2017 and is subject to certain regulatory approvals and other customary closing conditions.

The impact from this transaction on the 2016 consolidated financial statements is limited to transaction related costs of CHF 11 million, paid fees of CHF 26 million for credit facilities committed by banks (whereof CHF 18 million classified as current and CHF 8 million as non-current) as well as derivative financial instruments to manage Lonza’s foreign currency exposure (see [note 28.5](#)).

Note 5 – Intangible Assets and Goodwill AUDITED ✓

5.1 Cost and Accumulated Amortization and Impairment

Year ended 31 December 2016 million CHF	Goodwill	Arch Chemicals Inc. / Cambrex trademarks	Patents, trademarks, client relationship	Computer software	Development cost	Construction in progress	Total
Cost							
At 1 January	1,124	384	574	129	93	3	2,307
Additions	0	0	1	10	0	0	11
Disposals	0	0	0	(3)	0	0	(3)
Acquisition of subsidiaries	168	0	176	0	0	0	344
Transfer to assets held for sale (note 4)	(36)	0	(34)	(2)	0	0	(72)
Transfers / reclassification	0	0	0	2	0	(2)	0
Currency translation differences	31	4	16	2	2	0	55
At 31 December	1,287	388	733	138	95	1	2,642
Accumulated amortization and impairment							
At 1 January	(6)	0	(217)	(99)	(34)	0	(356)
Amortization	0	0	(38)	(13)	(7)	0	(58)
Disposals	0	0	0	2	0	0	2
Impairment losses	(31)	(1)	(2)	0	0	0	(34)
Transfer to assets held for sale (note 4)	36	0	24	2	0	0	62
Currency translation differences	1	0	(2)	(1)	(1)	0	(3)
At 31 December	0	(1)	(235)	(109)	(42)	0	(387)
Net carrying amount 31 December	1,287	387	498	29	53	1	2,255

Year ended 31 December 2015 million CHF	Goodwill ¹	Arch Chemicals Inc. / Cambrex trademarks	Patents, trademarks, client relationship ¹	Computer software	Development cost	Construction in progress	Total
Cost							
At 1 January	1,137	386	593	118	98	6	2,338
Additions	0	0	1	4	0	3	8
Disposals	0	0	(14)	(1)	(6)	0	(21)
Acquisition of subsidiaries	11	0	15	0	1	0	27
Disposal of subsidiary	(4)	0	0	0	0	0	(4)
Transfers / reclassification	0	0	(3)	9	0	(6)	0
Currency translation differences	(20)	(2)	(18)	(1)	0	0	(41)
At 31 December	1,124	384	574	129	93	3	2,307
Accumulated amortization and impairment							
At 1 January	(7)	0	(205)	(86)	(33)	0	(331)
Depreciation charge	0	0	(36)	(8)	(7)	0	(51)
Disposals	0	0	14	1	6	0	21
Transfers / reclassification	0	0	6	(6)	0	0	0
Currency translation differences	1	0	4	0	0	0	5
At 31 December, as reported	(6)	0	(217)	(99)	(34)	0	(356)
Net carrying amount 31 December	1,118	384	357	30	59	3	1,951

¹ Restated to reflect final purchase accounting for Zelam Ltd (reclassification of CHF 3 million from goodwill to intangible assets)

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

Trademarks acquired through the Arch Chemicals Inc. (2011) and Cambrex (2007) acquisitions are considered to have indefinite useful lives. As a result, these intangible assets with a carrying amount of CHF 387 million as of 31 December 2016 (2015: CHF 384 million) are not systematically amortized.

Development costs as of 31 December 2016 include technology acquired with the Arch Chemical Inc. acquisition of CHF 49 million (2015: CHF 54 million), the Cambrex acquisition of CHF 3 million (2015: CHF 3 million) and the Diacon acquisition of CHF 1 million (2015: CHF 1 million).

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

The Group has identified the following cash-generating units:

Specialty Ingredients

The segment's business units are the cash-generating units used for the impairment testing of goodwill and intangible assets with indefinite useful lives, with the exception that the Wood Protection business continues to be considered as a separate cash-generating unit due to its independent cash flows, despite the fact that this business was integrated into the Coating & Composites business unit, effective for the 2016 financial year.

Pharma&Biotech

The various technologies (mammalian, chemical, etc.) applied within the segment are the cash-generating units used for the impairment testing of goodwill and intangibles assets with indefinite useful lives.

The following cash-generating units maintain carrying amounts of goodwill as presented below (at year-end exchange rates):

million CHF	2016	2015 ¹
Specialty Ingredients (representing a group of cash-generating units)	743	722
Bioscience Solutions / Cell Therapy / Viral Therapeutics (representing a group of cash-generating units)	341	324
Consumer Products Ingredients	² 163	0
Mammalian (custom manufacturing and related development services)	24	26
Chemical (custom manufacturing and related development services)	0	31
Agro Ingredients	12	11
Wood Protection	4	4
Total carrying amounts of goodwill	1,287	1,118

¹ Restated to reflect final purchase accounting for Zelam Ltd (reclassification of CHF 3 million from goodwill to intangible assets)

² Amount reflects goodwill acquired in connection with the acquisition of InterHealth Nutraceuticals (see [note 4.1](#))

The Chemical cash-generating unit does not maintain goodwill anymore, as a result of the impairment due to the sale of Lonza's Braine (BE) site (see [note 4.3](#)).

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

million CHF	2016	2015
Specialty Ingredients (representing a group of cash-generating units)	360	357
Bioscience Solutions / Cell Therapy / Viral Therapeutics (representing a group of cash-generating units)	27	27
Total carrying amounts of intangible assets with indefinite useful life	387	384

The recoverable amount of the above cash-generating units is based on the value-in-use calculation. These cash flow projections for 2017 to 2021 are based on the business strategy review and exclude any future cash inflows and outflows expected to arise from growth potential of future capital expenditures.

The cash flow projections beyond the five-year period, as stated in the respective paragraphs of the cash-generating units, 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 recovery value of the significant cash-generating units are based on the following:

The Specialty Ingredients business includes the cash-generating units of Consumer Products Ingredients, Agro Ingredients, Coatings and Composites (excluding Wood Protection), Wood Protection and Water Treatment. These cash-generating units are the combination of the activities acquired through the Arch Chemicals acquisition in 2011, as well as the former Life Science Ingredients activities of Lonza. The cash flow projections for 2017–2021 are based on a 4.5% (2015: 4.2%) average sales growth. The cash flow projections beyond the five-year period are based on a 1% growth rate (2015: 1%). A pre-tax discount rate of 8.5% (2015: 9.4%) has been used in discounting the projected cash flows. Management believes that any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the carrying amount to exceed its recoverable amount.

The Bioscience Solutions / Cell Therapy / Viral Therapeutics businesses include the Cambrex Corporation, acquired in 2007, the amaxa business, acquired in 2008, MODA Technology Partners and Vivante GMP Solutions, acquired in 2010, as well as Triangle Research Labs, acquired in April 2016, respectively. The cash flow projections for 2017–2021 are based on a 9.4% (2015: 11.2%) average sales growth. The cash flow projections beyond the five-year period are extrapolated using a 0.5% growth rate (2015: 0.5%). A pre-tax discount rate of 7.7% (2015: 8.6%) has been used in discounting the projected cash flows. Management believes that any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the carrying amount to exceed its recoverable amount.

The goodwill arising from the acquisition of InterHealth Nutraceuticals in September 2016 is allocated to the Consumer Products Ingredients business. The cash flow projections for 2017–2021 are based on a 7.6% average sales growth with growing EBIT margins. The cash flow projections beyond the five-year period are based on a 1% growth rate. A pre-tax discount rate of 8.1% has been used in discounting the projected cash flows. Management believes that any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the carrying amount to exceed its recoverable amount.

In addition, the following table summarizes the assumptions applied for the other cash-generating units:

in %	2016	2015
Mammalian CGU		
Pre-tax discount rate	8.0	7.7
Sales growth rate during forecast period	5.0	7.5
Sales growth rate after forecast period	0.0	0.0
Agro Ingredients CGU		
Pre-tax discount rate	7.8	8.4
Sales growth rate during forecast period	3.9	4.1
Sales growth rate after forecast period	1.0	1.0
Wood Protection CGU		
Pre-tax discount rate	8.3	9.5
Sales growth rate during forecast period	3.7	6.4
Sales growth rate after forecast period	1.0	1.0

Management believes that any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the carrying amount to exceed its recoverable amount.

Note 6 – Property, Plant and Equipment AUDITED ✓

Year ended 31 December 2016 million CHF	Land	Buildings and structures	Production facilities	Construction in progress	Total
Cost					
At 1 January	48	1,728	3,915	225	5,916
Additions	0	13	70	272	355
Disposals	0	(12)	(120)	(1)	(133)
Acquisition of subsidiaries	0	0	1	0	1
Transfer to assets held for sale (note 4.3)	(8)	(19)	(65)	0	(92)
Transfers / reclassification	0	22	105	(127)	0
Currency translation differences	0	9	(3)	5	11
At 31 December	40	1,741	3,903	374	6,058
Accumulated depreciation and impairment					
At 1 January	(3)	(858)	(2,689)	0	(3,550)
Depreciation charge	0	(60)	(189)	0	(249)
Disposals	0	9	114	0	123
Impairment losses (note 3)	0	(3)	(20)	0	(23)
Reversal of impairment losses (note 3)	0	0	2	0	2
Transfer to assets held for sale (note 4.3)	0	9	44	0	53
Currency translation differences	0	(3)	1	0	(2)
At 31 December	(3)	(906)	(2,737)	0	(3,646)
Net carrying amount 31 December	37	835	1,166	374	2,412

Year ended 31 December 2015 million CHF	Land	Buildings and structures	Production facilities	Construction in progress	Total
Cost					
At 1 January	49	1,693	3,898	161	5,801
Additions	0	15	69	172	256
Disposals	(1)	(5)	(45)	0	(51)
Acquisition of subsidiaries	1	1	1	0	3
Transfers / reclassification	0	45	62	(107)	0
Currency translation differences	(1)	(21)	(70)	(1)	(93)
At 31 December	48	1,728	3,915	225	5,916
Accumulated depreciation and impairment					
At 1 January	(2)	(788)	(2,545)	0	(3,335)
Depreciation charge	0	(59)	(190)	0	(249)
Disposals	0	4	39	0	43
Impairment losses (note 3)	0	(17)	(36)	0	(53)
Reversal of impairment losses (note 3)	0	0	1	0	1
Transfers / reclassification	0	(4)	4	0	0
Currency translation differences	(1)	6	38	0	43
At 31 December	(3)	(858)	(2,689)	0	(3,550)
Net carrying amount 31 December	45	870	1,226	225	2,366

Commitments for capital expenditure in property, plant and equipment amounted to CHF 165 million at year-end 2016 (2015: CHF 72 million), mainly related to capital expenditures at the US sites in Portsmouth and Houston as well as for the Swiss-based operations. The carrying amount of property, plant and equipment under finance lease contracts at year-end 2016 amounted to CHF 5 million (2015: CHF 5 million). Depreciation relating to property, plant and equipment under finance lease amounted to CHF 0.3 million (2015: CHF 0.2 million). No assets were pledged for security of own liabilities in 2016 and 2015. The Group's obligation under finance leases is secured by the lessors' title to the leased assets.

Leases

1. Lessee

million CHF	2016	2015
Finance lease liabilities – minimum lease payments		
Not later than 1 year	0	0
Later than 1 year and not later than 5 years	3	2
Later than 5 years	8	8
Total future minimum finance lease payments	11	10
Future finance charges on finance lease payments	(5)	(5)
Present value of minimum finance lease payments	6	5
Present value of finance lease liabilities		
Not later than 1 year	0	0
Later than 1 year and not later than 5 years	1	1
Later than 5 years	5	4
Present value of minimum finance lease payments	6	5
Operating lease liabilities – minimum lease payments		
Not later than 1 year	15	13
Later than 1 year and not later than 5 years	38	35
Later than 5 years	42	39
Total future minimum operating lease payments	95	87

Lonza leases a number of vehicles, buildings, warehouses, factory and office facilities under operating leases. These leases run for periods between one and 20 years, all with an option to renew the lease after that date. None of the leases include contingent rentals.

During the year ended 31 December 2016, CHF 19 million (2015: CHF 16 million) was recognized as an expense in the consolidated income statement in respect of operating leases.

The land and building elements of a lease of land and buildings were considered separately for the purpose of lease classification as outlined in IAS 17.

2. Lessor

There is an operating lease for which Lonza acts as lessor. This lease falls within the scope of IAS 17 and IFRIC 4 guidance. It consists primarily of a biopharmaceutical manufacturing facility in Visp. The future minimum lease payments under non-cancelable operating leases are zero, because the lease payments are pre-financed by the customer.

Note 7 – Investments in Associates and Joint Ventures AUDITED ✓

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

million CHF	2016	2015
Balance sheet value		
Interests in joint ventures	5	3
Interests in associates	13	10
Total	18	13
Net income statement effect		
Share of profit / (loss) of joint ventures	1	(3)
Share of profit / (loss) of associates	(2)	1
Total	(1)	(2)

7.1 Joint Ventures

The Group has interests in three individually immaterial joint ventures. The following table analyzes, in aggregate, the carrying amount and share of profit and other comprehensive income of these joint ventures:

million CHF	2016	2015
Carrying amount of interests in joint ventures	5	3
Share of profit / (loss)	1	(3)
Share of other comprehensive income	0	0

In 2016 the Group received dividends of CHF 0 (2015: CHF 1 million) from these joint ventures.

7.2 Associates

The Group has interests in three individually immaterial associates. The following table analyzes, in aggregate, the carrying amount and share of profit and other comprehensive income of these associates:

million CHF	2016	2015
Carrying amount of interests in associates	13	10
Share of profit / (loss)	(2)	1
Share of other comprehensive income	0	0

In 2016 the Group received dividends of CHF 0 (2015: CHF 4 million) from associates.

Note 8 – Inventories AUDITED ✓

million CHF	2016	2015
Inventories	1,006	993
Value adjustments	(109)	(100)
Total	897	893

million CHF		2016		2015
Raw materials	22%	200	23%	203
Work in progress	6%	58	3%	30
Finished goods	49%	439	51%	455
Other	22%	200	23%	205
Total	100%	897	100%	893

By Operating Segments

million CHF		2016		2015
Specialty Ingredients	47%	421	52%	461
Pharma&Biotech	53%	476	48%	432
Total	100%	897	100%	893

The development of inventory value adjustments in 2016 is shown as follows:

Inventory Write-Downs

million CHF				2016	2015
	Raw materials	Work in progress and finished goods	Other	Total	Total
At 1 January	14	50	36	100	90
Increase	29	238	6	273	214
Reversal / Utilization of write-downs	(28)	(226)	(6)	(260)	(202)
Transfer to assets held for sale	(2)	(6)	0	(8)	0
Currency translation differences	0	3	1	4	(2)
At 31 December	13	59	37	109	100

The cost of inventories recognized as expenses during the period and included in “Cost of goods sold” amounted to CHF 2,633 million (2015: CHF 2,569 million).

Note 9 – Development Contracts AUDITED ✓

In the Pharma&Biotech segment, the percentage of completion (POC) method was applied to account for development contracts as well as a long-term manufacturing contract with the economic substance of a construction contract. The stage of completion is estimated on the basis of costs incurred, compared with total forecasted costs. This accounting method is applied only to customer contracts with defined payment and delivery dates. Contract costs are usually recognized as an expense in the income statement in the accounting periods in which the work is performed. An expected excess of contract cost over total contract revenue is recognized as an expense as soon as it is apparent that total contract cost may exceed total contract revenue.

million CHF	2016	2015
Contract revenue recognized as revenue in the period	59	98
– Contract costs incurred	7	8
– Recognized profits less recognized losses	1	8
Contract costs incurred plus recognized profits / less recognized losses	8	16
Less progress billings	(2)	0
Total net amount due from customers	6	16
Gross amount due from customers for contract work	6	16

Note 10 – Trade Receivables AUDITED ✓

million CHF	2016	2015
Receivables from customers	623	545
Allowances for credit losses	(11)	(7)
Total	612	538

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 2016, there were no significant concentrations of credit risk. The maximum exposure to credit risk is equal to the carrying amounts.

Aging of Trade Receivables

million CHF	2016	2015
Not past due	515	429
Past due 1–30 days	76	89
Past due 31–120 days	28	16
Past due more than 120 days	4	11
Total	623	545

Reconciliation of changes in allowance accounts for credit losses

million CHF	2016	2015
Balance at the beginning of the year	7	7
Write-offs	(3)	(1)
Increase in provision for credit losses	9	5
Decrease in provision for credit losses	(2)	(4)
Balance at the end of the year	11	7

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

Accounts Receivable Securitization Program

Lonza has a securitization program with Market Street Funding LLC and PNC Bank, National Association. Under the program Lonza sells U.S. trade accounts receivable, and certain Canadian trade accounts receivable, to Market Street Funding LLC through its wholly owned subsidiary, Arch Chemicals Receivables LLC.

The amount of funding that Lonza can obtain under the program is subject to change based upon the level of eligible receivables, with a maximum funding amount of USD 28 million (2015: USD 47 million).

Under the program, the payment by Market Street Funding LLC for a portion of the purchase price is deferred until the transferred underlying receivables have been completely settled. Lonza's maximum exposure related to the receivables sold is equal to the deferred purchase price component, which is substantially higher than the average expected credit loss on the receivables. As a result, Lonza continues to recognize all of the transferred receivables in the consolidated balance sheet.

As of 31 December 2016, the consolidated balance sheet includes receivables of USD 73 million (2015: USD 79 million) which Lonza sold to Market Street Funding LLC and for which it obtained funds of USD 22 million (2015: USD 30 million). These are disclosed as "Other current liabilities" ([note 15](#)).

Note 11 – Other Receivables, Prepaid Expenses and Accrued Income AUDITED ✓

million CHF	2016	2015
Other receivables	73	58
Prepaid taxes and social security payments	13	7
Prepaid expenses and accrued income	54	47
Derivative financial instruments (see note 28.5)	16	3
Fees paid for debt facilities (see note 4.4)	18	0
Total	174	115

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

Note 12 – Cash and Cash Equivalents AUDITED ✓

million CHF	2016	2015
Cash	222	264
Time deposits	52	13
Total	274	277

Note 13 – Provisions AUDITED ✓

Non-Current Provisions

million CHF	Environmental	Restructuring	Other	Total
At 1 January 2016	61	2	5	68
Increase	25	1	0	26
Used	(4)	0	0	(4)
Discount effect	1	0	0	1
Reclassification (to current provisions)	0	(1)	0	(1)
Currency translation differences	(1)	0	1	0
At 31 December 2016	82	2	6	90

Current Provisions

million CHF	Environmental	Restructuring	Other	Total
At 1 January 2016	12	11	10	33
Increase	3	19	12	34
Used	(4)	(8)	(5)	(17)
Reversed	0	(1)	(3)	(4)
Reclassification (from non-current provisions)	0	1	0	1
Currency translation differences	(1)	1	2	2
At 31 December 2016	10	23	16	49

Environmental

The environmental provision mainly reflects the future expenses for environmental remediation and protection for the plants in Visp (CH) and Castleford (UK) as well as for various other plants of the acquired legacy Arch Chemicals business and is expected to be utilized within ten years. The legacy Arch-related provisions include environmental risks for existing as well as divested plants.

Restructuring

The restructuring provision primarily contains the expected lease termination costs related to the phasedown of the Hopkinton, MA (USA) site amounting to CHF 17 million (2015: CHF 8 million) as well as CHF 6 million (2015: CHF 4 million) in relation to the VispChallenge restructuring program. The implementation of the planned measures is expected to be completed in 2017.

Other

Other provisions are mainly associated with customer claims and the asset retirement obligations of the Singapore-based operations.

Note 14 – Net Debt AUDITED ✓

The net debt comprises:

million CHF	2016	2015
Debt		
Non-current debt	1,571	1,414
Current debt	289	524
Total debt	1,860	1,938
Loans and advances (floating interest rates)		
Non-current loans and advances	(1)	(1)
Current advances	(1)	0
Cash and cash equivalents	(274)	(277)
Total loans and advances and cash and cash equivalents	(276)	(278)
Net debt	1,584	1,660

Non-current debt

million CHF	2016	2015
Straight bonds	1,317	1,067
Syndicated loan (2011–2018)	99	0
German private placement	5	49
Other long-term debt	144	293
Finance lease liabilities	6	5
Total non-current debt	1,571	1,414

Straight Bonds – Fixed Interest Rates

million CHF	2016	2015
3% CHF 400 million, 2010/2016, due 2 June 2016, issued at 100.721%	0	400
3.125% CHF 140 million, 2011/2018, due 7 December 2018, issued at 100.56%	139	139
2% CHF 200 million, 2012/2018, due 11 October 2018, issued at 100.21%	200	199
3% CHF 105 million, 2012/2022, due 11 October 2022, issued at 100.74%	105	105
1.75% CHF 300 million, 2013/2019, due 10 April 2019, issued at 100.45%	299	299
0.625% CHF 150 million, 2015/2020, due 22 September 2020, issued at 100.133%	150	150
1.25% CHF 175 million, 2015/2023, due 22 September 2023, issued at 100.133%	175	175
0.125% CHF 250 million, 2016/2021, due 1 November 2021, issued at 100.037%	249	0
Total including current portion	1,317	1,467
Less current portion of straight bonds	0	(400)
Total non-current straight bonds	1,317	1,067

Syndicated Loan

The Syndicated loan facility of CHF 700 million, of which CHF 100 million (2015: not used) was used as of 31 December 2016, has floating interest rates (CHF LIBOR + margin, depending on margin grid). Lonza has not hedged the related interest rate risk. The entire loan facility is granted until 2016, CHF 637 million until 2017 and CHF 614 million until 9 September 2018.

The syndicated loan agreement contains a financial covenant that is based on Lonza's net debt / EBITDA ratio. The Group was released in 2015 from this covenant as the net debt / EBITDA ratio fell below a defined threshold.

German Private Placement

Dual-currency German private placement (Schuldscheindarlehen) of EUR 34 million (2015: EUR 34 million) and USD 12 million (2015: USD 12 million) tranches carry fixed and floating interest rates (LIBOR / EURIBOR + margin) and are repayable in 2017 and 2019. The carrying amount is CHF 49 million as of 31 December 2016 (2015: CHF 49 million), of which CHF 44 million is disclosed as current debt. There were no repayments in 2016 (2015: CHF 155 million).

Others

Other non-current debt comprises industrial revenue bonds of USD 142 million issued by governmental institutions in the United States (repayable in 2020, 2022, 2025 and 2030). The private placement of senior notes amounting to USD 158 million with certain institutional investors is classified as current as of 31 December 2016.

Current Debt

million CHF	2016		2015	
Due to banks and other financial institutions		68		80
Others		16		44
Non-current debt due within one year				
– Straight bond (2010–2016)		0		400
– German private placement		44		0
– US private placement		161	205	400
Total current debt		289		524

Breakdown of Total Debt by Currencies

million CHF	2016		2015		
	Average interest rate %	%	Average interest rate %	%	
CHF	1.41	80	1.92	78	1,508
EUR	2.12	2	2.13	2	37
USD	2.63	18	2.88	20	393
Other	0	0	0.00	0	0
Total		100		100	1,938

Note 15 – Other Current Liabilities AUDITED ✓

million CHF	2016	2015
Accrued liabilities and other payables	551	401
Derivative financial instruments (see note 28.5)	87	34
Liability related to securitization program (see note 10)	22	30
Other financial liabilities	212	158
Accrued interest payables	10	15
Total	882	638

“Accrued liabilities and other payables” include accruals and deferred income, such as down-payments from customers.

Note 16 – Trade Payables AUDITED ✓

million CHF	2016	2015
Payable to third parties	284	292
Total	284	292

“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 17 – Material and Energy Costs AUDITED ✓

million CHF	2016	2015
Material costs	1,386	1,396
Energy costs	69	75
Total	1,455	1,471

Note 18 – Personnel Expenses AUDITED ✓

million CHF	2016	2015
Wages and salaries	898	778
Operating expenses defined benefit pension plans (note 23)	45	8
Other social security contributions	188	166
Other personnel expenses	70	43
Total	1,201	995

Note 19 – Other Operating Income and Expenses AUDITED ✓

19.1 Other Operating Income

million CHF	2016	2015
Gain from foreign exchange rate differences and other operating derivative instruments	8	24
Release of provisions	4	5
Research & development tax credits	6	3
Sundry income	14	23
Total	32	55

19.2 Other Operating Expenses

million CHF	2016	2015
Loss from disposal of property, plant and equipment	9	7
Loss from foreign exchange rate differences and other operating derivative instruments	5	22
Increase in provisions	28	3
Impairment of assets (see note 4.3)	42	0
Sundry expense	20	39
Total	104	71

Note 20 – Financial Result AUDITED ✓

20.1 Interest and Other Financial Income

million CHF	2016	2015
Interest income	2	4
Total	2	4

20.2 Interest and Other Financial Expenses

million CHF	2016	2015
Interest expenses	(76)	(80)
Foreign exchange rate differences, including impact from currency-related financial derivative instruments	(29)	(2)
Other financial expenses	(9)	(7)
Total	(114)	(89)

“Interest expenses” comprise interest expenses on the Group’s debt (refer to [note 14](#)), the net defined-benefit liabilities (see [note 23](#)), the accounts receivable securitization program (see [note 10](#)) as well as other interest.

Note 21 – Taxes AUDITED ✓

21.1 Income Taxes

Major Components of Tax Expenses

million CHF	2016	2015
Current taxes	(54)	(58)
Deferred tax expense relating to the origination and reversal of temporary differences	(16)	(7)
Deferred tax income resulting from tax rate changes	(2)	1
Total	(72)	(64)

Lonza Group Ltd and the operating company Lonza Ltd are domiciled in Switzerland. The maximum rate of all income taxes on companies domiciled in Switzerland is 8% (2015: 8%) for holding companies and 22% for operating companies in the Canton of Valais (2015: 22%).

Since the Group operates across the world, it is subject to income taxes in several different tax jurisdictions. Lonza uses, as the Group's tax rate, the ordinary tax rate for a legal entity in the Canton of Valais in Switzerland. The Group's effective tax rate for 2016 is 19% (2015: 19%).

Capital taxes of CHF 12 million (2015: CHF 16 million) are included in "Administration and general overheads".

Reconciliation of Tax Expense

million CHF	2016	2015
Profit before income taxes	373	341
Tax at the group rate (2016: 22 % / 2015: 22 %)	82	75
Deviation from average group tax rate	3	14
Non-deductible expenses	4	4
Tax-free earnings	(17)	(13)
Deferred tax effect from tax rate changes	(2)	1
Changes in prior year estimates (including valuation allowances)	9	(11)
Tax on unremitted earnings	(9)	(13)
Effect of non-recognition of deferred tax assets	3	7
Other	(1)	0
Total	72	64
Deferred tax expenses (charged) / credited directly to equity	0	0
Current tax expenses (charged) / credited directly to equity	(2)	0

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	2016		2015	
	Assets	Liabilities	Assets	Liabilities
Current provisions	6	17	4	12
Non-current provisions / Employee benefit liability	305	86	283	65
Intangible assets	1	357	0	291
Inventories, net	6	29	4	30
Property, plant and equipment	12	156	14	154
Other assets	8	23	21	43
Tax loss carry-forwards	39	0	61	0
Netting of deferred tax assets and deferred tax liabilities	(339)	(339)	(340)	(340)
Total	38	329	47	255

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

million CHF	2016	2015
Deferred tax assets	38	47
Deferred tax liabilities	(329)	(255)
Net deferred tax liability, at 31 December	(291)	(208)
Less deferred tax liabilities net, at 1 January	208	209
(Increase) / decrease in deferred tax liabilities, net	(83)	1
Currency translation differences	7	(3)
Acquisition of subsidiaries	64	4
Movements of deferred (tax assets) / liabilities recognized in other comprehensive income	(10)	(8)
Reclassification to assets held for sale	4	0
Expense recognized in income statement	(18)	(6)

Unrecognized Tax Losses: Expiry

million CHF	2016	2015
Within 1 year	0	0
Between 2 to 5 years	72	37
After 5 years	32	75
Unlimited	168	173
Total	272	285

In assessing whether it is probable that future taxable profit will be available to offset these tax loss carry-forwards, management considers a portion of such benefits to be 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 the withholding tax and 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, regarded as permanently reinvested, were CHF 543 million at 31 December 2016 (2015: CHF 451 million).

21.2 Disclosure of Tax Effects to Each Component of Other Comprehensive Income

million CHF	2016			2015		
	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	4	(1)	3	(113)	0	(113)
Cash flow hedges	(1)	(1)	(2)	7	(1)	6
Remeasurement of defined-benefit liability	(37)	10	(27)	(58)	8	(50)
Other comprehensive income	(34)	8	(26)	(164)	7	(157)

Note 22 – Research and Development Costs

AUDITED ✓

Research and 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 research and development costs amounted to CHF 144 million (2015: CHF 185 million) and represent the full range of R&D activity. However, the consolidated income statement discloses research and development costs of only CHF 84 million (2015: CHF 103 million), as the remainder of such costs are absorbed in “Cost of goods sold” for R&D products and services sold.

Note 23 – Employee Benefit Liabilities AUDITED ✓

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

million CHF	2016	2015
Defined benefit pension plans (see note 23.1)	673	694
Post-employment medical benefits (see note 23.2)	40	38
Non-current vacation accrual (Swiss entities)	3	3
Other employee benefit liabilities	1	3
Total	717	738

million CHF	2016	2015
Remeasurement for:		
Defined-benefit pension plans (see note 23.1)	36	60
Post-employment medical benefits (see note 23.2)	1	(2)
Total	37	58

23.1 Defined-Benefit Pension Plans

The group operates defined-benefit pension plans in various countries, with the major plans being in Switzerland, Great Britain and the United States (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 2017. 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 annuity is calculated by multiplying the retirement capital with the applicable conversion rate defined in the fund rules. 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.

Pension Plan in the UK

The Group operates two major plans in the UK, the Hickson UK Group Pension Scheme and the Lonza Biologics Pension Scheme. Both plans are closed to new entrants. In addition, both schemes are registered schemes under UK legislation, are contracted out of the State Second Pension and are subject to the scheme funding requirements outlined in UK legislation.

The Hickson UK Group Pension Scheme is the defined-benefit pension plan of the UK Arch Chemicals business. Pensions are linked to final salaries and service, and statutory inflation increases apply, except where contractually different. Ongoing contributions are sufficient to fund current accrual rates, and a deficit recovery plan has been in place for a number of years to recover any shortfall in funding. The fund is managed by a corporate trustee body, which oversees investment strategy and general regulatory compliance. It also maintains a set of assumptions around mortality and returns on investments as well as cost inflation.

The Lonza Biologics Pension Scheme provides pensions in retirement and death benefits to members. Pension benefits are linked to a member's final salary at retirement and their length of service. The Trustees are responsible for the operation and the governance of the Scheme, including making decisions regarding the Scheme's funding and investment strategy in conjunction with the Employer.

Pension Plans in the United States

Lonza currently sponsors three qualified defined-benefit pension plans in the United States. In recent years, two existing pension plans were merged into the Employees' Retirement Plan of Lonza Inc., thereby reducing the number of stand-alone defined-benefit pension plans from five to three. All of the defined-benefit pension plans are fully frozen with respect to future benefit accruals (with the exception of a small group of participants in the collectively bargained pension plan for Williamsport union employees who had attained age 50 as of June 30, 2010 who continue to accrue benefits under the plan). All eligible U.S. employees currently participate in a defined-contribution retirement plan.

As of December 31, 2016, the Pension Plan of Arch Chemicals and the Employees' Retirement Plan of Lonza Inc. purchased a Group Annuity Contract and transferred the related liability and plan assets for a selected group of retirees (approximately 1,500) from two of the pension plans to Voya Retirement Insurance and Annuity Company, resulting in a settlement gain of CHF 1 million.

Pension benefits for the majority of U.S. pension plan participants are generally based on final average pay and credited service as of the date of termination or as of the date benefit accruals were frozen (if earlier), and are payable as a lifetime pension. The collectively bargained pension plan for the Williamsport Union employees is a multiplier plan which uses a flat dollar amount multiplied by a years-of-service formula. Participants in the Cash Balance formula under the Pension Plan of Arch Chemicals are covered under an account-based formula that is credited each year with interest based on the yield on ten-year U.S. Treasury securities. Participants in these plans may commence benefit payments upon attainment of normal retirement age or, if applicable, as of an early retirement age (usually age 55) provided the criteria for early retirement have been met as of the participant's termination of employment with the Company. Participants in the Cash Balance plan may elect to commence benefits upon termination of employment either in a single lump sum or as a lifetime annuity, or they may defer payment to a later date.

Pension benefit payments from the qualified pension plans are paid from a trustee-administered fund; however, there are also some small, non-qualified, unfunded plans where Lonza meets the benefit payment obligation as such benefits become due. The qualified defined-benefit plans, whose assets are held in a master trust, are subject to minimum funding requirements and are subject to further regulation under the Internal Revenue Code and the Employees Retirement Income Security Act of 1974 (ERISA). Responsibility for governance of these qualified plans lies with a committee of pension plan fiduciaries appointed by Lonza. Actuarial valuations are completed each year for each plan to determine the contribution requirement. The minimum annual contribution for each plan is equal to the present value of benefits accrued each year (if any), plus expected administrative expenses of the plan to be paid from the trust, plus a rolling amortization of any prior underfunding. The plan sponsor may elect to contribute more than the minimum, in which case the excess amounts may under certain circumstances be used to offset future funding requirements.

The movement in the net defined-benefit liability over 2015–2016 is as follows:

million CHF	Defined-benefit obligation	Fair value of plan assets	Net defined-benefit liability
At 1 January 2015	3,033	(2,359)	674
Included in profit or loss			
Current service cost	49	0	49
Past service credit	(41)	0	(41)
Interest expense / (income)	66	(50)	16
Included in other comprehensive income			
Actuarial loss / (gain) arising from:			
– Demographic assumptions	(9)	0	(9)
– Financial assumptions	(17)	0	(17)
– Experience adjustment	123	0	123
Return on plan assets excluding interest income	0	(37)	(37)
Remeasurements loss / (gain)	97	(37)	60
Effect of movements in exchange rates	(40)	30	(10)
Other			
Contributions paid:			
– Employers	0	(54)	(54)
– Plan participants	17	(17)	0
Benefits paid	(115)	115	0
At 31 December 2015	¹ 3,066	(2,372)	694
Included in profit or loss			
Current service cost	46	0	46
Gains on settlements	(58)	57	(1)
Interest expense / (income)	63	(48)	15
Included in other comprehensive income			
Actuarial loss / (gain) arising from:			
– Demographic assumptions	(19)	0	(19)
– Financial assumptions	202	0	202
– Experience adjustment	44	0	44
Return on plan assets excluding interest income	0	(191)	(191)
Remeasurements loss / (gain)	227	(191)	36
Effect of movements in exchange rates	(75)	71	(4)
Other			
Contributions paid:			
– Employers	0	(97)	(97)
– Plan participants	18	(18)	0
Benefits paid	(117)	117	0
Reclassification to liabilities held for sale	(25)	9	(16)
At 31 December 2016	² 3,145	(2,472)	673

¹ Thereof present value of funded defined-benefit obligation of CHF 3,045 million and present value of unfunded defined-benefit obligation of CHF 21 million

² Thereof present value of funded defined-benefit obligation of CHF 3,123 million and present value of unfunded defined-benefit obligation of CHF 20 million

As a result of a plan amendment of the Swiss plan (reduction of the conversion rate), the Group recognized a past service credit of CHF 41 million for the 2015 financial year.

The Group expects to pay CHF 62 million in contributions to defined-benefit pension plans in 2017.

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

million CHF	2016					2015				
	CH	US	UK	Rest of the world	Total	CH	US	UK	Rest of the world	Total
Present value of defined-benefit obligation	1,847	563	712	23	3,145	1,761	602	666	37	3,066
Fair value of plan assets	(1,516)	(375)	(572)	(9)	(2,472)	(1,409)	(401)	(550)	(12)	(2,372)
Total net defined-benefit liability	331	188	140	14	673	352	201	116	25	694

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

in %	2016			2015		
	CH	US	UK	CH	US	UK
Discount rate	0.69	3.99	2.72	0.80	4.27	3.85
Future salary increases	1.00	0.00	3.42	1.00	0.00	3.29
Future pension increases	n.a.	0.00	2.45	n.a.	0.00	2.33

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	2016			2015		
	CH	US	UK	CH	US	UK
Retiring at the end of the reporting period						
– Male	22.3	21.0	21.7	21.5	21.0	21.7
– Female	24.3	23.0	24.5	24.0	23.0	24.6
Retiring 20 years after the end of the reporting period						
– Male	24.2	23.0	23.5	23.2	23.0	23.4
– Female	26.2	24.0	26.4	25.7	25.0	26.3

¹ For the Pension Plan in Switzerland 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 2016		31 12 2015	
		Increase	Decrease	Increase	Decrease
Discount rate	0.25%	(119)	128	(109)	116
Future salary increases	0.25%	14	(14)	22	(21)
Life expectancy	1 year	89	(90)	76	(78)

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	2016	2015
Group	15.8	14.8
CH	14.8	13.8
UK	20.8	19.2
US	12.1	12.2

Plan assets comprise:

million CHF	2016				2015			
	Quoted	Unquoted	Total	%	Quoted	Unquoted	Total	%
Equity instruments	708	0	708	28	703	0	703	30
Debt instruments								
Investment-grade (AAA to BBB)	1,007	0	1,007		946	102	1,048	
Non-investment-grade (below BBB-)	39	0	39		40	0	40	
	1,046	0	1,046	42	986	102	1,088	46
Real-estate	112	78	190	8	109	75	184	8
Cash and cash equivalents	90	0	90	4	81	0	81	3
Other	420	18	438	18	311	5	316	13
Total	2,376	96	2,472	100%	2,190	182	2,372	100%

23.2 Post-Employment Medical Benefits

Lonza's post-employment medical benefit plans are not funded and are provided under defined-benefit plans. They consist of post-retirement healthcare benefits in the United States, such as drug coverage and other medical benefits, as well as limited death benefits.

The post-retirement healthcare plans are not open to new members and grandfathered participants must meet specific age / service requirements to participate.

The movements in the defined-benefit obligation are as follows:

million CHF	2016	2015
At 1 January	38	47
Included in profit or loss		
Current service cost	1	1
Past service credit	0	(6)
Interest expense	1	1
Included in other comprehensive income		
Remeasurements loss / (gain)		
Actuarial loss / (gain) arising from:		
– Demographic assumptions	(1)	(1)
– Financial assumptions	1	0
– Experience adjustment	1	(1)
Total remeasurements loss / (gain)	1	(2)
Effect of movements in exchange rates	1	0
Other		
Contributions paid by:		
– Plan participants	0	2
Benefits paid	(2)	(5)
At 31 December	40	38

In 2015 the plans were amended. As a result of changes of the cost-sharing structure, the Group recognized a past service credit of CHF 6 million.

The significant actuarial assumptions were as follows:

in %	2016	2015
Discount rate	3.99	4.27
Medical-cost trend rate	6.60	7.00

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

effect in million CHF		31 12 2016		31 12 2015	
		Increase	Decrease	Increase	Decrease
	Change in assumption				
Discount rate	0.25%	(1)	1	(1)	1
Medical-cost trend rate	1.00%	4	(4)	4	(3)
Life expectancy	1 year	1	(1)	1	(1)

For the medical plan the same mortality assumptions are applied as for the pension plans in the United States (see 23.1). In addition, the sensitivity analyses are based on the same methodology as for the pension plans.

Note 24 – Share-Based Payments AUDITED ✓

Equity-Settled Share Schemes

Employee Share Purchase Plan (ESPP)

In keeping with its vision and culture, Lonza has continuously encouraged employee participation in the company through stock ownership. In 2005 the former Employee Share Purchase Plan (ESPP) was updated. Under the 2005 plan, ESPP Plus, employees were given the opportunity – but not the obligation – to purchase Lonza shares in multiples of three with a price reduction of 30%. The shares purchased in this manner remain blocked for three years and are eligible for a dividend. After this blocking period, participants are entirely free to do as they wish with the shares. If participants keep their shares for a further two years in a blocked deposit, they will then – after this holding period is over – receive one additional free share for every three shares purchased. Due to cost-saving measures, the reissue of the share purchase plan was interrupted in 2013.

In 2014, the former Employee Share Purchase Plan was updated. During November of 2014, the ESPP was offered to the majority of active permanent employees (including Executive Committee members). Under the terms of the 2014 ESPP, employees were given the opportunity to purchase shares of Lonza stock at a price of CHF 77.99. This price represents a discount of 30% from the average weighted price of Lonza shares on the SIX Swiss Stock Exchange for the period from 24 November 2014 to 5 December 2014, which was CHF 111.42. The minimum investment amount is CHF 500 and the maximum CHF 3,000. All shares purchased under the 2014 ESPP are blocked from any disposal for a three-year period. During the blocking period, participants are the entitled beneficiaries of the shares and all attached rights. The ESPP 2014 does not include any additional free shares. This plan was not offered in 2015 and 2016.

The purchase conditions to participate in the ESPP Plus were as follows:

- 2011: ranging from 6 shares to 198 shares
- 2012: ranging from 9 shares to 318 shares
- 2014: ranging from CHF 500 to CHF 3,000

The ESPP is not part of an incentive program. The plan is intended as a long-term share-savings scheme to provide employees with an incentive to strengthen teamwork and personal commitment.

Details of Share Purchase Plans

	Purchased	Ratio	Granted share awards	Plan expiry date	Price at grant date CHF
ESPP 2011 Plus	74,526	3:1	24,842	30 05 2016	75.76
ESPP 2012 Plus	200,802	3:1	66,934	30 05 2017	38.34
ESPP 2014	22,300	n.a.	0	01 12 2017	77.99

Development Within 2016 of the ESPP Plus

	Share awards outstanding 01 01 2016	Share awards granted during 2016	Share awards forfeited during 2016	Shares vested during 2016	Share awards lapsed during 2016	Share awards outstanding 31 12 16
ESPP 2011 Plus	17,543	0	0	(14,799)	(2,744)	0
ESPP 2012 Plus	58,603	0	(14,017)	(220)	0	44,366
Total shares	76,146	0	(14,017)	(15,019)	(2,744)	44,366

Development Within 2015 of the ESPP Plus

	Share awards outstanding 01 01 2015	Share awards granted during 2015	Share awards forfeited during 2015	Shares vested during 2015	Share awards lapsed during 2015	Share awards outstanding 31 12 15
ESPP 2010 Plus	22,811	0	0	(15,237)	(7,574)	0
ESPP 2011 Plus	23,458	0	(5,911)	(4)	0	17,543
ESPP 2012 Plus	63,233	0	(4,630)	0	0	58,603
Total shares	109,502	0	(10,541)	(15,241)	(7,574)	76,146

No share awards were granted in 2016. The weighted average share price of the vested shares in 2016 was CHF 75.21 (2015: CHF 76.81). The outstanding share awards on 31 December 2016 had a weighted average share price of CHF 38.34 (2015: CHF 46.96) and a remaining weighted average contractual life of 5 months (2015: 14 months).

The fair value of shares granted were calculated using the market price at grant date. The discount on the purchase price of shares is expensed at the moment the employees acquire Lonza shares. The fair value of the free shares is expensed on a straight-line basis over the vesting period, based on estimates of shares that will eventually vest.

Fair Value at Grant Date

in CHF

ESPP 2011	1,505,624
ESPP 2011 discount	1,693,827
ESPP 2012	2,053,000
ESPP 2012 discount	2,309,625
ESPP 2014 discount	2,484,666

Long-Term Incentive (LTIP)

History and Participation

The LTIP is an equity-based plan introduced in 2006 for the Executive Committee and a segment of key employees (see [Section 4.6](#) – Long-Term Incentive (LTIP) in the Remuneration Report).

Objective

The LTIP has been designed to align the interests of participants with those of Lonza's shareholders and to serve as a retention tool. LTIP participants are eligible to receive a number of 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 registered shares of Lonza in the future. Depending on the level of the job, the target equity award grant is between 10% and 100% of the annual base salary. The grant is made at target and the payout level can be between 0% and 200%. The Executive Committee members, including the CEO, have a target of 100% of base salary with payout levels between 0% and 200% maximum. Any proration is applied against the entire length of the three-year performance period.

The LTIP plan design is determined at the beginning of the three-year performance period. For 2016 the plan design included minimum, target and stretch goals. The 2016 LTIP budget value for the Executive Committee was approved as submitted at the AGM 2016 and administered in accordance with this approval.

Vesting will depend on achievement of the performance conditions and cannot exceed the maximum amount of granted equity awards.

Restriction and Vesting

The central feature of the plan is that key employees will only receive title and ownership of the shares after a three-year vesting period and only if the performance metrics required for vesting are partially or fully met.

Vesting Targets

For the 2014 LTIP, the performance metrics were CORE EPS and CORE RONO with 50% weight for each measure.

For the 2015 and 2016 LTIP, the performance metrics are CORE EPS and CORE RONO 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 of Lonza with investors. The value of the LTIP will be ultimately driven by the share price at the time of payout, further linking the LTIP to the interests of the shareholders.

Overview of Vesting Conditions for LTIP

For the years 2015 and 2016, the vesting of up to 50% of the granted equity awards depends on growth of CORE EPS achieved during Lonza's three fiscal years and the vesting of up to 50% of the granted equity awards depends on growth of CORE RONO achieved during Lonza's three fiscal years.

Performance Metrics for CORE EPS Approved at AGM 2016 (LTIP 2016)

- The minimum threshold to be reached at year-end 2018 was determined by the NCC to be significantly higher than the CORE EPS achieved on 31 December 2015 (which was CHF 6.81). If this minimum threshold is not reached, the payout will be zero. If this threshold is reached, 50% of the equity awards granted under CORE EPS will vest.
- If the target is reached, 100% of the equity awards granted under CORE EPS will vest. CORE EPS is an internal, sensitive financial target which is not disclosed at this time.
- The maximum was determined to approximate 115% of the CORE EPS at target. If such a level of CORE EPS is reached, 200% of the equity awards granted under CORE EPS will vest.

Performance Metrics for CORE RONO A Approved at AGM 2016 (LTIP 2016)

- The minimum threshold to be reached at year-end 2018 was determined by the NCC to be significantly higher than the CORE RONO A achieved on 31 December 2015 (which was 16.4%). If this minimum threshold is not reached, the payout will be zero. If this threshold is reached, 50% of the equity awards granted under CORE RONO A will vest.
- If the target is reached, 100% of the equity awards granted under CORE RONO A will vest. CORE RONO A is an internal, sensitive financial target which is not disclosed at this time.
- The maximum was determined to approximate 117.5% of the CORE RONO A at target. If such a level of CORE RONO A is reached, 200% of the equity awards granted under CORE RONO A will vest.

Treatment of LTIP of 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 2014 and 2013

Performance under the 2013 LTIP exceeded the maximum for EPS generating a 100% payout on 50% of the total award. Performance under the 2013 LTIP achieved the maximum target for TSR generating a 100% payout on the remaining 50% of the total award. The total 2013 LTIP payout equals 100%.

Performance under the 2014 LTIP exceeded the target for CORE EPS generating a 100% payout on 50% of the total award. Performance under the 2014 LTIP exceeded the target for CORE RONO A generating a 100% payout on the remaining 50% of the total award. The total 2014 LTIP payout equals 100%.

Overview of Vesting Conditions for the LTIP

2014 LTIP

	Actual performance	Payout in %
CORE EPS (Earnings Per Share) ¹	CHF 8.15	100
CORE RONO A (Return on Net Operating Assets) ¹	20.97%	100
Total payout		100

¹ CORE results exclude exceptional items such as restructuring charges, impairments and amortization of acquisition-related intangible assets, which can differ from year to year.

Details of Long-Term Incentive Plans

	Grant date	Share price CHF	Granted equity awards	Fair value at grant date	Vesting date
LTIP 2013	01 02 2013	53.60	204,653	5,484,728	31 01 2016
LTIP 2014	01 02 2014	91.15	137,180	6,251,978	31 01 2017
LTIP 2015	01 02 2015	109.20	116,907	12,766,244	31 01 2018
LTIP 2016	01 02 2016	156.30	108,744	24,730,180	31 01 2019

Vesting Conditions at Grant Date

	Market price CHF	Granted equity awards	Fair value of equity awards	Expected EVA / EPS / RONOA at grant date	Probability minimum targets	Volatility employees	Total probability	Total cost at grant date CHF
LTIP 2013 TSR	53.60	102,327	26.80		100%	3%	97%	2,660,093
LTIP 2013 EPS	53.60	102,327	53.60	50%	100%	3%	97%	2,660,093
LTIP 2014 CORE RONOA	91.15	68,590	91.15	50%	100%	3%	97%	3,032,210
LTIP 2014 CORE EPS	91.15	68,590	91.15	50%	100%	3%	97%	3,032,210
LTIP 2015 CORE RONOA	109.20	58,453	109.20	100%	100%	3%	97%	6,191,576
LTIP 2015 CORE EPS	109.20	58,454	109.20	100%	100%	3%	97%	6,191,681
LTIP 2016 CORE RONOA	156.30	54,372	156.30	150%	150%	3%	97%	12,365,090
LTIP 2016 CORE EPS	156.30	54,372	156.30	150%	150%	3%	97%	12,365,090

Development within 2016 of the LTIP

	Equity awards outstanding 01 01 2016	Equity awards granted during 2016	Equity awards forfeited during 2016	Vested equity awards during 2016	Equity awards lapsed during 2016	Equity awards outstanding 31 12 2016
LTIP 2013	189,672	0	0	(183,985)	(5,687)	0
LTIP 2014	137,411	0	(12,731)	0	0	124,680
LTIP 2015	116,907	0	(1,998)	0	0	114,909
LTIP 2016	0	108,744	0	0	0	108,744
Total equity awards	443,990	108,744	(14,729)	(183,985)	(5,687)	348,333

Development within 2015 of the LTIP

	Equity awards outstanding 01 01 2015	Equity awards granted during 2015	Equity awards forfeited during 2015	Vested equity awards during 2015	Equity awards lapsed during 2015	Equity awards outstanding 31 12 2015
LTIP 2012	276,754	0	0	(222,677)	(54,077)	0
LTIP 2013	204,653	0	(14,981)	0	0	189,672
LTIP 2014	137,180	1,557	(1,326)	0	0	137,411
LTIP 2015	0	116,907	0	0	0	116,907
Total equity awards	618,587	118,464	(16,307)	(222,677)	(54,077)	443,990

The estimated fair value of the granted equity awards in 2016 was CHF 227.42 (2015: CHF 108.66). The weighted average share price of the vested shares in 2016 was CHF 53.60 (2015: CHF 49.69). The outstanding granted equity awards on 31 December 2016 had a weighted average share price of CHF 123.33 (2015: CHF 54.31) and a remaining weighted average contractual life of 12 months (2015: 11 months). 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.

Fair Value at Grant Date

CHF

LTIP 2013	5,484,728
LTIP 2014	6,251,978
LTIP 2015	12,766,244
LTIP 2016	24,730,180

Extended Short-Term Incentive Plan (E-STIP)

Relationship to STIP

For the years 2012, 2013 and 2014 the company provided the members of the Executive Committee and Senior Management with Short-Term Incentive Plans, of which two-thirds is paid in cash (Cash STIP) and one-third in restricted share units (RSUs) (E-STIP) which vest after three years. Performance metrics are defined for each financial year; achievement determines the payout of STIP. The performance metrics for the STIP (Cash STIP and E-STIP) are the same.

E-STIP

Targeted E-STIP amount as % of base salary	<ul style="list-style-type: none">– 26.7% for the Chief Executive Officer– 25% for other Executive Committee members– 10% to 20 % for Senior Management
E-STIP targets weighting	<ul style="list-style-type: none">– 50% CORE EBIT (Financial)– 15% Lonza Sales (Financial)– 15% Operational Free Cash Flow (Financial)– 20% Personal targets are linked back to the financial targets (10% weighting for CORE EBIT, 5% weighting for Sales and 5% weighting for Operational Free Cash Flow)
Maximum potential payout	Depending on the financial results achievement, the Cash STIP payout may range between 0% and 200% for the financial targets and 0% and 150% for personal targets. Total maximum payout opportunity is 190% (80% financial × 200% + 20% personal × 150% = 190%)

Alignment on Share Price

The value of the plan is strongly dependent on Lonza's future share price, thereby further reinforcing the link to shareholders' interests. The E-STIP is awarded in the form of RSUs, which are subject to a three-year vesting requirement.

Grant Timing

The grant of the RSUs under the E-STIP 2014 took place in April 2015 following shareholder approval at the AGM (E-STIP 2013 on 31 March 2014), on which date the number of RSUs was determined based on the closing stock price of the last business day in March. These RSUs vest after three years.

Dividend and Voting Rights

The E-STIP RSUs, do not qualify for dividends and voting rights until vested.

Treatment of E-STIP RSUs in Change of Control Situation

Under the outstanding E-STIP plan rules, if a change in control occurs, all unvested RSUs shall immediately vest and the granted price shall be the price at which the shares are sold in the transaction resulting in the change in control.

Non-Vested RSUs

	Grant date	Share price	Granted share units	Vesting date
E-STIP 2012	31 03 2013	61.60	41,405	31 03 2016
E-STIP 2013	31 03 2014	90.15	19,771	31 03 2017
E-STIP 2014	31 03 2015	121.50	20,418	31 03 2018

Development Within 2016 of E-STIP

	Share units outstanding 01 01 2016	Share units granted during 2016	Share units forfeited during 2016	Share units vested during 2016	Share units lapsed during 2016	Share units outstanding 31 12 2016
E-STIP 2012	28,445	0	0	(29,437)	992	0
E-STIP 2013	17,829	0	(380)	(530)	0	16,919
E-STIP 2014	19,718	0	(356)	(405)	0	18,957
Total	65,992	0	(736)	(30,372)	992	35,876

Development Within 2015 of E-STIP

	Share units outstanding 1 1 2015	Share units granted during 2015	Share units forfeited during 2015	Share units vested during 2015	Share units lapsed during 2015	Share units outstanding 31 12 2015
E-STIP 2011	32,001	0	0	(13,536)	(18,465)	0
E-STIP 2012	38,565	0	(9,121)	(999)	0	28,445
E-STIP 2013	19,250	0	0	(1,421)	0	17,829
E-STIP 2014	0	20,418	0	(700)	0	19,718
Total	89,816	20,418	(9,121)	(16,656)	(18,465)	65,992

No RSUs were granted in 2016. The estimated fair value of the RSUs 2014 granted in 2015 was CHF 121.50. The weighted average share price of the vested share unit in 2016 was CHF 62.90 (2015: CHF 54.41). The outstanding share units on 31 December 2016 had a weighted average share price of CHF 106.72 (2015: CHF 87.21) and a remaining weighted average contractual life of 9 months (2015: 13 months).

The fair value was calculated using the market price at grant date. The amounts for share units were expensed on a straight-line basis over the vesting period, based on estimates of share units that will eventually vest. The expected volatility was 3%.

Fair Value at Grant Date

CHF

E-STIP 2012	2,474,032
E-STIP 2013	1,728,885
E-STIP 2014	2,406,363

Compensation of the Board of Directors

Objective and Benchmarks

The NCC determined that they would again use benchmark data of Swiss companies (various sectors) that are comparable in type of business, complexity, size and global presence to Lonza in determining competitive Board of Directors' Compensation. Lonza's objective is to pay the members of the Board of Directors at the median of this benchmark group in accordance with their respective duties and responsibilities ¹.

¹ Actelion Ltd, ARYZTA AG, Barry Callebaut AG, Clariant AG, Emmi AG, Forbo Holding AG, Geberit AG, Georg Fisher AG, Givaudan SA, Logitech International S.A, OC Oerlikon Corporation AG, Panalpina Weltransport (Holding) AG, Sika AG, Sonova Holding AG, Sulzer Ltd, The Swatch Group SA

For the period from the Annual General Meeting (AGM) 2016 to the AGM 2017, the members of the Board of Directors receive fixed gross compensation for Board of Directors membership and additional compensation for committee chairperson and committee memberships as described below:

Compensation for Board of Directors AGM 2016 to AGM 2017 ²

CHF	Annual fee	Additional committee membership fee	Additional committee chairperson fee
Board of Directors Member	200,000	40,000	80,000
Chairman of the Board of Directors	450,000		

² Refer to Section 3.3 regarding total compensation (including national employer social contributions) provided to the Board of Directors in financial year 2016. The above table represents the period from AGM 2016 to AGM 2017 and does not include social contributions of the employer.

The compensation of the Chairman of the Board of Directors includes his remuneration as a member of the Innovation and Technology Committee of the Board of Directors.

The total compensation of the Committee chairpersons amounts to CHF 280,000 and includes the Committee membership fee.

Board of Directors' compensation for 2016 is paid quarterly; 50% of the compensation is paid in cash and 50% in performance shares. 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.

Development of Compensation for Board of Directors in 2016

Grant date	Total number of shares	Share price in CHF	Fair values of shares	Cash ¹ CHF	Total CHF	Blocked until
31 03 2016	1,930	160.98	310,690	311,250	621,940	31 03 2019
30 06 2016	2,149	158.38	340,359	341,250	681,609	30 06 2019
30 09 2016	1,847	184.14	340,107	341,250	681,357	30 09 2019
31 12 2016	1,937	175.48	339,905	341,250	681,155	31 12 2019
Total	7,863	169.28	1,331,061	1,335,000	2,666,061	

¹ Excluding social security and withholding tax.

The amount of CHF 2,666,061 was recognized as an expense in the year 2016.

Development of Compensation for Board of Directors in 2015

Grant date	Total number of shares	Share price CHF	Fair values of shares	Cash ¹ CHF	Total CHF	Blocked until
31 03 2015	2,600	122.08	317,408	311,250	628,658	31 03 2018
30 06 2015	2,316	126.96	294,039	311,250	605,289	30 06 2018
30 09 2015	2,409	128.86	310,424	311,250	621,674	31 09 2018
31 12 2015	1,939	160.32	310,860	311,250	622,110	31 12 2018
Total	9,264	133.07	1,232,731	1,245,000	2,477,731	

¹ Excluding social security and withholding tax.

The amount of CHF 2,477,731 was recognized as an expense in the year 2015.

Development of Compensation for Board of Directors in 2014

Grant date	Total number of shares	Share price CHF	Fair values of shares	Cash ¹ CHF	Total CHF	Blocked until
31 03 2014	3,442	89.98	309,711	275,000	584,711	31 03 2017
30 06 2014	3,576	96.22	344,083	311,250	655,333	30 06 2017
30 09 2014	2,966	114.92	340,853	311,250	652,103	30 09 2017
31 12 2014	3,076	111.28	342,297	311,250	653,547	31 12 2017
Total	13,060	102.37	1,336,944	1,208,750	2,545,694	

¹ Excluding social security and withholding tax.

The amount of CHF 2,545,694 was recognized as an expense in the year 2014.

Development of Compensation for Board of Directors in 2013

Grant date	Total number of shares	Share price CHF	Fair values of shares	Cash ¹ CHF	Total CHF	Blocked until
31 03 2013	8,146	61.33	499,594	165,000	664,594	31 03 2016
30 06 2013	4,221	69.96	295,301	262,500	557,801	30 06 2016
30 09 2013	3,961	74.30	294,302	262,500	556,802	30 09 2016
31 12 2013	3,688	83.98	309,718	275,000	584,718	31 12 2016
Total	20,016	69.89	1,398,915	965,000	2,363,915	

¹ Excluding social security and withholding tax.

The amount of CHF 2,363,915 was recognized as an expense in the year 2013.

Recognition in the Consolidated Financial Statements

All the equity-settled share-based payments had an impact on the 2016 "Profit before income taxes" amounting to an expense of CHF 28 million (2015: CHF 17 million).

Note 25 – Changes in Shares and Share Capital Movements AUDITED ✓

	31 12 2016	Change in year	31 12 2015	Change in year	31 12 2014
Total number of shares	52,920,140	0	52,920,140	0	52,920,140
Treasury shares					
Shares reserved for share purchase plan (ESPP)	0	0	0	(86,785)	86,785
Shares reserved for long-term incentive plan (LTIP)	0	0	0	(113,845)	113,845
Free shares	128,891	508,614	637,505	(67,493)	704,998
Total treasury shares	128,891	508,614	637,505	(268,123)	905,628
Total shares ranking for dividend at 31 December	52,791,249	(508,614)	52,282,635	268,123	52,014,512
Transferred shares between January and date of dividend payment of following year	n.a.		218,280		244,780
Total shares ranking for dividend at date of dividend payment	n.a.		52,500,915		52,259,292
Share capital movements					
Share capital in CHF	52,920,140	0	52,920,140	0	52,920,140

The share capital on 31 December 2016 and 2015 comprised 52,920,140 registered shares with a par value of CHF 1 each, amounting to CHF 52,920,140.

Contingent Capital

The share capital of Lonza Group Ltd may be increased through the issuance of a maximum of 5,029,860 fully paid-in registered shares with a par value CHF 1 each up to a maximum aggregate amount of CHF 5,029,860.

Authorized Capital ¹

The Board of Directors shall be authorized to increase, at any time until 8 April 2017, the share capital of Lonza Group Ltd through the issuance of a maximum of 5,000,000 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 5,000,000. 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 5,029,860. The details and conditions are set out in Articles 4^{bis} to 4^{quater} of the Company's [Articles of Association](#).

At 31 December 2016, Lonza Group Ltd had a fully paid-in registered capital of CHF 52,920,140 and a contingent capital of CHF 5,029,860.

Reserves in the amount of CHF 26,460,070 (2015: CHF 26,460,070) included in the financial statements of the parent company cannot be distributed.

¹ Lonza has successfully placed 5 million new shares (Authorized Capital), which were listed and admitted to trading on the SIX Swiss Exchange on 3 February 2017 (see [note 4.4](#) of the Financial Report) – Article 4^{ter} "Authorized Capital" of the Lonza Articles of Association was thereafter deleted.

Dividend

A dividend payment per share of CHF 2.75 (2015: CHF 2.50) is proposed to be made after the balance sheet date.

Note 26 – Earnings per Share AUDITED ✓

million CHF	2016	2015
Basic earnings per share		
Profit for the period (equity holders of the parent)	301	277
Weighted average number of outstanding shares	52,538,465	52,268,315
Basic earnings per share in CHF	5.73	5.30
Diluted earnings per share		
Profit for the period (equity holders of the parent)	301	277
– Impact from dilution	0	0
Diluted profit for the period	301	277
Weighted average number of outstanding shares	52,538,465	52,268,315
– Adjustments for dilutive share units and shares	327,407	424,924
Weighted average number of shares for diluted earnings per share	52,865,872	52,693,239
Diluted earnings per share in CHF	5.69	5.26
Dividends paid for the period	131	131
Dividends per share for the period in CHF	2.50	2.50
Dividends declared after the balance sheet date	159	131
Dividends per share declared after the balance sheet date in CHF	2.75	2.50

Issuance of Shares After Balance Sheet Date

Lonza Group Ltd has successfully placed 5 million new shares, which have been listed and are admitted to trading on the SIX Swiss Exchange on 3 February 2017 (see [note 4.4](#)).

The new shares will be entitled to dividend distributions for the financial year 2016 and are consequently included in the amount of dividends declared after the balance sheet date of CHF 159 million, as stated above.

Note 27 – Related Parties AUDITED ✓

Identity of Related Parties

The Group has a related-party relationship with associates, joint ventures (see [note 7](#)), pension and other post-retirement plans (see [note 23](#)) as well as with the Board of Directors and the members of the Executive Committee.

Transactions with Key Management Personnel

Board of Directors

In 2016 payments to acting members of the Board of Directors of Lonza Group Ltd totaled CHF 2.860 million¹ (2015: CHF 2.658 million¹), 46.53% (2015: 46.39%) of which was received in the form of shares. The Director's 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 granted shares is determined at the relevant market price at grant date. The shares are blocked for three years from the grant date and are eligible for a dividend. Members of the Board of Directors and their immediate relatives control 135,180 (2015: 129,815) or 0.26% (2015: 0.25%) 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 2016, CHF 7.726 million¹ (2015: CHF 7.227 million¹) in cash and additional benefits. Share-based compensation includes 18,872 LTIP shares granted (2015: 27,930 shares), the value of share-based STIP payments, equivalent to a total value of CHF 3.390 million (2015: CHF 3.807 million). No termination benefits were paid in 2015 or 2016.

The compensation for the Board of Directors and the Executive Committee was as follows:

million CHF	2016	2015
Short-term benefits ²	7.904	7.598
Post-employment benefits and other benefits ³	1.351	1.054
Share-based payments	4.721	5.040
Total	13.976	13.692

The remuneration is included in "Personnel expenses" (see [note 18](#)). For additional information, please refer to the 2016 Lonza Remuneration Report.

¹ Including social security and withholding tax

² Including incentive pay-out in March of the following year

³ Including contribution for social security and pension fund

28.1 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.

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. 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.

28.2 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 establishes an allowance for impairment that represents its estimate of incurred losses in respect of trade and other receivables. The allowance is based only on the specific loss component that relates to individually significant exposures. There is no collective impairment recognized.

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	2016	2015
Loans and receivables		
Trade receivables, net	612	538
Other receivables	73	58
Current advances	1	0
Non-current loans and advances	1	1
Cash and cash equivalents	274	277
Total loans and receivables	961	874
Financial assets at fair value		
Financial assets at fair value through profit or loss – held for trading:		
– Currency-related instruments ¹	12	2
– Interest-related instruments ¹	0	1
Total financial assets at fair value through profit or loss – held for trading	12	3
Financial assets effective for hedge accounting purposes:		
Commodity-related instruments ¹	4	0
Total financial assets effective for hedge accounting purposes	4	0
Total financial assets at fair value	16	3
Total	977	877

¹ included in 'Other receivables, prepaid expenses and accrued income' (see [note 11](#))

28.3 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 909 million (CHF 162 million used as of 31 December 2016), which are committed for up to two years and uncommitted credit lines of CHF 60 million (CHF 0 used as of 31 December 2016). In addition, Lonza has committed debt financing for the full Capsugel acquisition amount of USD 5.5 billion from Bank of America Merrill Lynch and UBS (see [note 4.4](#)).

The table below analyzes 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.

Year ended 31 December 2016 million CHF	Carrying amount	¹ Contractual cash flows	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 (2011–2018)	139	149	0	4	145	0	0	0
Straight bond (2012–2018)	200	208	0	4	204	0	0	0
Straight bond (2012–2022)	105	124	0	3	3	3	6	109
Straight bond (2013–2019)	299	316	5	0	5	306	0	0
Straight bond (2015–2020)	150	154	0	1	1	1	151	0
Straight bond (2015–2023)	175	190	0	2	2	2	4	180
Straight bond (2016–2021)	249	252	0	0	0	0	252	0
Syndicated loan (2011–2018)	99	100	0	0	100	0	0	0
German private placement	49	50	0	45	0	5	0	0
Other debt due to banks and financial institutions	68	68	68	0	0	0	0	0
Other debt due to others	321	361	22	169	3	3	40	124
Finance lease liabilities	6	11	0	0	0	1	2	8
Total debt	1,860	1,983	95	228	463	321	455	421
Trade payables	284	284	284	0	0	0	0	0
Other current liabilities ²	570	570	570	0	0	0	0	0
Contingent consideration	18	18	11	0	7	0	0	0
Total financial liabilities	2,732	2,855	960	228	470	321	455	421

¹ Including interest payments

² Including negative fair values of derivative financial instruments according to [note 28.5](#)

Year ended 31 December 2015 million CHF	Carrying amount	¹ Contractual cash flows	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 (2010–2016)	400	412	412	0	0	0	0	0
Straight bond (2011–2018)	139	153	0	4	4	145	0	0
Straight bond (2012–2018)	199	212	0	4	4	204	0	0
Straight bond (2012–2022)	105	127	0	3	3	3	6	112
Straight bond (2013–2019)	299	321	5	0	5	5	306	0
Straight bond (2015–2020)	150	155	0	1	1	1	152	0
Straight bond (2015–2023)	175	193	0	2	2	2	4	183
Syndicated loan (2011–2018)	0	0	0	0	0	0	0	0
German private placement	49	51	0	1	45	0	5	0
Other debt due to banks and financial institutions	80	83	8	75	0	0	0	0
Other debt due to others	337	378	48	4	165	3	39	119
Finance lease liabilities	5	10	0	0	0	0	2	8
Total debt	1,938	2,095	473	94	229	363	514	422
Trade payables	292	292	292	0	0	0	0	0
Other current liabilities ²	405	405	405	0	0	0	0	0
Total financial liabilities	2,635	2,792	1,170	94	229	363	514	422

¹ Including interest payments

² Including negative fair values of derivative financial instruments according to [note 28.5](#)

28.4 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 and commodities. 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's 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:

Currency million CHF	Sensitivity	Post-tax profit				Other comprehensive income			
		2016		2015		2016		2015	
		+	-	+	-	+	-	+	-
USD	+ / - 10%	0.2	(0.2)	1.8	(1.8)	36.0	(36.0)	(4.8)	4.8
EUR	+ / - 10%	(4.0)	4.0	(0.1)	0.1	(2.7)	2.7	(2.1)	2.2
GBP	+ / - 10%	1.3	(1.3)	3.2	(3.2)	0.0	0.0	0.0	0.0

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 2016								
million CHF	USD	GBP	EUR	SGD	DKK	AUD	Other	Total
Trade receivables, net	113	25	59	2	2	0	1	202
Other receivables, prepaid expenses and accrued income	0	8	14	2	0	0	0	24
Current advances and financial assets	5	0	0	0	0	0	0	5
Cash and cash equivalents	63	4	18	3	0	0	5	93
Non-current debt	(25)	0	0	0	0	0	0	(25)
Other non-current liabilities	0	0	0	(3)	0	0	0	(3)
Other current liabilities	(73)	(21)	(30)	(7)	0	0	(1)	(132)
Trade payables	(19)	(1)	(33)	(8)	0	0	(1)	(62)
Current debt	0	0	(37)	0	0	0	0	(37)
Gross balance sheet exposure	64	15	(9)	(11)	2	0	4	65
Currency-related instruments	(61)	1	(40)	0	0	0	0	(100)
Net exposure	3	16	(49)	(11)	2	0	4	(35)

Year ended 31 December 2015								
million CHF	USD	GBP	EUR	SGD	DKK	AUD	Other	Total
Trade receivables, net	89	45	62	1	2	3	8	210
Other receivables, prepaid expenses and accrued income	3	8	15	3	0	0	0	29
Cash and cash equivalents	24	4	23	1	1	3	7	63
Non-current debt	0	0	(37)	0	0	0	0	(37)
Other non-current liabilities	(28)	0	0	(3)	0	(1)	(1)	(33)
Other current liabilities	(30)	(9)	(7)	(10)	(2)	(1)	(3)	(62)
Trade payables	(20)	(1)	(35)	(12)	0	(3)	(5)	(76)
Current debt	(2)	0	0	0	0	0	0	(2)
Gross balance sheet exposure	36	47	21	(20)	1	1	6	92
Currency-related instruments	(14)	(7)	(22)	0	0	0	0	(43)
Net exposure	22	40	(1)	(20)	1	1	6	49

The following exchange rates were applied during the year:

Balance Sheet Year-End Rates

		2016	2015
EU	Euro	1.0734	1.0821
USA	Dollar	1.0189	0.9903
Great Britain	Pound sterling	1.2520	1.4684
Singapore	Singapore dollar	0.7042	0.7010
China	Renminbi	0.1467	0.1525

Income Statement Year-Average Rates

		2016	2015
EU	Euro	1.0901	1.0684
USA	Dollar	0.9852	0.9627
Great Britain	Pound sterling	1.3348	1.4712
Singapore	Singapore dollar	0.7136	0.7003
China	Renminbi	0.1483	0.1532

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	2016	2015
Net debt (note 14)	1,584	1,660
Net debt at fixed interest rates ¹	(1,374)	(1,595)
Interest risk exposure	210	65

¹ Including effects from cross-currency interest rate swaps

If the interest rates had increased /decreased by 1% in 2016, with all other variables held constant, post-tax profit would have been CHF 1.7 million lower / higher (2015: CHF 0.5 million lower / higher).

Commodity Price Risk

Lonza needs liquefied petroleum gas (LPG) as raw material for a cracker in Visp. Butane, naphtha or propane can be used as feedstock for the cracker. The raw material ultimately used depends on its availability and specifications. The annual demand is approximately 110,000 metric tons. In order to minimize the risk of higher raw material prices, Lonza hedges the commodity price risk via swaps. At 31 December 2016, if the propane / naphtha price had weakened / strengthened by 10%, with all other variables held constant, other comprehensive income would have been CHF 2 million lower / higher (2015: CHF 1 million lower / higher).

28.5 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 2016 and 2015. 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 – Held for Trading

million CHF	Contract or underlying principal amount		Positive fair values		Negative fair values		Total net fair values	
	2016	2015	2016	2015	2016	2015	2016	2015
Currency-related instruments								
– Forward foreign exchange rate contracts	111	39	0	0	(4)	(1)	(4)	(1)
– Currency swaps	597	529	5	2	(21)	(10)	(16)	(8)
– FX Options ¹	1,426	0	7	0	(9)	0	(2)	0
Total currency-related instruments	2,134	568	12	2	(34)	(11)	(22)	(9)
Interest-related instruments								
– Cross-currency interest rate swaps	444	444	0	1	(35)	(19)	(35)	(18)
Total interest-related instruments	444	444	0	1	(35)	(19)	(35)	(18)
Total financial instruments at fair value through profit or loss – held for trading	2,578	1,012	12	3	(69)	(30)	(57)	(27)

Financial Instruments Effective for Hedge-Accounting Purposes

million CHF	Contract or underlying principal amount		Positive fair values		Negative fair values		Total net fair values	
	2016	2015	2016	2015	2016	2015	2016	2015
Currency-related instruments								
– Forward foreign exchange rate contracts ²	481	85	0	0	(6)	(1)	(6)	(1)
– Deal contingent forward foreign exchange rate contracts ³	611	0	0	0	(12)	0	(12)	0
Total currency-related instruments	1,092	85	0	0	(18)	(1)	(18)	(1)
Commodity-related instruments								
– Naphtha swap	5	6	1	0	0	(1)	1	(1)
– Propane swap	12	12	3	0	0	(2)	3	(2)
Total commodity-related instruments	17	18	4	0	0	(3)	4	(3)
Total financial instruments effective for hedge-accounting purposes	1,109	103	4	0	(18)	(4)	(14)	(4)

¹ FX options equivalent to USD 1,400 million to manage the foreign exchange rate exposure related to the Capsugel acquisition (see [note 4.4](#))

² Includes forward contracts to buy USD 500 million to manage the foreign exchange rate exposure related to the Capsugel acquisition (see [note 4.4](#))

³ Forward to terminate in case transaction to acquire Capsugel (see [note 4.4](#)) will not close.

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	
	2016	2015	2016	2015
Forward foreign exchange rate contracts	0	0	(22)	(2)
Currency swaps	5	2	(21)	(10)
FX Options	7	0	(9)	0
Cross-currency interest rate swaps	0	1	(35)	(19)
Commodity-related instruments	4	0	0	(3)
Carrying value of derivative financial instruments	16	3	(87)	(34)
Derivatives subject to master netting agreements	(9)	(2)	9	2
Collateral arrangements ¹	0	0	0	0
Net amount	7	1	(78)	(32)

¹ The Group has not entered into any collateral arrangements

Financial Instruments by Type / Currency

million CHF	2016	2015
Forward foreign exchange rate contracts, currency swaps and FX options		
USD ¹	3,089	561
EUR	67	58
GBP	44	13
SGD	12	11
JPY	6	2
DKK	4	4
CZK	2	3
AUD	1	1
NZD	1	0
Total	3,226	653
Commodity swap	17	18
Cross-currency interest rate swap	444	444
Total financial instruments	3,687	1,115

¹ USD denominated forward foreign exchange contracts, currency swaps and FX options of CHF 2,547 to manage the foreign exchange rate exposure related to the Capsugel acquisition (see [note 4.4](#))

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 and for raw materials (butane / naphtha / propane).

28.6 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	2016				2015			
	Level 1	Level 2	Level 3	Total fair value	Level 1	Level 2	Level 3	Total fair value
Assets								
Derivative financial instruments	0	16	0	16	0	3	0	3
Liabilities								
Derivative financial instruments	0	(87)	0	(87)	0	(34)	0	(34)
Contingent consideration	0	0	(18)	(18)	0	0	0	0
Net assets and liabilities measured at fair value	0	(71)	(18)	(89)	0	(31)	0	(31)

In 2016 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

million CHF	2016	2015
At 1 January	0	0
Arising from business combinations	18	0
At 31 December	18	0

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 forecast gross profit and sales, which are the most significant unobservable inputs. The estimated fair value would increase if the forecast gross profits and sales were higher. At 31 December 2016 the total potential payments under contingent consideration arrangements could be up to CHF 30 million, primarily related to the InterHealth Nutraceuticals Inc acquisition (see [note 4.1](#)). There were no such arrangements in 2015.

28.7 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.

Carrying Amounts and Fair Values of Financial Instruments by Category

million CHF	Carrying amount		Fair value	
	31 12 2016	31 12 2015	31 12 2016	31 12 2015
Financial assets – available for sale				
Other investments – available for sale – carried at cost	13	7	13	7
Total financial assets – available for sale	13	7	13	7
Loans and receivables				
Trade receivables, net	612	538	612	538
Other receivables	73	58	73	58
Current advances	1	0	1	0
Non-current loans	1	1	1	1
Cash and cash equivalents	274	277	274	277
Total loans and receivables	961	874	961	874
Financial assets at fair value				
Financial assets at fair value through profit or loss – held for trading				
Currency-related instruments	12	2	12	2
Interest-related instruments	0	1	0	1
Total financial assets at fair value through profit or loss – held for trading	12	3	12	3
Financial assets effective for hedge accounting purposes				
Commodity-related instruments	4	0	4	0
Total financial assets effective for hedge accounting purposes	4	0	4	0
Total financial assets at fair value	16	3	16	3
Financial liabilities at amortized cost				
Debt:				
– Straight bonds ¹	1,317	1,467	1,365	1,529
– Other debt	543	471	543	471
Current liabilities	465	371	465	371
Trade payables	284	292	284	292
Total financial liabilities at amortized cost	2,609	2,601	2,657	2,663
Financial liabilities at fair value				
Financial liabilities at fair value through profit or loss – held for trading:				
Currency-related instruments	34	11	34	11
Interest-related instruments	35	19	35	19
Total financial liabilities at fair value through profit or loss – held for trading	69	30	69	30
Financial liabilities at fair value through profit or loss – designated				
Contingent consideration	18	0	18	0
Total financial liabilities at fair value through profit or loss – designated	18	0	18	0
Financial liabilities effective for hedge accounting purposes				
Currency-related instruments	18	1	18	1
Commodity-related instruments	0	3	0	3
Total financial liabilities effective for hedge accounting purposes	18	4	18	4
Total financial liabilities at fair value	105	34	105	34

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.

28.8 Capital Management

The Board's policy is to maintain a strong capital base so as to maintain 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 shareholders' equity of between 10% and 15%; in 2016, the return was 12.7% (2015: 10.8%). In comparison, the weighted average interest expense on interest-bearing borrowings (excluding liabilities with imputed interest) was 1.6% (2015: 2.1%).

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 29 – Share Ownership of the Members of the Board of Directors and the Executive Committee AUDITED ✓

Based on information available to Lonza, the members of the Board of Directors and parties closely associated with them¹ held, as of 31 December 2016, a total of 135,180 (2015: 129,815) registered shares in Lonza Group Ltd and controlled 0.26% (2015: 0.25%) 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.

The Company feels strongly that our Executive Committee and other senior managers should have a defined shareholding in Lonza to strengthen their alignment with our shareholders' interests. Starting in 2016 Lonza established minimum shareholding requirements for the Executive Committee and other senior managers based on level in the organization, and specified a five-year period to achieve these minimum requirements. Shareholding levels were reviewed annually beginning in January 2016. The NCC may periodically review the minimum shareholding requirements.

The members of the Executive Committee and parties closely associated with them held 67,335 (2015: 60,095) shares and controlled 0.13% (2015: 0.11%) of the share capital. The individual control rights are proportional to the holdings shown below.

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.

Share ownership of acting members of the Board of Directors and Executive Committee as of 31 December 2016:

Board of Directors

Lonza shares (numbers)	2016	2015
Rolf Soiron, Chairman	69,683	68,324
Patrick Aebischer	10,574	12,229
Werner Bauer	19,180	18,456
Thomas Ebeling	4,255	3,531
Jean-Daniel Gerber	12,840	11,995
Christoph Mäder	351	n.a.
Barbara Richmond	2,184	1,460
Margot Scheltema	7,561	6,716
Jürgen Steinemann	4,356	3,632
Antonio Trius	4,196	3,472

Executive Committee

Lonza shares (numbers)	2016	2015
Richard Ridinger, CEO	41,564	25,906
Sven Abend	1,373	0
Marc Funk	24,398	12,049
Toralf Haag	n.a.	15,736
Beat In-Albon	n.a.	6,404
Rodolfo Savitzky	0	n.a.

Note 30 – Enterprise Risk Management AUDITED ✓

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

Lonza's ERM process is performed in four steps: Step 1: Identification (through detailed risk discussions with risk owners), assessment and assignment of risks; Step 2: Consolidation, review and prioritization of risks; Step 3: Presentation of consolidated risk overview to the Executive Committee and Board of Directors; and Step 4: Update on risks and mitigation measures.

Lonza has identified six risk categories: (i) strategic risks, (ii) financial risks, (iii) corporate governance and reputation risks, (iv) political, legal and regulatory risks, (v) products and services risks and (vi) operational and performance risks.

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

- The probability of occurrence is assessed for the period until year-end 2019, with a risk range from unlikely to highly probable.
- Any potential negative effect of a risk is assessed according to its impact on the annual Group's EBIT, the Group's reputation and the Group's operations.

Through the above-described process, we have drawn up a Lonza-specific risk universe. Risks have been identified for each segment and for the corporate functions, and they are tracked if there is a year-on-year increase or decrease. These risks scenarios were presented to the Executive Committee and to the Board of Directors at their meetings in October 2016 with a follow-up of status of mitigation actions during the first quarter of 2017.

Financial risk management is disclosed in [note 28](#).

Note 31 – Events After the Balance Sheet Date

AUDITED ✓

Lonza Group Ltd has successfully placed 5 million new shares, which were listed and admitted to trading on the SIX Swiss Exchange on 3 February 2017 (see [note 4.4](#)).

On 27 February 2017 Lonza announced that it entered into a strategic partnership (in the form of a joint venture) with Sanofi to build and operate a large-scale mammalian cell culture facility for monoclonal antibody production in Visp, Switzerland. The initial investment will be around CHF 290 million (€ 270 million), to be split equally between each company.

The Consolidated Financial Statements for 2016 were approved for issue by the Board of Directors on 8 March 2017 and are subject to approval by the Annual General Meeting on 25 April 2017.

Note 32 – Principal Subsidiaries and Joint Ventures

AUDITED ✓

The principal subsidiaries and joint ventures are shown in the tables below:

Lonza Companies	Town/Country	Currency ¹	Share capital in 000	Holding direct	Holding indirect
Arch Chemicals Canada Inc.	Toronto CA	CAD	10,000		100%
Arch Chemicals Limited	Castleford GB	GBP	1,000		100%
Arch Chemicals Inc.	Allendale US	USD	0.1		² 100%
Arch Chemicals Receivables LLC	Wilmington US	USD	n.a.		100%
Arch Personal Care Products L.P.	South Plainfield US	USD	0.1		³ 100%
Arch Protection Chemicals Private Limited	Mumbai IN	INR	1,300		² 100%
Arch Quimica Argentina S.R.L.	Buenos Aires AR	ARS	9,911		100%
Arch Quimica Brasil Ltda	Salto BR	BRL	30,388		100%
Arch Quimica Colombia S.A.	Bogotá CO	COP	5,301		⁵ 97%
Arch Quimica S.A. de C.V	Naucalpan MX	MXN	109.25	² 28%	² 72%
Arch Timber Protection B.V.	Wijchen NL	EUR	27.3		100%
Arch Treatment Technologies Inc.	Atlanta US	USD	0.1		⁴ 100%
Arch UK Biocides Limited	Castleford GB	GBP	1,644		100%
Arch Water Products France S.A.S.	Amboise FR	EUR	460		100%
Arch Water Products South Africa (Proprietary) Limited	Kempton Park SA	ZAR	100		100%
Arch Wood Protection (Aust) Pty Limited	Trentham AU	AUD	0.08		⁴ 100%
Arch Wood Protection (M) Sdn. Bhd.	Kuala Lumpur MY	MYR	500		100%
Arch Wood Protection (NZ) Limited	Auckland NZ	NZD	6,100		100%
Arch Wood Protection Canada Corp.	Mississauga CA	CAD	0.1		⁴ 100%
Arch Wood Protection (SA) (Proprietary) Limited	Port Shepstone SA	ZAR	3		100%
Arch Wood Protection Inc.	Atlanta US	USD	0.1		⁴ 100%
Diacon Technologies Ltd	Vancouver CA	CAD	² 0.6		² 100%
	Waldshut-Tiengen				
Gewerbepark Hochrhein GmbH	DE	EUR	10,400		100%
Hickson Ltd	Castleford GB	GBP	108,161		100%
InterHealth Nutraceuticals Inc.	Benicia US	USD	15.2		100%
Lonza AG	Visp CH	CHF	60,000	100%	
Lonza America Inc.	Allendale US	USD	8	100%	
Lonza Australia Pty Ltd	Mt. Waverley AU	AUD	90		100%
Lonza Benelux BV	Breda NL	EUR	112		100%
Lonza Biologics Inc.	Portsmouth US	USD	1		100%
Lonza Biologics plc	Slough GB	GBP	14,500		100%
Lonza Biologics Porriño S.L.	Porriño ES	EUR	10,296		100%
Lonza Biologics Tuas Pte Ltd	Singapore SG	USD	25,000		100%
		SGD	172,000		
Lonza BioPharma AG ^B	Visp CH	CHF	550	100%	
Lonza Bioproducts AG	Basel CH	CHF	100	100%	
Lonza Bioscience SARL	Saint-Beauzire FR	EUR	8,849		100%
Lonza Bioscience Singapore Pte Ltd	Singapore SG	USD	1		100%
Lonza Biotec sro	Kouřim CZ	CZK	282,100		100%

Lonza Companies	Town/Country	Currency ¹	Share capital in 000	Holding direct	Holding indirect
Lonza Braine SA ⁷	Braine-l'Alleud BE	EUR	40,000		100%
Lonza (China) Investments Co. Ltd	Guangzhou CN	USD	84,000	100%	
Lonza Cologne GmbH	Cologne DE	EUR	1,502		100%
Lonza Copenhagen ApS	Vallensbaek Strand DK	DKK	150		100%
Lonza do Brasil Especialidades Quimicas Ltda.	São Paulo BR	BRL	² 18,387	² 99.9%	² 0.1%
Lonza Europe BV	Breda NL	EUR	20.5	² 32%	² 68%
Lonza Finance Limited	St. Helier Jersey GB	CHF	335	100%	
Lonza France Sàrl	Levallois-Perret FR	EUR	132		100%
Lonza Group GmbH	Waldshut-Tiengen DE	EUR	25	0.4%	99.6%
Lonza Group UK Limited	Slough GB	GBP	17,000		100%
Lonza Guangzhou Ltd	Guangzhou CN	USD	12,000		100%
Lonza Guangzhou Nansha Ltd	Guangzhou CN	USD	135,500		100%
Lonza Holding Singapore Pte Ltd	Singapore SG	USD	100,000		100%
Lonza Houston Inc.	Houston US	USD	1		100%
Lonza Inc.	Allendale US	USD	697		100%
Lonza India Private Ltd	Mumbai IN	INR	23,459		¹ 100%
Lonza Japan Ltd	Tokyo JP	JPY	200,000	100%	
Lonza Licences AG	Basel CH	CHF	100	100%	
Lonza Liyang Chemical Co. Ltd	Liyang CN	USD	3,000		100%
Lonza Luxembourg S.à r.l	Luxembourg LU	EUR	12	100%	
Lonza Microbial Control Asia Pacific Pte Ltd	Singapore SG	USD	183		100%
Lonza Milano S.r.l.	Treviglio IT	EUR	52		100%
Lonza Nanjing Ltd	Nanjing CN	USD	14,000		100%
Lonza Rockland Inc.	Rockland US	USD	0.1		100%
Lonza Sales AG	Basel CH	CHF	2,000	100%	
Lonza Shanghai International Trading Ltd	Shanghai CN	USD	200		100%
Lonza Swiss Finanz AG	Basel CH	CHF	100	100%	
Lonza Swiss Licences AG	Basel CH	CHF	100	100%	
Lonza Suzhou Ltd	Suzhou CN	USD	19		⁶ 100%
Lonza Verviers Sprl	Verviers BE	EUR	19		100%
Lonza Walkersville Inc.	Walkersville US	USD	1		100%
Lonza Wokingham Limited	Wokingham GB	GBP	1		100%
OOO Lonza Rus	Moscow RU	RUB	10		100%
TL Biopharmaceutical Ltd	Visp CH	CHF	1,000		50%
Triangle Research Labs, LLC	North Carolina US	USD	n.a.		100%
Zelam Holdings Ltd	New Plymouth NZ	NZD	1,000		100%
Zelam Ltd	New Plymouth NZ	NZD	1,000		100%

¹ Abbreviation of currencies in accordance with ISO standards.

² Rounded.

³ Limited partnership.

⁴ No par value or not provided by law.

⁵ 3% are held by individuals.

⁶ No shares issued; capital is registered.

⁷ Disposal in 2017.

⁸ Lonza BioPharma AG was merged into Lonza AG as of 1 January 2017 (entry into commercial registry 31 January 2017).

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 2016 and the consolidated income statement, 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 2016, 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 IESBA Code of Ethics for Professional Accountants, 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



Goodwill and acquired intangible assets impairment



Income taxes

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

Lonza'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:

- comprehensive and complex custom manufacturing agreements in the Pharma & Biotech segment, and
- linkage of certain of management's incentive compensation to annual revenue targets.

Due to current market forces, the relevance of long-term product supply agreements with Lonza's Pharma & Biotech customers continues to increase. Under these agreements Lonza constructs and launches new or reworked suites dedicated to client specific manufacturing, which are owned and operated by Lonza. Extending over multiple periods such agreements often combine milestone and upfront payments during a construction phase, the rendering of project management services and the delivery of goods. To a certain degree the identification of these different components as separable revenue streams as well as their relative fair value is subject to management's judgment and interpretation of the customer contract. This gives rise to the risk that revenue could be misstated due to the incorrect identification, separation and valuation of components resulting in an inappropriate timing of revenue recognition.

Lonza regularly publishes forecasted financial results. Performance targets embedded in management's short and long-term compensation incentive plans based on targeted results and achievement of such 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 forecasted results.

For further information on revenue recognition refer to the following:

- Note 1 Accounting principles
- Note 2 Operating segments

Our response

For significant new or amended customer manufacturing agreements in the Pharma & Biotech segment we assessed the appropriateness of the identification, separation and valuation of contract elements and the timing of revenue recognition by making our own independent assessment, with reference to the relevant accounting standards. Furthermore, we challenged and assessed the qualification of separable components of significant new contracts and their valuation with Lonza management.

As a response to the risk of fraud in revenue recognition, we performed substantive sample testing of revenue recorded during the year and focused on revenue transactions taking place before and after year-end as well as bill-and-hold transactions to determine that revenue was recognized in the correct period. We tested the accuracy of the sales recorded, based on inspection of customer acceptance certificates, shipping documents and delivery notes. Furthermore, we have assessed the appropriateness of management's response to indications of improper revenue recognition, tested manual journal entries on a sample basis and tested controls over the recording of revenue in the relevant IT systems.

We also assessed the adequacy of the revenue recognition disclosures contained in accounting principles and in the note addressing information about reportable segments by sector and country.



Goodwill and acquired intangible assets impairment

Key Audit Matter

As a result of historical business combinations the Group maintains significant amounts of goodwill and acquired intangible assets on the balance sheet (approximately 33% of total assets).

There is uncertainty in estimating the recoverable amount of goodwill and intangible assets, which principally arises from the inputs used in both forecasting and discounting future cash flows. A combination of the significance of the asset balances and the inherent uncertainty in the assumptions supporting the valuations of goodwill and intangible assets, means that an assessment of their carrying value is one of the key judgmental areas.

At the end of 2016, continued risk of impairment exists due to the following factors:

- Dependency on certain significant technologies and customers
- Potential difficulties in securing long-term profitable contracts
- Market demand and competition
- Failure to adapt and comply with regulatory matters

Our response

We evaluated the process by which managements' future cash flow forecasts were prepared, including testing the underlying calculations and reconciling them to the latest Board of Directors approved financial targets. We analyzed the Group's previous ability to forecast cash flows accurately and challenged the reasonableness of current forecasts by comparing key assumptions to historical results, economic and industry forecasts (external market assumptions) and internal planning data.

Furthermore we performed a sensitivity analysis around the key drivers of the cash flow forecasts, in particular discount rates and long term growth rates and discussed potential shifts in key drivers with management. We assessed how management incorporated the specific risk factors in their cash flow forecasts.

We assessed the appropriateness of the Group's valuation methodology applied and its derivation of discount rates by using our own valuation specialists. Having ascertained the extent of change in the assumptions that either individually or collectively would be required for the goodwill and intangible assets to be potentially impaired, we assessed the likelihood of such a movement in those key assumptions and the related disclosures of the sensitivity analyses.

For further information on goodwill and acquired intangible assets impairment refer to the following:

- Note 1 Accounting principles
- Note 5 Intangible assets and goodwill



Key Audit Matter

Lonza Group operates across a number of different tax jurisdictions (primarily Europe, the US and China) giving rise to a high level of 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 Lonza entities, transfer pricing arrangements relating to the Group's manufacturing and supply chain and the ownership of intellectual property rights.

The Group has recognized provisions against uncertain tax positions, the estimation of which is subject to management's judgement.

Judgment is also required in the measurement of other taxation assets and liabilities, in particular in relation to those that support the income tax provision and the recognition of deferred tax assets.

Our response

Our audit approach included the use of local tax specialists in all key jurisdictions to evaluate tax provisions and potential exposures for the year ended 31 December 2016. We challenged the Group's assumptions and judgments through our knowledge of the tax circumstances and local law, as well as, the assessment of relevant tax documentation.

We obtained explanations from management regarding the known uncertain tax positions and analyzed existing correspondence with taxation authorities to identify uncertain tax positions. We assessed the adequacy of management's taxation provisions by considering country specific direct tax risks, transfer-pricing risks, compliance risks and potential penalties and fines.

We challenged and evaluated the judgements made by management in assessing the quantification and likelihood of significant exposures and the level of liability required for specific cases.

In respect of deferred tax assets, we have considered the appropriateness of management's assumptions and estimates. We have assessed management's view of the likelihood of generating suitable future taxable profits to support the recognition of deferred tax assets, including a consideration of whether the operational plans of the Group support the related conclusions.

We also evaluated whether the income tax related items were appropriately disclosed in the consolidated financial statements.

For further information on goodwill and acquired intangible assets impairment refer to the following:

- Note 1 Accounting principles
- Note 21 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 to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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

Michael Blume
Licensed Audit Expert
Auditor in Charge

Florin Janine Krapp
Licensed Audit Expert

Zurich, 16 March 2017

Financial Statements of Lonza Group Ltd, Basel AUDITED ✓

[Balance Sheet Lonza Group Ltd, Basel](#)

[Income Statement Lonza Group Ltd, Basel](#)

[Notes to the Financial Statements Lonza Group Ltd, Basel](#)

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[Report of the Statutory Auditor](#)

Balance Sheet – Lonza Group Ltd, Basel AUDITED ✓

Assets ¹

CHF	Note	2016	2015
Current assets			
Cash and cash equivalents		9,123,135	114,849,217
Short term financial assets:			
– from subsidiaries and associates		16,553,500	187,436,735
Other short-term receivables:			
– from third parties		56,947	56,549
– from subsidiaries and associates		11,039,220	8,015,552
Prepaid expenses and accrued income:			
– from third parties		31,578,917	6,317,297
– from subsidiaries and associates		51,277,028	22,530,356
Total current assets		119,628,747	339,205,706
Non-current assets			
Long-term financial assets:			
– from subsidiaries and associates	2.2	1,310,663,541	1,028,768,838
Investments	2.1	1,731,612,237	1,732,090,237
Property, plant and equipment		480,446	321,677
Prepaid expenses and accrued income:			
– from third parties		8,075,000	–
Total non-current assets		3,050,831,224	2,761,180,752
Total assets		3,170,459,971	3,100,386,458

¹ At 31 December

Liabilities and Shareholders' Equity ¹

CHF	Note	2016	2015
Current liabilities			
Trade accounts payables:			
– from third parties	2.3	3,710,607	1,596,983
– from subsidiaries and associates		230,934	166,145
Short-term interest bearing liabilities:			
– from third parties	2.4	61,995,056	400,000,000
– from subsidiaries and associates		849,999,635	433,425,051
Short-term provisions:			
– from third parties		4,914,626	790,990
Accrued expenses and deferred income:			
– from third parties		144,530,339	60,252,160
– from subsidiaries and associates		2,359,728	3,046,433
Total current liabilities		1,067,740,925	899,277,762
Non-current liabilities			
Long-term interest bearing liabilities:			
– from third parties	2.5	100,471,250	–
– from subsidiaries and associates		5,538,259	185,421,820
Long-term provisions:			
– from third parties		256,499	346,342
Total non-current liabilities		106,266,008	185,768,162
Total liabilities		1,174,006,933	1,085,045,924
Shareholders' equity			
Share capital	2.6	52,920,140	52,920,140
Legal capital reserves:			
– Reserves from capital contributions	2.7	243,393,025	374,645,313
Legal retained earnings reserves:			
– General legal retained earnings	2.6	26,460,070	26,460,070
Voluntary retained earnings:			
– Available earnings:			
– Profit brought forward		1,639,126,780	1,517,771,183
– Profit for the year		44,768,760	94,071,700
Treasury shares		(10,215,737)	(50,527,872)
Total shareholders' equity		1,996,453,038	2,015,340,534
Total liabilities and shareholders' equity		3,170,459,971	3,100,386,458
Shareholders' equity as a percentage of total assets in %		63.0	65.0

¹ At 31 December

Income Statement – Lonza Group Ltd, Basel

AUDITED ✓

CHF	Note	2016	2015
Income			
Dividend income		34,509,237	67,843,041
Royalties income		103,494,862	81,701,673
Other financial income	2.9	25,232,322	21,791,378
Other operating income		1,199,302	1,084,933
Total income		164,435,723	172,421,025
Expenses			
Other financial expenses	2.10	42,849,149	23,930,727
Personnel expenses		40,716,256	39,006,047
Other operating expenses	2.11	31,833,372	9,004,507
Impairment losses on investments		478,000	6,531,747
Depreciation on equipment		212,690	188,645
Direct taxes		3,577,496	(312,348)
Total expenses		119,666,963	78,349,325
Profit for the year		44,768,760	94,071,700

Notes to the Financial Statements – Lonza Group Ltd, Basel AUDITED ✓

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. Loans granted in foreign currencies are translated at the rate as of 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 an 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 personnel expenses.

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 principals' maturity period. Premiums are recognized as accrued expenses and amortized on a straight-line basis over the principals' maturity period.

1.6 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 2016. For indirect principal subsidiaries, please see the list in [Note 32](#).

Direct subsidiaries	Place	Capital in 1,000		Share in capital and voting rights in %	
		31.12.2016	31.12.2015	31.12.2016	31.12.2015
Arch Quimica, S.A. de C.V.	Mexico, MX	MXN 109	MXN 109	28%	28%
Lonza AG	Visp, CH	CHF 60,000	CHF 60,000	100%	100%
Lonza America Inc.	Allendale, US	USD 8	USD 8	100%	100%
Lonza BioPharma AG ¹	Visp, CH	CHF 550	CHF 550	100%	100%
Lonza Bioproducts AG	Basel, CH	CHF 100	CHF 100	100%	100%
Lonza do Brasil Especialidades Quimicas Ltda.	Sao Paulo, BR	BRL 18,387	BRL 18,387	99.9%	99.9%
Lonza (China) Investments Co. Ltd	Guangzhou, CN	USD 75,500	USD 75,500	100%	100%
Lonza Europe BV	Breda, NL	EUR 21	EUR 21	68%	68%
Lonza Finance Limited	St. Helier, Jersey, GB	CHF 335	CHF 335	100%	100%
Lonza Japan Ltd	Tokyo, JP	JPY 200,000	JPY 200,000	100%	100%
Lonza Licences AG	Basel, CH	CHF 100	CHF 100	100%	100%
Lonza Luxembourg S.à r.l.	Luxembourg, LU	EUR 12	n.a.	100%	n.a.
Lonza Sales AG	Basel, CH	CHF 2,000	CHF 2,000	100%	100%
Lonza Swiss Finanz AG	Basel, CH	CHF 100	CHF 100	100%	100%
Lonza Swiss Licences AG	Basel, CH	CHF 100	CHF 100	100%	100%
International School of Basel AG	Reinach, CH	CHF 20,525	CHF 20,525	1.6%	1.6%

¹ Lonza BioPharma AG was merged into Lonza AG as of 1 January 2017 (entry into commercial registry 31 January 2017).

An impairment loss of CHF 478,000 was recognized in financial year 2016 (2015: CHF 6,531,747) for Lonza do Brasil Especialidades Quimicas Ltda.

2.2 Financial Assets

Lonza Group Ltd had issued subordination agreements of CHF 170 million (2015: CHF 170 million) on loans to subsidiaries and associates.

2.3 Trade Accounts Payables

Trade accounts payables include liabilities to personnel welfare institutions of CHF 846,464 at 31 December 2016 (2015: CHF 193,109).

2.4 Short-Term Interest-Bearing Liabilities

in CHF	31.12.2016	31.12.2015
Bonds due within 1 year	0	400,000,000
Bank loans	61,995,056	0

2.5 Long-Term Interest-Bearing Liabilities

in CHF	31.12.2016	31.12.2015
Bank loans	100,471,250	0

2.6 Share Capital, Authorized and Contingent Capital

The share capital on 31 December 2016 and 2015 comprised 52,920,140 registered shares with a par value of CHF 1 each, amounting to CHF 52,920,140.

Contingent Capital: The share capital of Lonza Group Ltd may be increased through the issuance of a maximum of 5,029,860 fully paid-in registered shares with a par value CHF 1 each up to a maximum aggregate amount of CHF 5,029,860.

Authorized Capital¹: The Board of Directors shall be authorized to increase, at any time until 8 April 2017, the share capital of Lonza Group Ltd through the issuance of a maximum of 5,000,000 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 5,000,000. 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 5,029,860. The details and conditions are set out in Articles 4^{bis} to 4^{quater} of the Company's Articles of Association.

At 31 December 2016, Lonza Group Ltd had a fully paid-in registered capital of CHF 52,920,140 and a contingent capital of CHF 5,029,860.

Reserves in the amount of CHF 26,460,070 (2015: CHF 26,460,070) included in the financial statements of the parent company cannot be distributed.

¹ Lonza has successfully placed 5 million new shares (Authorized Capital), which were listed and admitted to trading on the SIX Swiss Exchange on 3 February 2017 (see [note 4.4](#) of the Financial Report) – Article 4^{ter} "Authorized Capital" of the Lonza Articles of Association was thereafter deleted.

2.7 Reserves from Capital Contributions

In the context of the Corporate Taxation Reform II in Switzerland, the capital contribution principle was implemented with effect from 1 January 2011. The reserves from capital contributions established from 1 January 1997 to 31 December 2010 which qualify for the capital contribution principle of CHF 839,727,980 were approved by the Swiss Federal Tax Authority on 6 December 2011. The amount of CHF 747,926,528 was reclassified from "Available earnings brought forward" to "Reserves from capital contributions" as per 31 December 2011 to reflect the approved amount as "Reserves from capital contributions". As of 31 December 2016 the reserves from capital contributions amounted to CHF 243,393,025 (31 December 2015: CHF 374,645,313).

2.8 Treasury Shares

	Total shares	Average rate in CHF	Number of transactions
Treasury shares at 01.01.2015, weighted average price	905,628	84.63	
Acquisitions 2015	1,855	110.94	5
Distribution to board members	(10,401)	121.54	4
Distribution to E-STIP share plans	(16,656)	125.61	5
Distribution to LTIP share plans	(222,677)	100.08	3
Distribution to ESPP share plans	(15,354)	128.66	5
Distribution to other share plans	(4,890)	109.20	1
Treasury shares at 31.12.2015, weighted average price	637,505	79.26	
Acquisitions 2016	0	0.00	0
Distribution to board members	(7,865)	165.55	4
Distribution to E-STIP share plans	(30,372)	162.75	2
Distribution to LTIP share plans	(183,985)	156.30	1
Distribution to ESPP share plans	(15,019)	170.50	6
Distribution to other share plans	(1,373)	162.70	1
Sale Treasury shares	(270,000)	180.31	3
Treasury shares at 31.12.2016, weighted average price	128,891	79.26	

2.9 Other Financial Income

Other financial income in 2016 includes net exchange rate gains of CHF 0 (2015: CHF 5,264,468) and interest income from loans to subsidiaries and associates of CHF 16,454,499 (2015: CHF 13,369,342).

2.10 Other Financial Expenses

CHF	2016	2015
Bank interest and fees	4,015,518	4,130,671
Interest on bonds	5,066,667	12,000,000
Interest on deposits subsidiaries	4,873,153	5,932,265
Amortization of discounts and issue costs	1,491,304	1,867,791
Premium paid on finance instruments	9,563,203	–
Net exchange rate loss	17,839,304	–
Total financial expenses	42,849,149	23,930,727

2.11 Other Operating Expenses

CHF	2016	2015
Consulting expenses	7,834,312	6,152,133
Administrative expenses	3,250,738	2,595,753
Other operating expenses	20,748,322	256,621
Total other operating expenses	31,833,372	9,004,507

Other operating expenses include transaction-related costs incurred for acquisition projects.

Note 3 – Other Information

3.1 Full-Time Equivalents

At 31 December 2016, Lonza Group Ltd had 61 employees (2015: 47).

3.2 Contingent Liabilities, Guarantees and Pledges

At 31 December 2016, indemnity liabilities, guarantees and pledges in favor of third parties totaled CHF 1,517,927,309 (2015: CHF 1,263,697,474). 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 that group.

3.3 Majors Shareholders

In accordance with Art. 663c of the Swiss Code of Obligations: See 1.2. Significant Shareholders in the [Group Structure and Shareholder section](#) of 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 29](#) in the Consolidated Financial Statements and [Remuneration Report](#).

3.5 Shares for Members of the Board and Employees

According to the share-based payments (see [note 24](#)), Lonza Group Ltd allocates treasury shares as follows:

	2016		2015	
	Number of shares	Value in CHF	Number of shares	Value in CHF
Allocated to members of the Board of Directors	7,865	1,302,017	10,401	1,264,168
Allocated to members of the Executive Committee	11,657	1,821,989	21,056	2,330,336
Allocated to other employees	12,351	1,930,461	10,820	1,200,941
Total	31,873	5,054,467	42,277	4,795,445

In 2016 Lonza Group Ltd employed two members of the Executive Committee (2015: 2).

Significant Events After the Balance Sheet Date

Lonza Group Ltd has successfully placed 5.0 million new shares by way of an accelerated bookbuilding procedure with selected investors in Switzerland (private placement) and outside of Switzerland to institutional investors and qualified institutional buyers.

The shares were placed at CHF 173.00 per new share and the gross proceeds from the placement amount are equal to CHF 865 million. The new shares were listed and admitted to trading on the SIX Swiss Exchange on 3 February 2017. Payment and settlement occurred on the same date.

Proposal of the Board of Directors AUDITED ✓

Concerning the Appropriation of Available Earnings and Reserve from Capital Contributions

CHF	2016
Available earnings brought forward ¹	1,639,126,780
Profit for the year	44,768,760
Available earnings at the disposal of the Annual General Meeting	1,683,895,540
Available earnings carry-forward	1,683,895,540

CHF	2016
Legal capital reserves qualified as reserves from capital contributions	243,393,025
Reserves from capital contributions	243,393,025
Payment of a dividend (out of reserves from capital contributions) in 2016 of CHF 2.75 (2015: CHF 2.50) per share on the share capital eligible for dividend of CHF 57,901,832 (2015: CHF 52,500,915)	(159,230,038)
Available reserves from capital contributions carry-forward	84,162,987

¹ Includes the gain of sale of Treasury shares CHF 27,283,897

If the General Annual Meeting approves the above proposal from the Board of Directors, the dividend of CHF 2.75 per registered share, net of withholding tax (as per Article 5 Abs 1^{bis} VStG), will be paid as of 3 May 2017.

Basel, 8 March 2017

Rolf Soiron

Chairman of the Board of Directors

Richard Ridinger

Chief Executive Officer

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 2016, 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 2016 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

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 to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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

Michael Blume
Licensed Audit Expert
Auditor in Charge

Florin Janine Krapp
Licensed Audit Expert

Zurich, 16 March 2017

Supplementary Financial Information

[Free Cash Flow](#)

[CORE Results](#)

[Statement of Value Added](#)

Free Cash Flow

The following is a summary of the free cash flow, using Lonza's definition. It includes earnings before interest, taxes and depreciation (EBITDA) and subtracts / adds the increase / decrease of operating net working capital, subtracts capital expenditures, acquisitions and adds disposal of fixed assets and subsidiaries as well as adding changes of other long-term operating assets / liabilities. This key measure is the same as reported monthly to the Executive Committee.

million CHF	2016	2015
EBITDA	848	780
Change of operating net working capital	78	139
Capital expenditures in tangible and intangible assets	(366)	(264)
Disposal of tangible and intangible assets	10	8
Change of other assets and liabilities	68	30
Free cash flow (before acquisitions / disposals)	638	693
Acquisition of subsidiaries	(230)	(30)
Disposal of subsidiaries	0	4
Free cash flow	408	667

CORE Results

Definition

Lonza believes that disclosing CORE results for the Group's performance enhances the financial markets' understanding of our company because the CORE results enable better comparison across years.

Therefore, the CORE results exclude exceptional items such as restructuring charges, acquisition-related costs, environmental-remediation costs, impairments and amortization of acquisition-related intangible assets, which can differ significantly from year to year. For this same reason, Lonza uses these CORE results in addition to IFRS as important factors in internally assessing the Group's performance.

Reconciliation of IFRS Results to CORE Results 2016

million CHF	IFRS results	Amortization of intangible assets from acquisitions	Impairments	Reversal of impairments	Restructuring costs / income	Other ³	Results from associates	CORE results ¹
Sales	4,132	0	0	0	0	0	0	4,132
Cost of goods sold	(2,731)	0	15	(2)	12	29	0	(2,677)
Gross profit	1,401	0	15	(2)	12	29	0	1,455
Marketing and distribution	(281)	0	0	0	0	0	0	(281)
Research and development	(84)	0	0	0	0	0	0	(84)
Administration and general overheads	(478)	40	0	0	2	13	0	(423)
Other operating income	32	0	0	0	0	0	0	32
Other operating expenses	(104)	0	42	0	13	1	0	(48)
Result from operating activities (EBIT)	486	40	57	(2)	27	43	0	651
Financial income	2	0	0	0	0	0	0	2
Financial expenses	(114)	0	0	0	0	10	0	(104)
Net financing costs	(112)	0	0	0	0	10	0	(102)
Share of loss of associates / joint ventures	(1)	0	0	0	0	0	1	0
Profit before income taxes	373	40	57	(2)	27	53	1	549
Income taxes ²	(72)	(8)	(11)	0	(5)	(10)	0	(106)
Profit for the period, attributable to the equity holders of the parent	301	32	46	(2)	22	43	1	443
Number of shares basic	52,538,465							52,538,465
Number of shares diluted	52,865,872							52,865,872
Basic earnings per share	5.73							8.43
Diluted earnings per share	5.69							8.38

¹In the CORE results for the items "Result from operating activities (EBIT)", "Profit for the period" and "Earnings per share", the impact of amortization of acquisition-related intangible assets, impairment and reversal of impairment of assets, results from associates and other special charges / income from restructuring, acquisition and environmental remediation are eliminated.

²Tax impact calculated based on average Group tax rate.

³"Other" comprises expenses for additional environmental provisions and acquisition-related costs.

Reconciliation of IFRS Results to CORE Results 2015

million CHF	IFRS results	Amortization of intangible assets from acquisitions	Impairments	Reversal of impairments	Restructuring costs / income	Other ³	Results from associates	CORE results ¹
Sales	3,803	0	0	0	0	0	0	3,803
Cost of goods sold	(2,704)	0	53	(1)	9	1	0	(2,642)
Gross profit	1,099	0	53	(1)	9	1	0	1,161
Marketing and distribution	(239)	0	0	0	0	(2)	0	(241)
Research and development	(103)	0	0	0	0	(1)	0	(104)
Administration and general overheads	(313)	31	0	0	0	(8)	0	(290)
Other operating income	55	0	0	0	(1)	0	0	54
Other operating expenses	(71)	0	0	0	4	11	0	(56)
Result from operating activities (EBIT)	428	31	53	(1)	12	1	0	524
Financial income	4	0	0	0	0	0	0	4
Financial expenses	(89)	0	0	0	0	0	0	(89)
Net financing costs	(85)	0	0	0	0	0	0	(85)
Share of loss of associates / joint ventures	(2)	0	0	0	0	0	2	0
Profit before income taxes	341	31	53	(1)	12	1	2	439
Income taxes ²	(64)	(6)	(10)	0	(3)	0	0	(83)
Profit for the period, attributable to the equity holders of the parent	277	25	43	(1)	9	1	2	356
Number of shares basic	52,268,315							52,268,315
Number of shares diluted	52,693,239							52,693,239
Basic earnings per share	5.30							6.81
Diluted earnings per share	5.26							6.76

¹In the CORE results for the items: "Result from operating activities (EBIT)", "Profit for the period" and "Earnings per share", the impact of amortization of acquisition-related intangible assets, impairment and reversal of impairment of assets, results from associates and other special charges / income from restructuring, acquisition and environmental remediation are eliminated.

²Tax impact calculated based on average Group tax rate.

³"Other" primarily includes the favorable impact from the IAS19 past service credit of the Swiss pension plan of CHF 41 million, as well as expenses related to the set-up of additional provisions.

Statement of Value Added

	Note ¹	2016		2015	
		million CHF	%	million CHF	%
Origin of value added					
Income from production		4,152		3,840	
Dividend earned		0		0	
Total income		4,152	100.0	3,840	100.0
Services bought from third parties					
Material costs	17	(1,386)		(1,396)	
Energy costs	17	(69)		(75)	
Other operating expenses excl. capital taxes		(636)		(578)	
Gross value added		2,061		1,791	
Depreciation on property, plant and equipment as well as amortization on intangibles, impairment / reversal of impairment	5, 6	(362)		(352)	
Income from application of the equity method	7	(1)		(2)	
Total net value added		1,698	40.9	1,437	37.4
Distribution of value added					
To staff:					
– Wages and salaries	18	898		778	
– Pensions	18	45		8	
– Other social security contributions	18	188		166	
– Other personnel expenses	18	70		43	
Total personnel cost		1,201	70.7	995	69.2
To public authorities:					
– Income and capital taxes	21	84	4.9	80	5.6
To lenders:					
– Financial expenses net	20.1, 20.2	112	6.6	85	5.9
To shareholders:					
– Dividends paid	26	131	7.7	131	9.1
To the company:					
– Profit for the period		301		277	
– Dividends paid	26	(131)	10.0	(131)	10.2
Total		1,698	100.0	1,437	100.0
Distribution of value added per employee					
Wages and salaries		89,989	CHF	79,242	CHF
Pensions		4,509		815	
Other social security contributions		18,840		16,907	
Other personnel expenses		7,015		4,380	
Total per employee		120,353		101,344	

¹See the accompanying notes to the Consolidated Financial Statements.

Remuneration Report

This Remuneration Report provides a comprehensive overview of Lonza's compensation philosophy, principles and components. The report presents, in accordance with the applicable SIX Swiss Exchange regulations and reporting standards, the structure, governance and details of Board of Directors and Executive Committee members' compensation.

[Compensation and Performance Overview 2016](#)

[Compensation-Setting Process](#)

[Compensation Components](#)

[Compensation of the Board of Directors](#)

[Compensation of the Executive Committee](#)

[Share Ownership of the Members of the Board of Directors and the Executive Committee](#)

[Report of the Statutory Auditor](#)



Compensation and Performance Overview 2016

Lonza's compensation philosophy is designed to attract and retain talent through competitive compensation programs. Lonza's 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 Lonza; results are measured based on achievement of specific goals that are aligned with the short-term and long-term objectives. Our performance goals are selected to achieve a balance between desired short-term and long-term outcomes. In this way, we encourage strategic decisions for competitive advantage and discourage executives from taking unnecessary or excessive risks that would threaten the reputation or sustainability of the Company.

For 2016 Lonza's overall financial performance vs. short-term incentive plan (STIP) targets was as follows:

2016 STIP Payout ¹: Financial Targets ²

million CHF	Actual performance in 2016	Target weighting in %	Achieved in %	Proposed 2016 payout % (weighted)
CORE EBIT	635.9	50.0	200.00	100.00
Sales (at target FX rates)	3,979.5	15.0	116.14	17.42
Operational cash flow	626.8	15.0	154.26	23.14

¹ See [Section 4.3 – Performance-Related vs. Fixed Compensation](#)

² Financial targets account for 80% of the total STIP weighting; individual performance accounts for the remaining 20% weight. For Executive Committee members, the overall target achievement was 2016: 174.08% (2015: 117.34%).

Lonza's overall financial performance in 2016 vs. long-term incentive plan (LTIP) targets for 2014 was determined by the Nomination and Compensation Committee (NCC) to approximate the financial performance required to meet Lonza's challenging strategic goals and support Lonza's three-year plan. The 2014 LTIP performance was as follows (plan vested on 31 January 2017):

2014 LTIP Financial Performance ³

	Actual performance	Payout in %
CORE EPS (Earnings Per Share)	CHF 8.15	100
CORE RONOA (Return on Net Operating Assets)	20.97%	100

³ Three-year cycle completed 31 December 2016. See [Section 4.6 – Long-Term Incentive \(LTIP\)](#) for more details.

As illustrated above, Lonza's financial performance is benefiting from the measurable progress that our teams are making by implementing strategic and transformational initiatives. Lonza's compensation programs closely align the short- and long-term targets of the company and the remuneration of our executives. We have seen outstanding financial performance in 2016, which allowed us to achieve and, in some cases, surpass our short-term incentive targets. We are continuing to see the benefits of the longer-term initiatives with a 2014 LTIP payout.

The Company feels strongly that our Executive Committee and other senior managers should have a defined shareholding in Lonza to strengthen their alignment with our shareholders' interests. Starting in 2016 we therefore established minimum shareholding requirements for the Executive Committee and other senior managers based on level in the organization and specified a five-year period to achieve these minimum requirements⁴. Shareholding levels are reviewed annually beginning in January 2016.

⁴ See Section 5 – Minimum Shareholding Requirements

1 – Compensation-Setting Process

1.1 Rules in the Articles of Association Relating to Remuneration

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).

1.2 Responsibilities of Company Bodies Relating to Remuneration

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 the remuneration for the members of the Board of Directors in accordance with the Articles of Association, subject to approval of the compensation of the Board of Directors by the Shareholders' Meeting pursuant to 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.

Nomination and Compensation Committee

The Nomination and Compensation Committee (NCC) has the following roles and responsibilities as outlined in the [Nomination and Compensation Committee 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;
4. To review and approve the objectives relevant to the CEO's compensation, to evaluate the performance on a regular basis and to determine the CEO's remuneration based on performance, subject to approval of the compensation of the Executive Committee by the Shareholders' Meeting pursuant to the Articles of Association;
5. To review and approve the remuneration proposals for members of the Executive Committee subject to approval by the Shareholders' Meeting pursuant to the Articles of Association;
6. 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;
7. To support the Board of Directors in preparing the remuneration report;
8. To inform the Board of Directors about compensation policies and programs as well as benchmark compensation of key peer companies; and
9. To inform the Board of Directors about the terms of employment for the members of the Executive Committee, based on the proposal of the NCC.

The NCC continuously reviews the aspects of executive compensation and compliance with good governance standards. During this year's review, Lonza considered third-party benchmark data, feedback from shareholders, members of the investment community, policy recommendations provided by institutional shareholder advisory organizations and the Swiss Ordinance Against Excessive Compensation for Stock-Exchange-Listed Companies.

The Chief Human Resources Officer (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. The CHRO acts as secretary to the NCC and attends all NCC meetings.

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](#).

1.3 Nomination and Compensation Committee and Board of Directors Meetings

The 2016 meetings of the NCC and the Board of Directors relating to compensation took place in January, February, April, July, October and December. A meeting dealing with 2016 compensation matters was held in January 2017.

At these meetings the NCC and/or the Board of Directors finalized:

- Plan provisions, grants, financial targets and target achievements for the STIP and LTIP plans;
- Progress report outlining interim ownership guidelines achievement for the Executive Committee;
- Recommendations relating to compensation motions to be submitted to the Annual General Meeting.

The NCC held six meetings in 2016. All members of the NCC participated in all meetings, with the exception of two meetings where one member was excused from participating. The NCC informs the Board of Directors on a regular basis about its activities and decisions. The discussions and the decisions of the Board of Directors and the NCC regarding compensation of the members of the Executive Committee are resolved in the absence of the affected members of the Executive Committee. All members of the Board of Directors are non-executive members. All members of the Board of Directors took part and voted at its meetings regarding compensation matters.

1.4 External Advisers and Benchmarks

As part of the ongoing commitment to review the competitive environment for 2016 compensation, Lonza reviews compensation for all employees including the Board of Directors and Executive Committee through regular competitive benchmarking. Lonza continues to engage with New Bridge Street (NBS) as needed. The benchmark companies used for the Board of Directors and the Executive Committee are described in greater details in [Section 3.1](#) and [Section 4.1](#).

NBS is part of AON Hewitt's Performance, Reward and Talent Group. AON Hewitt has further consulting arrangements with Lonza Human Resources.

2 – Compensation Components

The compensation of Lonza employees includes the following components (total compensation):

2.1 Base Pay

The base pay of Lonza employees is established by assessing the scope of the job within the context of the relevant market, as well as individual performance. The base pay should be in general comparable with the median of similar positions in the pharmaceutical, chemical and general industries. Potential increases in base pay are evaluated on a regular basis and are typically based on relevant market economic developments, benchmarks and the employee's performance.

2.2 Variable Compensation

The variable compensation is designed to provide employees with the opportunity to participate in the company's overall success and earn a competitive total compensation. The majority of employees participate in a short-term incentive plan (STIP). Senior management and key employees also participate in a long-term incentive plan (LTIP). The guiding principle for these plans is to motivate, reward and retain employees for the company's short-term and long-term financial success.

2.3 Benefits

The benefits programs are specified by country, taking into consideration local legislation as well as competitive market practices within our industry. Benefit packages are reviewed on a regular basis.

3 – Compensation of the Board of Directors

3.1 Principles

Objective and Benchmarks

The NCC determined that they would again use benchmark data of Swiss companies (various sectors) that are comparable in type of business, complexity, size and global presence to Lonza in determining competitive Board of Directors' Compensation. Lonza's objective is to pay the members of the Board of Directors at the median of this benchmark group in accordance with their respective duties and responsibilities ¹.

Overall Structure and Level of Compensation

The overall structure and level of compensation of the Board of Directors remained unchanged between 2015 and 2016.

¹ Actelion Ltd, ARYZTA AG, Barry Callebaut AG, Clariant AG, Emmi AG, Forbo Holding AG, Geberit AG, Georg Fisher AG, Givaudan SA, Logitech International S.A, OC Oerlikon Corporation AG, Panalpina Weltransport (Holding) AG, Sika AG, Sonova Holding AG, Sulzer Ltd, The Swatch Group SA

3.2 Compensation Components

For the period from the Annual General Meeting (AGM) 2016 to the AGM 2017, the members of the Board of Directors receive fixed gross compensation for Board of Directors membership and additional compensation for committee chairperson and committee memberships as described below:

Compensation Board of Directors AGM 2016 to AGM 2017 ²

CHF	Annual fee	Additional committee membership fee	Additional committee chairperson fee
Board of Directors Member	200,000	40,000	80,000
Chairman of the Board of Directors	450,000		

²Refer to [Section 3.3](#) regarding total compensation (including national employer social contributions) provided to the Board of Directors in financial year 2016. The above table represents the period from AGM 2016 to AGM 2017 and does not include social contributions of the employer.

The compensation of the Chairman of the Board of Directors includes his remuneration as a member of the Innovation and Technology Committee of the Board of Directors.

The total compensation of the Committee chairpersons amounts to CHF 280,000 and includes the Committee membership fee.

Board of Directors' compensation for 2016 is paid quarterly; 50% of the compensation is paid in cash and 50% in performance shares. 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.

3.3 Aggregate Compensation of the Board of Directors

Board of Directors' Compensation

	2016					2015				
	Net cash payment CHF	Number of shares	Value of shares ⁴ CHF	Social security and taxes ⁵ CHF	Total ⁶ CHF	Net cash payment CHF	Number of shares	Value of shares ⁴ CHF	Social security and taxes ⁵ CHF	Total ⁶ CHF
Rolf Soiron Chairman ³	204,648	1,329	224,723	40,704	470,075	206,801	1,776	235,316	41,976	484,093
Patrick Aebischer ⁷	124,624	826	139,683	28,576	292,883	126,510	1,101	145,926	29,114	301,550
Werner Bauer	109,547	707	119,539	20,905	249,991	108,352	943	124,997	25,054	258,403
Thomas Ebeling	106,693	707	119,539	24,620	250,852	108,352	943	124,997	25,054	258,403
Jean-Daniel Gerber ⁷	127,662	826	139,683	24,677	292,022	128,935	1,105	146,414	25,519	300,868
Christoph Mäder	80,094	521	89,596	18,391	188,081					
Barbara Richmond	60,011	707	119,538	93,109	272,658	68,770	898	119,503	81,147	269,420
Margot Scheltema ⁷	75,613	826	139,684	64,386	279,683	82,960	1,032	137,502	65,791	286,253
Jürgen Steinemann ⁸	61,411	707	119,538	61,418	242,367	44,775	581	80,160	128,168	253,103
Antonio Trius ⁹	64,812	707	119,538	137,515	321,865	71,109	885	117,916	56,391	245,416
Total	1,015,115	7,863	1,331,061	514,301	2,860,477	946,564	9,264	1,232,731	478,214	2,657,509

³ This compensation includes Mr. Soiron's committee membership. Mr. Soiron is a member of the Innovation and Technology Committee.

⁴ The fair values were calculated using the average closing share price of the last five business days of each quarter, see [note 24](#) in the Lonza Financial Report 2016.

⁵ The social security amounts disclosed in this column represent the full costs of the employer and employee social security contributions and withholding tax.

⁶ Total compensation amounts refer to gross payments, including social security and withholding tax, except where stated otherwise.

⁷ Patrick Aebischer, Jean-Daniel Gerber and Margot Scheltema are Chairpersons of a Board of Directors Committee.

⁸ Social security and taxes 2015 for Jürgen Steinemann include 2014 and 2015 tax liability.

⁹ Includes additional social security provision for Antonio Trius.

The increase in Board of Directors compensation in 2016 was due primarily to the addition of Christoph Mäder to the Board of Directors in April 2016.

No loans or credits were granted to current or former members of the Board of Directors during 2016 (nor in 2015). No loans or credits were outstanding as of 31 December 2016. During 2016, 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 24](#) in the Lonza Financial Report.

4 – Compensation of the Executive Committee

Principles

Remuneration Components

Aggregate Compensation of the Executive Committee

Highest Compensation Paid to a Member of the Executive Committee

Compensation to Departing Members of the Executive Committee

Details of Incentive Plans

Compensation in Case of Termination

4.1 – Principles

Objective and Benchmarks

Lonza's objective is to pay the members of the Executive Committee (EC) a base salary in line with the median for the market as described below, with the potential for executives to earn above-median compensation through a combination of competitive short-term and long-term incentive programs if the company outperforms its financial targets. These incentive plans are designed to align the Executive Committee's objectives with the interests of our shareholders. The total compensation (base salary, variable elements and fringe benefits) of the members of the Executive Committee is benchmarked on a regular basis against the relevant industry.

The following peer groups continued to be used in 2016 to assess total compensation for the Executive Committee.

Peer Groups

Primary peer group	Secondary peer groups
European pharmaceutical / chemical sector businesses (all data adjusted to reflect differences in revenue and market value) ¹	Swiss companies similar in size to Lonza in other sectors ² US pharmaceutical ³ or chemical ⁴ companies similar in size to Lonza

¹ Actelion Ltd, BASF SE, Bayer AG, Clariant AG, Croda International Plc, Evonik Industries AG, Givaudan SA, Novartis AG, Roche Holding Ltd, Sika AG, SGS SA, STADA Arzneimittel AG, Syngenta AG, Wacker Chemie AG.

² ARYZTA AG, Barry Callebaut AG, Emmi AG, Forbo Holding AG, Geberit AG, Georg Fischer AG, Logitech International S.A., OC Oerlikon Corporation AG, Panalpina Welttransport (Holding) AG, Sonova Holding AG, Sulzer

³ Allergan plc, Alere Inc., Endo Health Solutions Inc., Mylan Inc., Perrigo Company, Zoetis Inc.

⁴ Cabot Corporation, Celanese Corporation, Chemtura Corporation, The Clorox Company, Coty Inc., Eastman Chemical Company, FMC Corporation, International Flavors and Fragrances Inc., Methanex Corporation, Westlake Chemical Corporation, W.R. Grace and Company.

The overall structure of compensation for the Executive Committee remained largely unchanged in 2016. For the alignments made to the base salary of the EC and the CEO please refer to the applicable charts in [Section 4.3](#) and [Section 4.4](#).

4.2 – Remuneration Components

The compensation of the members of the Executive Committee consists of the following components:

Base Salary

The base salary is paid in cash and determined for each position considering the responsibilities of the position and performance of each member of the Executive Committee.

Short-Term Incentive (STIP)

The company provides the members of the Executive Committee with a Short-Term Incentive Plan. Performance metrics are defined for each financial year; achievement determines the payout of STIP. The STIP in principle pays out in cash, though it is conveyed in 50% shares when shareholding requirements are not met. For details regarding the STIP, please refer to [Section 4.6 – Short-Term Incentive Plans \(STIP\)](#).

Long-Term Incentive (LTIP)

The LTIP is designed to align the interests of the Executive Committee with those of Lonza's shareholders and to serve as a retention incentive for the executives. The LTIP is a 100% equity-based plan with conditional equity awards vesting after three years according to performance conditions. Executive Committee members are awarded the right to receive a number of shares in Lonza in the future, provided that certain performance-related conditions are achieved. For more details regarding the LTIP, please refer to [Section 4.6 – Long-Term Incentive \(LTIP\)](#).

Benefits

The Executive Committee's compensation package also includes certain benefits, e.g. pension plans and other benefits, such as a car, expenses allowance, health insurance and (if applicable) tuition fees. Please note for 2016, pension benefits reflect the adoption of Lonza's retirement plans based on a Swiss-specific pension review to ensure market competitiveness and retention of executives and the increase in employer pension contributions. These plans were approved by shareholders at the AGM 2016 as part of the total compensation budget.

4.3 – Aggregate Compensation of the Executive Committee

The table below shows the breakout of the Executive Committee Compensation.

Executive Committee's Compensation ¹

million CHF	2016	2015
Cash payments and benefits		
Base salary	2.708	3.101
Short-term incentive (cash) ²	3.573	2.844
Post-employment benefits / other benefits ³	1.444	1.282
Share-based payments		
Value of STIP paid out in shares ⁴	0.441	0.223
Corrective One-Time True-Up for CEO ⁵		0.534
Value of LTIP equity at market value ⁶ (number of equity awards 2016: 18,872 / 2015: 27,930)	2.950	3.050
Total	11.116	11.034
Ratio of fixed compensation to the performance-related components of compensation (without termination payment)	50.11%	69.36%

¹ Average of 4 members in 2016 and average of 5 members in 2015. Rodolfo Savitzky succeeded Toralf Haag as CFO as of October 2016.

² STIP 2015: paid in April 2016. The achievement for 2016 was 174.08% (2015: 117.34%) and will be paid out in April 2017 after the approval of the Shareholders' Meeting.

³ Social security, pension fund and other benefits (see [Section 4.2](#)). The social security and pension fund amounts disclosed on this line represent the full costs of the employer contributions for 2016. The table shows the fair value of the other benefits.

⁴ Actual number of shares relating to the STIP payout will be determined in March 2017. This STIP payout in shares was made in application of the new minimum shareholding requirement according to which the STIP payout will be 50% in shares if an EC member does not meet the minimum shareholding requirement (see [Section 4.6](#)).

⁵ As approved by AGM 2016.

⁶ The fair value in 2015 and 2016 was calculated using the market value at grant date. It is possible that the eventual value at vesting date in 2018 and 2019 will be higher or lower (or even zero).

The decrease in base salary in the aggregate is due to a reduction in the number of EC members in 2016 compared with 2015 offset by salary increases to current Executive Committee members as approved by shareholders at the AGM 2016.

Throughout 2016 Lonza continued to deliver record financial results with outstanding improvements across all key performance indicators, leading to the best-ever full-year results in Lonza's history. The strong sales growth and high margin improvement are the result of diligent and disciplined application of Lonza's successful strategy, resulting in a STIP 2016 payout increase of 31% compared to 2015. This increase in its entirety is attributable to the improved business performance and underlines the sustained overall performance of the past years.

The number of LTIP Equity Awards decreased in 2016 (2016: 18,872 versus 2015: 27,930) due to a reduction in the number of EC members as well as the increase in share price on the date of grant of CHF 156.30 (2015: CHF 109.20). Note that the value of LTIP Equity Awards in CHF decreased from CHF 3.050 million in 2015 to CHF 2.950 million in 2016. The 2016 LTIP Equity Award budget was approved by shareholders in April 2016.

The 2016 LTIP value represented a decrease of 3.3% compared with the 2015 LTIP. This decrease is mainly due to the reduction in the number of Executive Committee Members from 5 to 4. A potential vesting of 200% of the LTIP equity awards would require CORE EPS / CORE RONA performance at very challenging levels. As indicated by the performance of the LTIP in recent years, Lonza has consistently set challenging LTIP targets in application of the pay for performance principle.

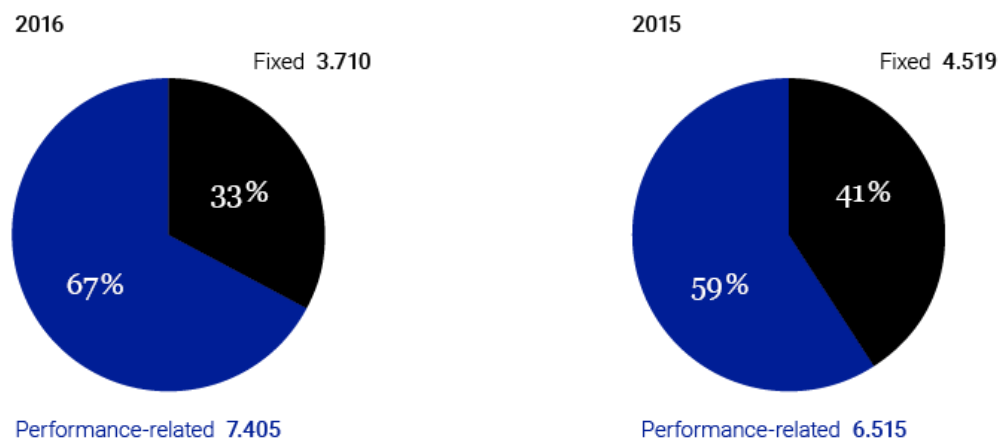
Effective October 2015 the NCC made the decision to introduce shareholding requirements for the Executive Committee to further align the Executive Committee with the interests of shareholders (See [Section 5](#)). In support of this strategy, it was decided that the STIP will pay out 50% in cash and 50% in stock as long as the minimum shareholding requirements (See [Section 4.2](#)) are not met.

No loans or credits were granted to current or former members of the Executive Committee during 2016 (nor in 2015). No loans or credits were outstanding as of 31 December 2016. During 2016 no payments (or waiver of claims) were made to current or former members of the Executive Committee 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.

Performance-Related vs. Fixed Compensation

As illustrated below, Lonza's excellent financial performance has increased the ratio of performance-related vs. fixed compensation.

million CHF



4.4 – Highest Compensation Paid to a Member of the Executive Committee

The table below shows the breakout of the compensation of the highest-paid individual.

Compensation of the Highest-Paid Individual (Richard Ridinger, CEO)

million CHF	2016	2015
Cash payments and benefits		
Base salary	1.005	0.965
Short-term incentive (cash) ¹	1.758	1.173
Post-employment benefits / other benefits ²	0.489	0.339
Share-based payments		
Corrective One-Time True-Up for CEO ³		0.534
Value of LTIP equity at market value ⁴ (number of equity awards 2016: 6,398 / 2015: 8,516)	1.000	0.930
Total	4.252	3.941
Ratio of fixed compensation to the performance-related components of compensation (without termination payment)	46.60%	87.35%

¹ Incentive (STIP) for the reporting year. The 2015 STIP was paid in April 2016; the 2016 STIP will be paid in April 2017 after AGM shareholders' approval. The CEO has met his shareholding requirement and will therefore receive full cash payout of STIP 2016.

² Social security and pension fund as well as company car and health insurance. The social security amounts disclosed on this line represent the full costs of the employer social security contribution for 2015 and 2016. The table shows the fair value of the other benefits.

³ As approved by AGM 2016.

⁴ The fair value in 2015 and 2016 was calculated using the market value at grant date. It is possible that the eventual value at vesting date in 2018 and 2019 will be higher or lower (or even zero).

The proposed STIP payment for 2016 reflects Lonza's outstanding improvements across all key performance indicators, leading to the best-ever full year-results in Lonza's history. Compared with the STIP payout for the financial year 2015, the proposed STIP amount for the financial year 2016 represents an increase of 50%. The strong sales growth and high margin improvement are the result of diligent and disciplined application of Lonza's successful strategy.

4.5 – Compensation to Departing Members of the Executive Committee

One member of the Executive Committee, Beat In-Albon stepped down to assume a non-Executive Committee role at the end of 2015.

In 2016, Toralf Haag, CFO and member of the Executive Committee, left the company, receiving benefits and payments in accordance with his Executive Agreement. His LTIP equity awards for 2014, 2015, and 2016 are treated according to the applicable LTIP plan rules, with vesting, where applicable, occurring according to the achievement of performance conditions.

4.6 – Details of Incentive Plans

This subsection describes the plan details of the Short-Term Incentive Plan (STIP) and the Long-Term Incentive Plan (LTIP):

Short-Term Incentive (STIP)

History and Participation

The Board of Directors implemented the current STIP for the majority of the Group's employees, including the members of the Executive Committee. More than 95% of our employees participate in short-term incentive plans, either in the STIP program or in a local bonus program.

Effective 2015 the NCC made the decision to introduce shareholding requirements for the Executive Committee and further align the Executive Committee with the interests of shareholders. In support of this strategy, the STIP will pay out in cash or in shares based on the Executive's individual holdings of Lonza shares.

The 2016 STIP Program operates for Executive Committee Members as follows:

Objective

The STIP provides the potential for an annual incentive based on the financial performance of the Group and the performance of the participant.

Definition of Targets

The performance criteria are set annually based on the company's short-term objectives and assessed for achievement at the end of the year against the defined financial performance results. Defined financial performance results are derived from the audited financial results 2016.

STIP	CEO	Other Executive Committee members
STIP target as % of base salary ¹	100%	75%
Performance targets	<ul style="list-style-type: none"> • 50% CORE ² EBIT • 15% Lonza sales • 15% Operational free cash flow • 20% Individual targets for Executive Committee members (for 2016: CORE EBIT 10%, sales 5% and operational free cash flow 5%) 	
Form of payout	<ul style="list-style-type: none"> • 100% in cash if CEO holds shares equivalent to 2 times base salary (CEO) and other Executive Committee members 1 times base salary ³ in shares of Lonza • 50% in cash and 50% in Lonza shares if Executive Committee member does not meet minimum requirements 	
Payment timing	The STIP is paid to the members of the Executive Committee in April 2017 after the approval of the Shareholders' Meeting	

¹ Payout range equals 0% – 200%.

² CORE results exclude exceptional items such as restructuring charges, impairments and amortization of acquisition-related intangible assets, which can differ from year to year.

³ As measured on 31 December of the plan year.

Long-Term Incentive (LTIP)

History and Participation

The LTIP is an equity-based plan introduced in 2006 for the Executive Committee and a segment of key employees.

Objective

The LTIP has been designed to align the interests of participants with those of Lonza's shareholders and to serve as a retention tool. LTIP participants are eligible to receive a number of 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 registered shares of Lonza in the future. Depending on the level of the job, the target equity award grant is between 10% and 100% of the annual base salary. The grant is made at target and the payout level can be between 0% and 200%. The Executive Committee members, including the CEO, have a target of 100% of base salary with payout levels between 0% and 200% maximum. Any proration is applied in relation to the entire length of the three-year performance period.

The LTIP plan design is determined at the beginning of the three-year performance period. For 2016 the plan design included minimum, target and stretch goals. The 2016 LTIP budget value for the Executive Committee was approved as submitted at the AGM 2016 and administered in accordance with this approval.

Vesting will depend on achievement of the performance conditions and cannot exceed the maximum amount of granted equity awards.

Restriction and Vesting

The central feature of the plan is that key participants will only receive title and ownership of the shares after a three-year vesting period and only if the performance metrics required for vesting are partially or fully met.

Vesting Targets

For the 2014 LTIP, the performance metrics were CORE EPS and CORE RONO A with 50% weight for each measure. For more details, see [note 24](#) in the Financial Report.

For the 2015 and 2016 LTIP, the performance metrics are CORE EPS and CORE RONO A 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 of Lonza with investors. The value of the LTIP will be ultimately driven by the share price at the time of payout, further linking the LTIP to the interests of the shareholders.

Overview of Vesting Conditions for LTIP

For the years 2015 and 2016, the vesting of up to 50% of the granted equity awards depends on growth of CORE¹ EPS achieved during Lonza's three fiscal years and the vesting of up to 50% of the granted equity awards depends on growth of CORE RONO A achieved during Lonza's three fiscal years.

Performance Metrics for CORE EPS Approved at AGM 2016 (LTIP 2016)

- The minimum threshold to be reached at year-end 2018 was determined by the NCC to be significantly higher than the CORE EPS achieved on 31 December 2015 (which was CHF 6.81). If this minimum threshold is not reached, the payout will be zero. If this threshold is reached, 50% of the equity awards granted under CORE EPS will vest.
- If the target is reached, 100% of the equity awards granted under CORE EPS will vest. CORE EPS is an internal, sensitive financial target which is not disclosed at this time.
- The maximum was determined to approximate 115% of the CORE EPS at target. If such level of CORE EPS is reached, 200% of the equity awards granted under CORE EPS will vest.

Performance Metrics for CORE RONO A Approved at AGM 2016 (LTIP 2016)

- The minimum threshold to be reached at year-end 2018 was determined by the NCC to be significantly higher than the CORE RONO A achieved on 31 December 2015 (which was 16.4%). If this minimum threshold is not reached, the payout will be zero. If this threshold is reached, 50% of the equity awards granted under CORE RONO A will vest.
- If the target is reached, 100% of the equity awards granted under CORE RONO A will vest. CORE RONO A is an internal, sensitive financial target which is not disclosed at this time.
- The maximum was determined to approximate 117.5% of the CORE RONO A at target. If such level of CORE RONO A is reached, 200% of the equity awards granted under CORE RONO A will vest.

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 2014 and 2013

Performance under the 2013 LTIP exceeded the maximum for EPS, generating a 100% payout on 50% of the total award. Performance under the 2013 LTIP achieved the maximum target for TSR, generating a 100% payout on the remaining 50% of the total award. The total 2013 LTIP payout equals 100%.

Performance under the 2014 LTIP exceeded the target for CORE EPS, generating a 100% payout on 50% of the total award. Performance under the 2014 LTIP exceeded the target for CORE RONO A, generating a 100% payout on the remaining 50% of the total award. The total 2014 LTIP payout equals 100%.

2014 LTIP

	Actual performance	Payout in %
CORE EPS (Earnings Per Share) ¹	CHF 8.15	100
CORE RONO A (Return on Net Operating Assets) ¹	20.97%	100
Total payout		100

¹ CORE results exclude exceptional items such as restructuring charges, impairments and amortization of acquisition-related intangible assets, which can differ from year to year.

4.7 – Compensation in Case of Termination ¹

All executive agreements comply with the Swiss Ordinance Against Excessive Compensation for Stock-Exchange-Listed Companies. The following outlines the specific termination-related topics included in the agreements of the Executive Committee members and the STIP and LTIP rules and administrative guidelines and practices.

Notice Period

All members of the Executive Committee are subject to a 12-month notice period.

Base Pay and Benefits

All members of the Executive Committee who terminate their employment will receive their base pay during the 12-month notice period and will be eligible for the benefits relating to the 12-month notice period, such as lump-sum expenses, pension fund plans, health and accident insurance, company car, family/child allowances according to their respective employment agreement.

¹ Cases such as death, disability and retirement are not covered in this section.

STIP Payouts in the Event of Termination ²

Resignation by the Executive

Subject to applicable law, if a member of the Executive Committee resigns at any time prior to distribution of STIP awards such member will not be entitled to any award with respect to the plan year in which their employment is terminated, except if (i) the termination as a result of such resignation occurs after 31 December of the plan year and (ii) the executive was not released from his obligation to work.

Termination by the Company Without Cause

Any member of the Executive Committee whose employment is terminated by the Company without cause will be entitled to a prorated STIP payment relating to the notice period.

Termination by the Company for Cause

Any member of the Executive Committee whose employment is terminated by the Company for cause will not be entitled to the STIP payment relating to the current year (year of termination).

STIP in Change of Control

Any member of the Executive Committee whose employment is terminated by the Company without cause or who terminates the employment due to good reason (such as his function/duties/responsibilities being altered or the Company or the successor to Lonza Group Ltd failing to confirm to the executive in writing that no such alteration is intended) within 18 months following a change in control will be entitled to a STIP payment during the termination notice period (pro-rata) based on actual (to the extent it may be determined) or presumed achievement and, if and to the extent the executive is released from an obligation to work, based on assumed target achievement (100%).

² This summary of consequences in case of termination is based on plan rules applicable to STIP 2016.

LTIP Payouts in the Event of Termination

Resignation by the Executive

Any member of the Executive Committee who resigns will forfeit the right to receive a transfer of any unvested LTIP awards.

Termination by the Company Without Cause

Any member of the Executive Committee whose employment is terminated by the Company without cause and has unvested shares vest on a pro rata basis based on the number of months worked (including the notice period) during the 36-month performance period for grants 2015 and 2016.

Termination by the Company for Cause

Any member of the Executive Committee whose employment is terminated by the Company for cause will forfeit the right to receive a transfer of any unvested LTIP shares.

LTIP in Change of Control

Under the LTIP rules, if a Change of Control occurs, all unvested granted shares 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.

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 6 months 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 business segments. 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 ten (10) months prior to the end of the notice period.

Claw-Back

Any compensation (including fringe benefits) under the employment agreement of the Executive Committee members is subject to claw-back or forfeiture if the compensation is not approved at the Annual General Meeting.

5 – Share Ownership of the Members of the Board of Directors and the Executive Committee

Based on information available to Lonza, the members of the Board of Directors and parties closely associated with them¹ held, as of 31 December 2016, a total of 135,180 (2015: 129,815) registered shares in Lonza Group Ltd and controlled 0.26% (2015: 0.25%) 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.

The Company feels strongly that our Executive Committee and other senior managers should have a defined shareholding in Lonza to strengthen their alignment with our shareholders' interests. Starting in 2016 Lonza established minimum shareholding requirements for the Executive Committee and other senior managers based on level in the organization and specified a five-year period to achieve these minimum requirements. Shareholding levels were reviewed annually beginning in January 2016. The NCC may periodically review the minimum shareholding requirements.

The members of the Executive Committee and parties closely associated with them held 67,335 (2015: 60,095) shares and controlled 0.13% (2015: 0.11%) of the share capital. The individual control rights are proportional to the holdings shown below.

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.

Share ownership of acting members of the Board of Directors and Executive Committee as of 31 December 2016:

Board of Directors

Lonza shares (numbers)	2016	2015
Rolf Soiron, Chairman	69,683	68,324
Patrick Aebischer	10,574	12,229
Werner Bauer	19,180	18,456
Thomas Ebeling	4,255	3,531
Jean-Daniel Gerber	12,840	11,995
Christoph Mäder	351	n.a.
Barbara Richmond	2,184	1,460
Margot Scheltema	7,561	6,716
Jürgen Steinemann	4,356	3,632
Antonio Trius	4,196	3,472

Executive Committee

Lonza shares (numbers)	2016	2015
Richard Ridinger, CEO	41,564	25,906
Sven Abend	1,373	0
Marc Funk	24,398	12,049
Toralf Haag	n.a.	15,736
Beat In-Albon	n.a.	6,404
Rodolfo Savitzky	0	n.a.

Minimum Shareholding Requirements:

- CEO: 2 times base salary
- Other Executive Committee: 1 times base salary
- Other senior managers: Annual LTIP grant value
- Shareholdings measured at the end of January in each calendar year
- Five years to achieve minimum requirements

Report of the Statutory Auditor

To the General Meeting of Lonza Group Ltd, Basel

We have audited the remuneration report dated 31 December 2016 of Lonza Group Ltd for the year ended 31 December 2016. 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 3.3, 4.3, 4.4 and 4.5 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 2016 of Lonza Group Ltd complies with Swiss law and articles 14 – 16 of the Ordinance.

KPMG AG

Michael Blume
Licensed Audit Expert
Auditor in Charge

Florin Janine Krapp
Licensed Audit Expert

Zurich, 16 March 2017

Corporate Governance Report

This Corporate Governance Report presents the structure, rules and processes that form the basis of Lonza's corporate governance. The Report follows the structure of the SIX Swiss Exchange's Directive on Information relating to Corporate Governance.

The principles and rules of Lonza's corporate governance are laid down in the Lonza Articles of Association and in the Regulations Governing Internal Organization and Board Committees, including their Charters. In the implementation of its corporate governance, Lonza follows the Swiss Code of Best Practice for Corporate Governance issued by the Swiss Business Federation *economiesuisse*.

[Group Structure and Shareholders](#)

[Capital Structure](#)

[Board of Directors](#)

[Executive Committee](#)

[Compensation, Shareholdings and Loans](#)

[Shareholders' Participation Rights](#)

[Changes of Control and Defense Measures](#)

[Auditors](#)

[Information Policy and Key Reporting Dates](#)



Group Structure and Shareholders

Operational Group Structure

Board of Directors (BoD)

- Audit and Compliance Committee
- Nomination and Compensation Committee
- Innovation and Technology Committee

Executive Committee (EC)

CEO – CFO¹ – COO – COO – CHRO²

Segments	Operational Units	Corporate Functions	Global Business Service Organization
Pharma&Biotech Specialty Ingredients			

Segments

Lonza's activities are organized into two segments:

The **Pharma&Biotech** segment covers Custom Development and Manufacturing offerings directed to pharmaceutical markets, as well as offerings from Lonza's Bioscience Solutions business for the bioresearch market. It includes five business units: **Mammalian Manufacturing**, **Chemical and Microbial Manufacturing**, **Clinical Development Licensing**, **Emerging Technologies** and **Bioscience Solutions**. This all-encompassing segment offers pharmaceutical and biotech industries Lonza's recognized development and manufacturing know-how and broad technology platform.

The **Specialty Ingredients** segment includes consumer-oriented offerings with four business units: **Consumer Care**, **Agro Ingredients**, **Coatings and Composites**, and **Water Treatment**.

Operational Units

Lonza's Operational Units are divided into four: Pharma&Biotech Operations and Research & Technology, along with Specialty Ingredients Operations and Research & Technology.

Corporate Functions

The Corporate Functions include Human Resources, Finance & Controlling, IT, Corporate Development, Engineering, Legal / IP, Logistics and Purchasing, Quality, Corporate Communications and Investor Relations and Environment, Health and Safety.

Global Business Service Organization

The Global Business Service Organization (GBSO) supports our market activities by implementing corporate guidelines and driving service excellence. The GBSO is helping to facilitate Lonza's profitable growth by establishing standardized and harmonized solutions that enable the implementation of innovations at pace and scale. Key focus areas are on the critical business support functions.

Holding Company and Listed Companies

Lonza Group Ltd, with registered office in Basel (CH), is the ultimate parent company of the Lonza Group. Except for Lonza Group Ltd, no company belonging to the Lonza Group is listed. Please refer to the [Shares and Participation Certificates](#) section, 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 32: Principal Subsidiaries and Joint Ventures](#).

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 2016.

Principal shareholders	%
BlackRock, Inc., New York, NY (USA)	10.34
Massachusetts Mutual Life Insurance Company, Springfield, MA (USA)	4.51
Norges Bank (the Central Bank of Norway), Oslo (NOR)	3.78

Lonza knows of no other shareholder(s) that owned more than 3% of its share capital as of 31 December 2016. To Lonza's best knowledge, the above-mentioned shareholders are 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 2016, please refer to the [SIX Swiss Exchange disclosure platform](#).

Cross-Shareholdings

Lonza Group Ltd has not entered into any cross-shareholdings.

Capital Structure

Share Capital

As of 31 December 2016, Lonza's share capital amounted to CHF 52,920,140, fully paid-in and divided into 52,920,140 registered shares with a par value of CHF 1 each.

Shareholder Structure

	31 December 2016		31 December 2015	
	Shareholders in %	Shares in %	Shareholders in %	Shares in %
Switzerland	85.61	20.82	85.66	24.29
United Kingdom	1.12	21.28	1.13	19.1
USA	3.98	3.62	4.03	6.12
Others	9.28	12.61	9.17	9.5
Shares in transit		41.43		39.79
Treasury shares without voting rights	0.01	0.24	0.01	1.2
Total	100	100	100	100
Total number of shares		52,920,140		52,920,140

Share Register

	31 December 2016	31 December 2015
Registered shareholders	11,596	11,947
Registered shares	30,996,771	31,865,033
Share distribution:		
1-100	4,933	4,832
101-1,000	5,681	6,078
1,001-50,000	920	845
50,001- 100,000	31	144
100,001- 1,000,000	28	44
over 1,000,000	3	4
Total registered shareholders	11,596	11,947

Authorized Conditional Capital ¹

The Board of Directors is authorized to increase, at any time until 8 April 2017, the share capital of Lonza through the issuance of a maximum of 5,000,000 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 5,000,000. This authorized capital was created by the Annual General Meeting held on 8 April 2015. 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](#).

Contingent Capital Lonza's share capital may be increased through the issuance of a maximum of 5,029,860 fully paid-in registered shares with a par value of CHF 1 each up to a maximum aggregate amount of CHF 5,029,860. This contingent capital (also called conditional capital) was created by the Annual General Meeting on 11 April 2005. 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 contingent capital and authorized capital may increase Lonza's share capital by a maximum aggregate amount of CHF 5,029,860.

¹ Lonza has successfully placed 5 million new shares (Authorized Capital), which were listed and admitted to trading on the SIX Swiss Exchange on 3 February 2017 (see [note 4.4](#) of the Financial Report) – Article 4^{ter} "Authorized Capital" of the Lonza Articles of Association was thereafter deleted.

Changes in Capital

The share capital has not changed in the last four financial years.

as of 31 December	2016	2015	2014	2013
Share capital in CHF	52,920,140	52,920,140	52,920,140	52,920,140
Registered shares	52,920,140	52,920,140	52,920,140	52,920,140
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 are included in the Swiss Leader Index (SLI).

Lonza has not issued any participation certificates (Partizipationscheine, non-voting shares).
Security numbers:

Stock Exchange Listing / Trading:

- SIX Swiss Exchange
- SGX Singapore Exchange

Common Stock Symbols

- Bloomberg LONN VX
- Reuters LONN VX
- Telekurs LONN
- SGX O6Z

Security Number

- Valor 001384101
- ISIN CH0013841017

On 31 December 2016, Lonza had a market capitalization of CHF 9,330 billion (2015: CHF 8,631 billion).

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 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 2016, 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 made up of ten non-executive members.

Name	Nationality	Year of birth	Year of initial appointment	Expiration of current term of office	Independence
Rolf Soiron	Swiss	1945	2005	2017	Independent
Patrick Aebischer	Swiss	1954	2008	2017	Independent
Werner Bauer	Swiss	1950	2013	2017	Independent
Thomas Ebeling¹	German	1959	2013	2017	Independent
Jean-Daniel Gerber	Swiss	1946	2011	2017	Independent
Christoph Mäder	Swiss	1959	2016	2017	Independent
Barbara Richmond	British	1960	2014	2017	Independent
Margot Scheltema	Dutch	1954	2012	2017	Independent
Jürgen Steinemann	German	1958	2014	2017	Independent
Antonio Trius	Spanish	1955	2013	2017	Independent

¹ Thomas Ebeling will not stand for re-election at the AGM this year (see [Letter to Shareholders](#))

The assessment of the independence of the members of the Board of Directors is made pursuant to Article 14 of the Swiss Code of Best Practice for Corporate Governance. Independent members shall mean non-executive members of the Board of Directors who have never been members of the Executive Committee, or were members thereof more than three years ago, and who have no or comparatively minor business relations with the company.

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;
- five mandates held at the request of Lonza or companies controlled by it; and
- 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 shall mean 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.

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 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 members of 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 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 2016:

Name	Audit and Compliance Committee	Nomination and Compensation Committee	Innovation and Technology Committee
Rolf Soiron			Member
Patrick Aebischer			Chairman
Werner Bauer			Member
Thomas Ebeling		Member	
Jean-Daniel Gerber		Chairman	
Christoph Mäder		Member	
Barbara Richmond	Member		
Margot Scheltema	Chairwoman		
Jürgen Steinemann		Member	
Antonio Trius	Member		

Audit and Compliance Committee

The Audit and Compliance Committee meets and consults regularly with the Executive Committee, the Lonza Audit Services and the 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 it regularly informs the full Board of Directors on all matters discussed and decided in its meetings. Internal and external auditors have full and free access to the Audit and Compliance Committee, which also oversees the Lonza Audit Services.

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. Further, 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

	Board of Directors	Audit and Compliance Committee (ACC)	Nomination and Compensation Committee (NCC)	Innovation and Technology Committee (ITC)
Number of meetings	10 (5 ordinary meetings and 5 extraordinary conference calls)	6 (5 ordinary and 1 extraordinary meeting)	6	5
Average duration	Conference calls: 1 hour Ordinary meetings: 6.5 hours	2:15 hours	2:15 hours	2 hours
Overall attendance	96%	100%	93%	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 standing Board Committees provide support to the Board of Directors in their respective areas of responsibilities.

The Board of Directors meet with all members of the Executive Committee at each ordinary Board meeting for business updates and decisions to be taken. The 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 CFO attends all meetings of the Audit and Compliance Committee.

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, the regulations and directives. In compliance with law and the Articles of Association, the Board of Directors has – with the exception of non-delegable and inalienable duties – delegated the management of the company to the Executive Committee.

The 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.

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.

Board Information

The [Regulations Governing Internal Organization and Board Committees](#) confer on the CEO the duty to inform the Executive Committee and – together with the Chairman – the Board of Directors on the business activities and all important business transactions, including risk 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:

- Monthly reports on the sales and earnings performance of the Group structured by segments.
- 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 segments on a quarterly basis.
- Reports of the external audits for the full-year and 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 Lonza Audit Services group comprises nine internal audit positions, reviewing financial, operational and information technology-related activities of the entire Lonza Group with a risk-based audit program.

They continually evaluate the adequacy and effectiveness of the system of internal controls as well as company policies and procedures; and they recommend appropriate actions to correct deficiencies identified. In 2016, they delivered 45 internal audit reports to the Audit and Compliance Committee.

Internal Control System

Lonza has a system of internal financial and accounting policies, procedures and controls to provide a reasonable assurance – given the inherent limitations of all internal control systems to be implemented at an appropriate cost – that transactions are executed in accordance with company authorization, that they are properly recorded and reported in the financial statements, and that assets are properly safeguarded.

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. It also 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, insider trading and conflicts of interest. In addition to these measures, Lonza offers a "whistleblower" 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 of laws and regulations and strengthen compliance.

Risk Assessment

The Board of Directors carries out risk assessments at least on 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 the risk mitigations. In its 2016 assessment of Group risk, the Board of Directors of Lonza identified as the main risks: the dependency on a few large products /customers in specific businesses of the Specialty Ingredient segment, the increasing challenges in the quality requirements, the operational execution and the securing of long-term contracts in the Pharma&Biotech segment.

For more details on risk management policy, financial risks (credit, liquidity and market risks) and enterprise risk management, please refer to financial [note 28](#) and [note 30](#) of the Consolidated Financial Statements.

Rolf Soiron



Rolf Soiron holds a PhD in history from the University of Basel and a PMD from the Harvard Business School.

Chairman of the Board of Directors of Lonza Group Ltd (since 2005)

Current activities and functions:

- Chairman of the Council of the Foundation of the Graduate Institute of International and Development Studies, Geneva (since 2014) and Member of the Council (since 2010)
- Member of the Assembly Council of the International Committee of the Red Cross, Geneva (since 2010) and Member of the International Committee of the Red Cross, Geneva (since 2009)
- Chairman of the LafargeHolcim Foundation for Sustainable Construction (since 2003)
- Member of the Board of Directors of Jungbunzlauer Holding AG (since 1993)

Former activities and functions:

- Member of the Board of economiesuisse (2009–2015)
- Chairman of the Board of Directors of Holcim Ltd (2003–2014) and member of the Board (1994–2014)
- Chairman of the Foundation Council of Avenir Suisse (2009–2014)
- CEO ad interim of Lonza Group Ltd, Basel (January 2012 – April 2012)
- Chairman of the Board of Directors of Nobel Biocare Holding Ltd (2003–2010)
- Chairman of the Basel University Council (1995–2005)
- Managing Director of Jungbunzlauer Group (2001–2003)
- CEO of Jungbunzlauer Group (1993–2001)
- Sandoz Group – COO and Head of Pharma in Basel (1992–1993), Group Vice President Agribusiness USA in New York (1988–1992)
- Protek Group (orthopedic implants) – President and CEO (1983–1987)
- Sandoz Group – various functions in Human Resources, Finance and Corporate (1972–1983)

Patrick Aebischer



Patrick Aebischer holds a doctorate in medicine from the University of Geneva. He has received numerous honors, including the Robert Bing Prize of the Swiss Academy of Medicine and the Pfizer Foundation Prize for Clinical Neurosciences.

Vice Chairman of the Board of Directors of Lonza Group Ltd (since 2014) and Member of the Board of Directors (since March 2008)

Current activities and functions:

- Senate member of the "Deutsches Zentrum für Neurodegenerative Erkrankungen (DZNE)" (since 2016)
- Member of the Board of Directors of Logitech SA (since 2016)
- Member of the Board of Directors of Nestlé SA (since 2015)
- Scientific technical committee member of the Italian Institute of Technology (since 2015)
- Chairman of the Advisory Board of the Novartis Venture Fund (since 2014)
- Member of the Singapore Biomedical Sciences International Advisory Council (since 2013)
- Chairman of the Board of Amazentis SA (since 2007)
- Professor of Neurosciences, Swiss Federal Institute of Technology Lausanne (EPFL) (since 2000)

Former activities and functions:

- President of the Swiss Federal Institute of Technology of Lausanne (EPFL) (2000–2016)
- Representative of the EPFL on the boards of various Swiss foundations
- Member of the Foundation Board of the World Economic Forum (2013–2016)

Werner Bauer



Werner Bauer holds a diploma and PhD in Chemical Engineering from the University Erlangen-Nürnberg. He has received several scientific honors, among others the BioAlps Award 2011 and Honorary Senator from the Technical University of Munich.

Member of the Board of Directors of Lonza Group Ltd (since April 2013)

Current activities and functions:

- Member of the Board of Directors of Givaudan SA (since 2014)
- Member of the Supervisory Board of Bertelsmann SE & Co. KGaA (since 2012) and Chairman of the Board of Trustees of the Bertelsmann Foundation (since 2011)
- Member of the Supervisory Board of GEA-Group AG (since 2011)
- Chairman of the Supervisory Board of Nestlé Deutschland AG (since 2007)

Former activities and functions:

- 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 SA (2011–2014)
- Member of the Board of Directors of L'OREAL, France (2005–2012)
- Member of the Board of Directors of Alcon Inc., Switzerland (2002–2010)
- Director of the Fraunhofer Institute for Food Technology & Packaging (1985–1990)
- Professor of Chemical Engineering at the Technical University of Hamburg (1980–1985)

Thomas Ebeling



Thomas Ebeling holds a Master's degree in Psychology from the University of Hamburg.

Member of the Board of Directors of Lonza Group Ltd (since April 2013)

Current activities and functions:

- Member of the Advisory Board / MPM Oncology Investments LLC (since January 2016)
- Member of the Advisory Board / Auris Luxembourg III S.à r.l. (since 2015)
- Founder of Better Life Healthcare (since 2015)
- Member of the Supervisory Board of Bayer AG (since 2012)
- CEO of ProSiebenSat.1. Media SE (since 2009)

Former activities and functions:

- Adviser to TPG Biotech Fund (2011–2015)
- CEO of the Novartis Consumer Health Division (2007–2008)
- CEO of the global Novartis pharmaceuticals business (2000–2007)
- Head of Novartis Nutrition Division (1998–2000)
- General Manager of Novartis Nutrition for Germany and Austria (1997–1998)

Jean-Daniel Gerber



Jean-Daniel Gerber holds a lic. rer. pol. in economics from the University of Bern. He was awarded an honorary doctorate by the Faculty of Economics and Social Sciences of the University of Bern.

Member of the Board of Directors of Lonza Group Ltd (since April 2011)

Current activities and functions:

- Chairman of the Association “Swiss Sustainable Finance” (since 2015)
- Vice-President of the Association “Platform Switzerland Europe” (since 2015)
- Member of the AO Alliance Foundation (since 2015)
- Chairman of the Board of the Swiss Investment Fund for Emerging Markets (SIFEM) (since 2011)
- Chairman of the Swiss Society for Public Good (since 2011)

Former activities and functions:

- Member of the Board of Directors of Credit Suisse Group Ltd (2012–2015)
- Director of the State Secretariat for Economic Affairs (SECO) with the title of State Secretary (2004–2011)
- Director of the Federal Office for Migration (then Federal Office for Refugees) in the Federal Department of Justice and Police (1997–2004)
- Executive Director at the World Bank (1993 –1997) and Dean of the Executive Directors of the World Bank Group (1996 –1997)
- Chief of Section for Developing Countries in the former Federal Office for Foreign Economic Affairs (1991–1992)

Christoph Mäder



Christoph Mäder (1959) holds a Master's degree in Law from the University of Basel and is admitted to the Swiss Bar.

Member of the Board of Directors of Lonza Group Ltd (since April 2016)

Current activities and functions:

- Vice Chairman of economiesuisse (since 2011)
- Member of the Board of scienceindustries (since 2003)
- Member of the Board of the Basel Chamber of Commerce (since 2002)
- Member of the Group Executive Committee of Syngenta (since 2000)

Former activities and functions:

- 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)
- Head of Legal & Public Affairs for Novartis Crop Protection AG (1999–2000)
- Senior Corporate Counsel for Novartis International AG (1992–1998)

Barbara Richmond



Barbara Richmond holds a first-class degree in Management Science from the University of Manchester Institute of Science and Technology in England. She is a Fellow of the Institute of Chartered Accountants in England and Wales.

Member of the Board of Directors of Lonza Group Ltd (since April 2014)

Current activities and functions:

- Group CFO of Redrow plc (since 2010)

Former activities and functions:

- Group CFO 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 (1992–1997)
- Various financial roles in Alstom Group SA (1987–1992)
- Auditor and management consultant for Arthur Andersen (1981–1984)

Margot Scheltema



Margot Scheltema holds a doctorate in international law from the University of Amsterdam and a master of international affairs (MIA) from Columbia University in New York.

Member of the Board of Directors of Lonza Group Ltd (since April 2012)

Current activities and functions:

- Member of the Supervisory Board of the Dutch Central Bank (since 2015)
- Member of the Central Plan Committee Dutch Planning Bureau (since 2014)
- Chair of the Monitoring Committee of the Dutch Pension Fund Code (since 2014)
- Council to the Enterprise Chamber of the Amsterdam Court of Appeal (since 2013)
- Member of the Supervisory Board of Warmtebedrijf Rotterdam (since 2011)
- Member of the Supervisory Board of TNT Express (since 2011)
- Member of the Supervisory Board of Schiphol NV (since 2010)

Former activities and functions:

- Vice Chair of the Supervisory Board of Triodos Bank (2006 –2015)
- Member of the Supervisory Board of ASR NV (2008 –2015)
- Member of the Supervisory Board of the Rijksmuseum (2007–2015)
- External Member of the Audit Committee of the Dutch pension fund ABP (2010 to July 2014)
- Member of the Supervisory Board of ECN (2009–2013)
- Member of the AFM External Reporting Committee (2006–2012)
- Financial Director of Shell Nederland BV (2004–2008)
- Various managerial positions within the Shell Group (1985–2004)

Jürgen Steinemann



Jürgen Steinemann holds a degree in Economics and Business Management from the European Business School in Wiesbaden, London and Paris.

Member of the Board of Directors of Lonza Group Ltd (since April 2014)

Current activities and functions:

- Investor in food and agri businesses
- Member of the Board of Directors of Barry Callebaut AG (since 2015)
- Chairman of the Supervisory Board of Metro Group AG (since 2015)
- Member of the Supervisory Board of Big Dutchman AG (since 2015)
- Member of the Supervisory Board of Ewald Dörken AG (since 2002)
- Member of the Board of the Swiss-American Chamber of Commerce (since 2011)

Former activities and functions:

- 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)

Antonio Trius



Antonio Trius holds a Bachelor in Organic Chemistry from the University of Barcelona, a PhD in Chemistry from the Autonomous University of Barcelona and a PDD in Business Administration from the IESE Barcelona.

Member of the Board of Directors of Lonza Group Ltd (since April 2013)

Current activities and functions:

- Member of the Board of Directors of Mauser Group BV (since 2015)
- Member of the Board of Directors of Quantum Medical & Cosmetics S.L. (since 2015)
- Member of the Board of Directors of MaxamCorp Holding S.L. (since 2014)
- Member of the Board of Directors of Azelis SA (since 2014)
- Member of the Supervisory Board of Altana AG (since 2012)

Former activities and functions:

- Member of the Board of Directors of Nubiola SL (2011–2015)
- CEO of Cognis GmbH (2001–2010)
- Executive Vice President Care Chemicals North America Cognis BV (1999–2001)
- Vice President Care Chemicals at Henkel KGaA (1997–1999)

Executive Committee

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

Members of the Executive Committee

New Composition of Executive Committee

On 10 May 2016, Lonza announced that Toralf Haag will leave Lonza after 11 years with the company. As result he stepped down from his role as Chief Financial Officer and his position on the Executive Committee with effect from 30 September 2016. Lonza further announced the appointment of Rodolfo Savitzky as Chief Financial Officer, to replace [Toralf Haag](#) with effect from 1 October 2016. As of 1 February 2017 [Fridtjof Helemann](#) joined the Executive Committee as Chief Human Resources Officer, extending the Executive Committee to five members.

As of 31 December 2016, the Executive Committee consisted of four members.

Name	Nationality	Year of Birth	Function
Richard Ridinger	German	1958	Chief Executive Officer
Rodolfo Savitzky	Swiss	1962	Chief Financial Officer
Sven Abend	German	1968	Chief Operating Officer Specialty Ingredients Segment
Marc Funk	Swiss	1960	Chief Operating Officer Pharma&Biotech Segment

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;
- five mandates held at the request of Lonza or companies controlled by it; and
- ten mandates in associations, charitable foundations, trusts and employee welfare foundations.

Mandates shall mean 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.

Management Contracts

Lonza Group Ltd has not entered into management contracts with companies or natural persons not belonging to the Group.

Richard Ridinger



Richard Ridinger holds a degree in chemical engineering from the University of Karlsruhe.

Chief Executive Officer (CEO) and Member of the Executive Committee (since May 2012)

Current activities and functions:

- Member of the Board of Firmenich International SA (since October 2016)

Former activities and functions:

- Transfer and integration of Cognis GmbH into BASF (2011)
- Member of the Management Board and Executive Vice-President “Care Chemicals” of Cognis GmbH (2006–2010)
- SBU Head of “Cognis Care Chemicals” and member of the Cognis Executive Committee (2002–2006)
- Vice President of the global “Care Chemicals Specialties” business of Cognis GmbH (2000–2002)
- Director global Skin Care Ingredients Business at Henkel KGa A / Cognis GmbH (1999–2000)
- Various positions at Henkel KGa A in R&D, Engineering and Production Management (1986–1999)

Toralf Haag



Toralf Haag holds a degree in business administration from the University of Augsburg and a PhD from the University of Kiel.

Chief Financial Officer (CFO) and Member of the Executive Committee (August 2005–September 2016)

Current activities and functions:

- Chief Financial Officer of the Voith Group (since October 2016)
- Member of the Board of Fr. Sauter AG, Basel (since February 2014)
- Member of the Board of scienceindustries (since 2012)
- Member of the Board of Vereinigung Schweizer Finanzchefs (VSF) (since 2009)

Former activities and functions:

- Chief Financial Officer and Member of the Management Board at Norddeutsche Affinerie AG, Hamburg (2002–2005)
- CEO (President) Stamping & Frame Division of The Budd Company Detroit, a subsidiary of ThyssenKrupp Automotive (2000–2001)
- Director Finance, M&A and Corporate Development, The Budd Company Detroit (1997–1999)
- Assistant to the CEO of Thyssen Handelsunion AG, Düsseldorf (1994–1996)

Rodolfo Savitzky



Rodolfo Savitzky holds a degree in Industrial and Systems Engineering from the Monterrey Institute of Technology and an MBA in Finance and Economics from the University of Chicago

Chief Financial Officer (CFO) and Member of the Executive Committee (since October 2016)

Former activities and functions:

- Vice President, Controller Lonza Pharma&Biotech (2015–2016)
- Division CFO, Novartis Animal Health (2011–2015)
- Business Unit Head of Finance Novartis Animal Health (2006–2011)
- Head of Strategy Planning and Analysis, Novartis Pharmaceuticals (2004–2005)
- Head of Business Planning and Analysis, Novartis Pharmaceuticals (2003–2004)
- Head of Finance Ophthalmic Business Unit, Novartis Pharmaceuticals (2002–2003)
- Various positions at P&G (1990–2001)

Sven Abend



Sven Abend holds a PhD in Chemistry from the Christian-Albrechts-Universität in Kiel, and a post-doctorate from the Department of Physics & Astronomy at the University of New York in Stony Brook

Chief Operating Officer (COO) Specialty Ingredients Segment (since January 2016) and Member of the Executive Committee (since July 2014)

Former activities and functions:

- CEO of Kolb Ltd in Hedingen, Switzerland (2012–2014)
- Business Manager for Kolb's divisions focusing on specialty surfactants and custom manufacturing (2010–2012)
- Several senior positions in Global Product Management and ultimately as Director of Corporate Key Account Management at Cognis GmbH in Germany (2003–2010)
- Project Scientist for the R&D Home & Personal Care business at Unilever in the UK (2000–2003)

Marc Funk



Marc Funk holds a Master of Law from the University of Geneva and a Master of Law and Diplomacy from the Fletcher School (Tuft University, MA).

Chief Operating Officer (COO) Pharma&Biotech Segment (since May 2014) and Member of the Executive Committee (since April 2012)

Former activities and functions:

- Group General Counsel and Board Secretary Lonza Group Ltd (2009–2014)
- Associate General Counsel of Merck Serono (formerly Serono) (2004–2008)
- Co-CEO and General Counsel of GeneProt (2000–2004)

Fridtjof Helemann



Fridtjof Helemann holds a degree in Engineering from the University of Siegen (DE)

Chief Human Resource Officer (CHRO) (since 2016)
and Member of the Executive Committee (since February 2017)

Former activities and functions:

- Managing Partner and President of Oxford Leadership (2014–2016)
- Partner and CEO Mercer Inc. Central Europe (2011–2014)
- Vice President and General Manager Central and Eastern Europe at Right Management (2010–2011)
- Corporate Vice President HR Henkel AG (2003–2009)
- Various HR consulting roles: Partner Hay Group and MD Kienbaum

Compensation, Shareholdings and Loans

Details of Board and Executive Committee compensation are contained in the [Remuneration Report](#).

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 actually entitled persons are revealed. The details are set out in Article 6 of the [Lonza Articles of Association](#). 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. 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 Meetings. 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).

There are no special rules in the [Lonza Articles of Association](#) concerning a deadline for entry in the share register. The share register will this year be closed on 13 April 2017 at 17:00 Swiss time.

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 33 ⅓ % 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 share-based compensation programs (E-STIP and LTIP) provide that unvested awards / blocked shares unconditionally vest upon change of control (see [Compensation of the Executive Committee](#) section of the Remuneration Report).

Auditors

Duration of the Mandate and Term of Office of the Auditor in Charge

KPMG Ltd, Badenerstrasse 172, 8026 Zurich 4, Switzerland, has held the mandate as the external statutory auditors of Lonza Group Ltd and the Group since 1999.

The auditing company is elected for a term of one year. Michael Blume from KPMG Ltd has been the auditor in charge since April 2014. The Board of Directors proposes that KPMG Ltd be re-elected as auditors for the 2017 business year.

Auditing Honorarium

Lonza Group paid KPMG Ltd CHF 3.4 million in 2016 (2015: CHF 3.8 million) for professional services rendered in connection with the audit of the Group's annual financial statements and other audit-related activities.

Additional Honorarium

KPMG Ltd received a total fee of CHF 0.1 million in 2016 (2015: CHF 0.1 million) for services not related to the audit of Group's annual financial statements. These services related to tax consulting.

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 Ltd attended three Audit and Compliance meetings. In those meetings, the external auditors presented the 2016 audit strategy and their 2016 results. The Comprehensive Auditor's Report to the Board of Directors prepared by KPMG summarizes the reports presented to the Audit and Compliance Committee throughout the year.

Within the yearly 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 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 Ltd, 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 Ltd 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 also audited the Lonza Remuneration Report 2016 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 its [news site](#). Lonza's website also 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 reports directly to the Chief Human Resources Officer, while Investor Relations reports to the Chief Financial Officer. On basic matters of general corporate policy, Corporate Communications receives its directives from the Executive Committee.

Lonza makes the Annual Report, the Half-Year Results and Full-Year Results available to all interested parties as [PDF download](#). The invitation to the Annual General Meeting is published on Lonza's website and in the Swiss Official Gazette of Commerce. It is also sent by mail to the shareholders entered in the share register.

Lonza's website is regularly updated and provides relevant information such as share-price development, news releases and presentations.

Media conferences and analyst meetings generally take place at Lonza's headquarters or by conference call. Lonza manages an annual program of investor meetings. Investors, potential investors and financial analysts are also welcomed at Lonza's headquarters in Basel.

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 Lonza's website.

Upcoming Financial Events

Date and time	Event
25 April 2017, 10:00 am CET	Annual General Meeting for the 2016 Financial Year Congress Center Basel, Switzerland
26 April 2017	Q1 2017 Business Update
26 July 2017	Half-Year Report 2017
26 October 2017	Q3 2017 Business Update
24 January 2018	Full-Year Report 2017
4 May 2018, 10:00 am CET	Annual General Meeting for the 2017 Financial Year Congress Center Basel, Switzerland

About this Report

Lonza's Annual Report 2016 covers the period 1 January 2016 to 31 December 2016. In it we aim to present a balanced and concise overview of our strategy, performance and prospects.

The report is written for our employees, shareholders, customers, suppliers, business partners, community members, financial institutions, journalists, governmental and nongovernmental organizations and other stakeholders. It includes comprehensive information about Lonza's two main segments: Pharma&Biotech and Specialty Ingredients.

In the Company Overview section, we seek to provide a transparent summary of our corporate structure, practices and processes. Other sections of the Annual Report include the Financial Overview including financial statements and notes, the Remuneration Report and the Corporate Governance Report.

For the first time, Lonza's Annual Report 2016 is only an online report. In an effort to save paper, we adopted this format that allows readers to engage with the material online. By encouraging readers to go online first for background about Lonza in general and in 2016, we can reduce the number of hard copies of the report printed. All sections of the Annual Report – including the Corporate Overview, the Financial Report, Remuneration Report and Corporate Governance Report – are again being offered as a downloadable pdf.

Why Crystals?

The images of crystals woven throughout the Annual Report are a symbol of the solid growth that has characterized Lonza through our 120-year history. During their fascinating lifecycle, crystals begin by slowly transforming from the liquid state, as the crystalline components align, merge and grow into a solid state. During their second, more-rapid growth stage, the crystals grow upwards and outwards, creating the fascinating and strong crystalline lattice structure. These natural processes echo the way that Lonza grows, both through the organic growth of our existing businesses and by incorporating complementary businesses into the growing Lonza structure. We also associate crystals with snow and ice, which abound, of course, in the Swiss Alps, where Lonza was founded. In another tribute to our legacy, the pictures of crystals used in the Annual Report were taken by the photographer Gregor Brändli from the Minerals Collection at the Natural History Museum Basel (CH), which has long served as Lonza's headquarters. The crystals convey an inkling of the size of the mineralogical collection, whose treasures are guarded by the Natural History Museum Basel. A part of this can be admired in the permanent exhibition "Nature's showcase – birds, mammals & minerals of Switzerland". And just as crystals are prized for their unique and fascinating structures, so too Lonza is valued by our customers, our employees and our shareholders, all of whom recognize the strategic value and strength of the unique, solid and growing organization that we know as Lonza.

We hope you enjoy reading the Annual Report 2016!





Fluorit from Shangbao-Mine, Leiyang,
Province Hunan, China

©Gregor Brändli, Basel, Switzerland



Fluorit from Hunan, China

©Gregor Brändli, Basel, Switzerland



Malachit from Namibia

©Gregor Brändli, Basel, Switzerland



Fluorit, found by Todtnau
in Black Forest, Germany

©Gregor Brändli, Basel, Switzerland



Jordanit from by Lengnbach
in Valais, Switzerland

©Gregor Brändli, Basel, Switzerland

A close-up photograph of amethyst crystals. The crystals are purple and have a faceted, geometric appearance. In the bottom left corner, there is a pile of fine, white, crystalline powder. A dark blue diamond-shaped graphic is overlaid on the center of the image, containing the text 'lonza.com' in white.

lonza.com