

Chr. Hansen Holding A/S Bøge Allé 10-12, 2970 Hørsholm Denmark

Company reg. no. 28318677

www.chr-hansen.com



#### COVER

Together with our customers, we deliver innovative solutions that address global challenges by advancing food, health and productivity.

We are proud that more than one billion people consume a product with Chr. Hansen ingredients every day.

# ANNUAL REPORT 2017/18 CONTENTS

2017/18 IN BRIEF	
Highlights	4
Key figures	6
Letter to our Shareholders	7
STRATEGY AND AMBITIONS	
Business model	10
Strategy update	11
Long-term ambitions 2021/22	14
Outlook for 2018/19	15
BUSINESS PERFORMANCE	
Regions	18
Food Cultures & Enzymes	20
Health & Nutrition	22
Natural Colors	24
Financial review	26
RISK MANAGEMENT	
Risk management	30
GOVERNANCE	
Corporate governance	38
Board of Directors and Executive Board	41
Shareholder information	46
Management's statement on the Annual Report	49
Independent auditor's report	50
FINANCIAL STATEMENTS	
Financial statements – Group	57
Financial statements – Parent	115

# 2017/18 IN BRIEF ABOUT CHR. HANSEN

### NEW OPPORTUNITIES FOR NEXT GENERATION



## 2017/18 IN BRIEF **HIGHLIGHTS**

#### MAJOR EVENTS IN 2017/18

#### CORPORATE STRATEGY UPDATED ON APRIL 18, 2018



Chr. Hansen presented an updated corporate strategy. The name is still Nature's no. 1, but now with the subtitle 'Sustainably'. The lighthouse projects - bioprotection, Plant Health and the Human Microbiome – remain important strategic priorities. The financial ambition was also updated.

#### NEW CEO APPOINTED ON JUNE 1, 2018



On June 1, 2018, Mauricio Graber replaced Cees de Jong as CEO of Chr. Hansen. Mauricio Graber joined after 23 years with Givaudan, his most recent position being President of the Flavours Division.

#### NEW PRODUCTION CAPACITY INAUGURATED IN COPENHAGEN



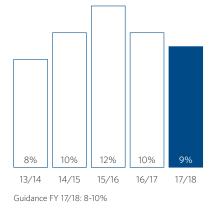
Following 18 months of construction, a significant expansion of the fermentation facility became operational significantly increasing capacity in the Food Cultures & Enzymes division. In the coming years, a series of investments will be made across the Group.

#### WE REALIZED PROFITABLE GROWTH IN 2017/18 AND REACHED THE MAIN TARGETS SET FOR THE YEAR

#### **ORGANIC GROWTH OF 9%**

Organic growth in 2017/18 was 9%, well in line with the target of 8-10% organic growth per year. Food Cultures & Enzymes grew by 12%, outperforming the long-term ambition of 7-8% per year.

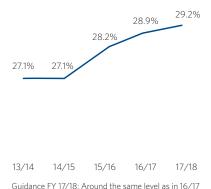
# Organic growth came in at mid-point of guidance range at 9%



#### EBIT MARGIN B.S.I. OF 29.2%

EBIT margin before special items was 29.2%, up 0.3%-point – in spite of heavy currency headwinds. The long-term ambition is to increase the margin to above 30%.

#### EBIT margin B.S.I. increased by 30BPS

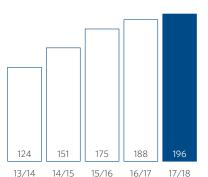


FREE CASH FLOW GROWTH OF 4%

(excluding special items and acquisitions)

Free cash flow before special items and acquisitions was EUR 196 million, corresponding to 4% growth. The long-term ambition is for a cumulative average growth rate of 10% over the period.

# Free cash flow B.S.I.A. increased by 4%



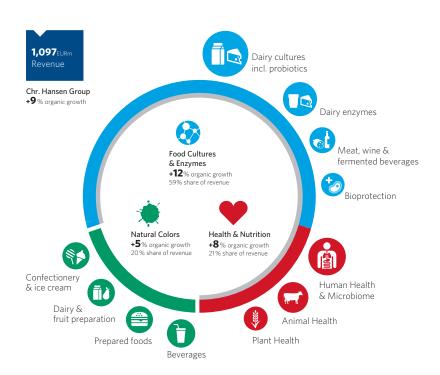
Guidance FY 17/18: Around the same level as in 16/17

### 2017/18 IN BRIEF

# WE REALIZED HIGH GROWTH RATES ACROSS OUR BUSINESS

In Food Cultures & Enzymes organic growth was strong, delivering 12%, with double-digit growth across most product segments, including bioprotective solutions and cultures for cheese and yogurt production.

In Health & Nutrition probiotics for infant formula grew strongly, while probiotics for dietary supplements declined slightly. Animal Health grew doubledigit, but not all regions grew equally. In Natural Colors, new products were launched in the FRUITMAX® range to support the growth, and sales momentum picked up during the year.



#### MARGIN IMPROVEMENTS OFFSET BY STRONG CURRENCY HEADWINDS

#### FOOD CULTURES & ENZYMES

The ramp-up of the new capacity progressed as planned and contributed positively to earnings.

#### **HEALTH & NUTRITION**

The margin increase was driven by Human Health and acquisition synergies, partly offset by currencies.

#### NATURAL COLORS

The margin decreased, partly due to currency impacts, but improved in the second half of the year.



Vet revenue 219 EURm (0% EUR growth) EBIT b.s.i. 26 EURm (12.0% margin)

Outer circle is share of revenue. Inner circle is share of EBIT b.s.i.

# 2017/18 IN BRIEF **KEY FIGURES**

EUR million	2017/18	2016/17	2015/16	2014/15	2013/14
Income statement					
Revenue	1,097.4	1,062.5	948.9	858.6	756.2
Gross profit	600.6	578.1	505.4	446.4	391.3
EBITDA before special items	384.0	368.1	324.0	286.4	256.6
EBIT before special items	320.2	307.1	267.8	232.5	204.8
EBIT	320.2	305.7	255.6	232.5	195.1
Net financial items	(24.1)	(14.8)	(16.2)	(12.8)	(13.8)
Profit for the year	228.2	224.0	183.8	162.5	132.2
Average number of employees (FTEs)	3,151	2,940	2,708	2,573	2,510
Financial position at August 31					
Total assets	1,861.1	1,802.1	1,715.3	1,444.6	1,374.9
Invested capital	1,631.5	1,581.1	1,445.0	1,247.0	1,213.8
Net working capital	189.1	174.8	147.4	138.1	129.8
Equity	771.6	768.5	730.3	600.8	656.8
Net interest-bearing debt	658.7	628.4	547.9	487.6	403.5
Cash flow and investments					
Cash flow from operating activities	302.4	283.7	244.8	221.5	176.4
Cash flow used for investing activities	(107.0)	(176.5)	(244.4)	(70.4)	(61.8)
Free cash flow	195.4	107.2	0.4	151.1	114.6
Free cash flow before special items and acquisitions	195.9	187.8	175.2	151.1	124.3
Acquisition and sale of property, plant and equipment, net	(87.9)	(88.4)	(56.6)	(55.0)	(49.6)
Earnings per share					
EPS, diluted	1.73	1.68	1.40	1.23	1.00
Key ratios					
Organic growth, %	9	10	12	10	8
Gross margin, %	54.7	54.4	53.3	52.0	51.7
EBITDA margin before special items, %	35.0	34.6	34.1	33.4	33.9
EBIT margin before special items, %	29.2	28.9	28.2	27.1	27.1
EBIT margin, %	29.2	28.8	26.9	27.1	25.8
ROIC excl. goodwill, %	38.0	40.1	39.7	37.6	34.9
ROIC, %	19.9	20.3	19.9	18.9	17.1
NWC, %	17.2	16.5	15.5	16.1	17.2
R&D, %	7.3	7.0	7.1	6.4	6.1
Capital expenditure, %	9.8	10.0	8.2	8.2	8.3
Cash conversion, %	64.8	62.8	73.2	72.5	67.0
Net debt to EBITDA before special items	1.7x	1.7x	1.7x	1.7x	1.6x

# 2017/18 IN BRIEF LETTER TO OUR SHAREHOLDERS

#### DEAR SHAREHOLDER,

2017/18 was an eventful year for Chr. Hansen. First of all, we achieved all the overall financial targets that we set at the beginning of the financial year. Organic growth was 9%, EBIT margin before special items grew to 29.2% and free cash flow before special items and acquisitions increased to EUR 196 million. We invested more than EUR 80 million in R&D and more than EUR 90 million in capacity expansions to exploit the many opportunities to leverage our technology platforms.

In Food Cultures & Enzymes, we again realized strong organic growth of 12%, with double-digit growth across most product segments, including bioprotective solutions and cultures for cheese and yogurt production. We also launched the second generation of bioprotective cultures, a technology tailored to countries with warm climates and less developed cooling infrastructure.

We inaugurated the new fermentation capacity in our Copenhagen facility at the beginning of the year, and it will serve as a base for further volume growth in the business over the next five years. We will continue to expand the downstream capacity over the next few years through a series of investments, which will drive further scalability for the benefit of the entire Group.

In Health & Nutrition, the 8% organic growth was lower than expected at the beginning of the year. Many different dynamics impacted the various segments of the business in both positive and negative directions, emphasizing the strength of having a diversified business. In Human Health, probiotics for infant formula grew strongly, while probiotics for dietary supplements declined slightly – mainly due to customers reducing inventories. Animal Health grew double-digit, but probiotics for cattle declined due to tough market conditions for US cattle farmers.

Plant Health also grew strongly, driven by fast-growing sales in Brazil from the new bionematicides, Quartzo® and Presence®. The Human Microbiome lighthouse saw positive developments, with very interesting progress in two projects: We announced a partnership with Prota Therapeutics to take a combination of LGG® and peanut protein through phase 3 trials to study the potential for treating peanut allergy. We also announced the results of an internal study on the potential for reducing side-effects from taking acetylsalicylic acid, using a carefully selected bacteria strain.

Natural Colors grew 5% organically, driven by Europe, the Middle East and Africa and Asia-Pacific, whereas North- and Latin America were flat. New products were launched in the FRUITMAX® range to support the continued conversion from synthetic colors to natural colors. We announced new investments in both US production facilities, as well as an expansion of our application development center in France. Finally, Klaus Bjerrum joined the company in August to lead the business area. The ambition in Natural Colors is to outgrow the market and improve the profitability.

#### ORGANIZATION

On June 1, 2018, Mauricio Graber replaced Cees de Jong as CEO of Chr. Hansen. Mauricio Graber joined after 23 years with Givaudan, his most recent position being President of the Flavours Division.

In 2017/18, the Core Scientists program in R&D reached a new stage of maturity and anchoring in the organization, with a stronger identification of core scientists and better processes to ensure internal knowledge sharing and succession planning for these positions. In 2018/19, the focus will be on leadership development, training 450 people managers. This supports our overall development agenda and focus on strengthening the internal succession planning for employees below the executive level. Again in 2017/18, we measured the company-wide engagement level of our colleagues, and the results were even better than the year before.

#### **CUSTOMERS IN FOCUS**

Every two years, we measure our customers' satisfaction through a major survey. As the financial year 2017/18 ended, we received the results of the survey, and they were very encouraging. Across all parameters – collaboration, delivery, product and tech support, value for money and complaints – we saw improvements when compared to the 2016 scores. The improvements were noticeable in all three business areas and in all geographical regions, improving on already strong scores. We believe that keeping customer satisfaction high by keeping them in focus is a strong advantage.

#### NATURE'S NO. 1 SUSTAINABLY

In April 2018, we presented the results of the strategy update work conducted by the executive management and the Board of Directors. Our strategy is called Nature's no. 1, and it has been the foundation of the results achieved over the past five years. The new sub-heading, Sustainably, refers to the sustainability of the strategy and business model, as well as our positive impact on sustainability and the UN Sustainability Development Goals.

### 2017/18 IN BRIEF

The strategic direction remains clear: leverage the full potential of Food Cultures & Enzymes, develop the microbial platform in Health and Nutrition, and create further value in Natural Colors. The financial ambition for the period until 2022 calls for organic revenue growth of 8-10% p.a., supported by 7-8% organic growth in Food Cultures & Enzymes. The ambition for EBIT margin before special items is to increase to above 30%, and the ambition for free cash flow before special items and acquisitions is to grow by a CAGR of 10%.

#### SUPPORTING MEGATRENDS

Consumers are asking for healthier and more natural food, cleaner labels and more sustainable food production value chains. The increasing global population calls for an increase in the world's food production, and this needs to happen in a sustainable manner to protect scarce resources such as water, forests and arable land. Crop farming must become more efficient, while at the same time reducing the use of pesticides and fertilizers to protect groundwater. Livestock production must be made more efficient, and the use of antibiotics as growth promoters must be reduced at the same time. Reducing food waste by extending shelf life or protecting food from spoiling is another way to provide more food for a growing population.

Chr. Hansen is well positioned at the intersection of these trends, and we can leverage our technological and commercial expertise to deliver value both to our customers and to consumers in general. We are convinced that our existing product portfolio and our three strategic lighthouses – bioprotection, Plant Health and the Human Microbiome – provide us with a great opportunity to sustain our strong organic growth.

#### SUSTAINABILITY

In 2017/18, Chr. Hansen, in a collaboration with PriceWaterhouseCoopers, pioneered a new methodology to calculate the relationship between product revenues and a positive impact on the 17 UN sustainability development goals. Chr. Hansen selected three of the 17 goals (Zero Hunger, Better Health, and Sustainable Production), which, according to the methodology, are supported by 81% of our revenue. In connection with the annual report process, the updated model brought the percentage to 82%. This enables us to bring a very powerful message to customers, employees and consumers alike; our products help to promote a more sustainable world.

You can read more about our progress on sustainability in our Sustainability Report 2017/18, which is available at www.chr-hansen.com/sustainability/reporting-and-disclosure.

#### CAPITAL STRUCTURE AND DIVIDEND

Our capital allocation principles remain unchanged and continue to prioritize investment in organic revenue growth and bolt-on acquisitions to support our existing business. The Company's ability to generate free cash flow remains strong, and excess cash will be distributed to shareholders. In July 2018, the Board of Directors decided to pay an extraordinary dividend of EUR 0.80 (DKK 5.94) per share, totaling EUR 105 million. To support an optimal capital structure, the Board of Directors proposes, subject to the approval of the Annual General Meeting, paying an ordinary dividend of EUR 0.87 (DKK 6.47) per share - or EUR 114 million - for the financial year 2017/18.

#### FOCUS 2018/19

In the coming year, the focus of the leadership team will be to continue to execute the Nature's no. 1 Sustainably strategy, which means continuing the journey to achieve the full potential of Chr. Hansen and to create value for customers, shareholders and other stakeholders in the process.

In Food Cultures & Enzymes, we will continue to drive penetration of bioprotective solutions across several food applications. We will also focus on broadening the product solutions to our customers – most of our dairy customers buy only one or two product categories from us, and we believe we can expand that number. Targeting continued conversion of cheese dairies is also in scope. Finally, we will begin – on a small scale – to experiment with offering digital services to our dairy customers.

In Health & Nutrition, our focus will be on launching new products in Human Health, and on strengthening our route-tomarket in Animal Health. In Plant Health, we will focus on expanding the use of Quartzo<sup>®</sup> and Presence<sup>®</sup> in Brazil through our partner, FMC, while continuing the work to document benefits in other crops. In the Human Microbiome, we will continue to advance the pipeline.

In Natural Colors, the focus will be on accelerating organic growth while maintaining healthy profitability and driving the conversion from synthetic colors to natural alternatives across all regions.

Our results in 2017/18 were strongly based on the commitment, engagement and passion of our colleagues. We would like to thank all our colleagues for their dedicated efforts in the past year, and we look forward to continuing the journey of executing the Nature's no. 1 Sustainably strategy.

Ole Andersen Chairman of the Board Mauricio Graber President & CEO

# ANNUAL REPORT 2017/18 STRATEGY & AMBITIONS

SUPPORTING THE UN SUSTAINABLE DEVELOPMENT GOALS



## STRATEGY AND AMBITIONS **BUSINESS MODEL**

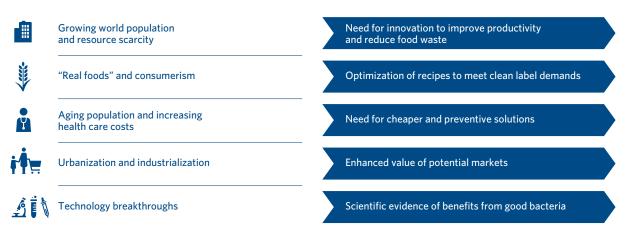
#### ATTRACTIVE, LONG-TERM OPPORTUNITIES SUPPORTED BY STRONG MEGA TRENDS

The Chr. Hansen business model builds on the Company's unique solutions and strong innovation platform, a scalable production setup and strong customer relationships. Chr. Hansen holds leadership positions in several attractive

#### The trend

niche markets, supported by several global trends that offer promising growth opportunities. Addressing global issues like reducing food waste and improving productivity in farming and food production are two clear examples of where Chr. Hansen can make a difference.

#### **Our opportunity**



#### **INHERENTLY SUSTAINABLE: 82% OF REVENUE CON-**TRIBUTES TO THE UN GLOBAL DEVELOPMENT GOALS

Social responsibility is an integral part of Chr. Hansen's vision to improve food and health for current and future generations. 82% of Chr. Hansen's revenue supports UN Global Goals 2, 3 and 12, with a positive impact on the environment as well as on animal and human well-being. This was the conclusion of a large-scale assessment of Chr. Hansen's entire product portfolio, conducted in 2017/18 and reviewed by PriceWaterhouseCoopers.

#### A SCALABLE PRODUCTION PLATFORM

Chr. Hansen holds significant competencies in upscaling production of bacterial strains to an industrial level. Production is managed centrally to ensure optimization of production facilities by serving the world from a consolidated production setup. Cultures for Food Cultures & Enzymes are produced at locations in Denmark, France, Germany and the US, while enzymes are produced in Denmark and Germany. Production of cultures for Health & Nutrition takes place at facilities in Denmark, Germany, the Czech Republic, and the US. Production for Natural Colors takes place at facilities in Brazil, China, Denmark, Italy, Peru and the US.



Share of Chr. Hansen's revenue contributing to UN Global Goals - reviewed by PWC



**Better farming** 

We help feed the

growing population

by promoting

sustainable

agriculture

Expand reach of

natural plant

protection by 25m hectares (2025)

#### **Good health**

We improve global health through healthier, safer and more products

Launch 6 new products with a documented health effect (2022)





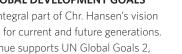
#### Less waste

We help customers reduce food waste and improve yield and productivity









## STRATEGY AND AMBITIONS STRATEGY UPDATE

#### SHARED R&D PLATFORM - THE MICROBIAL PLATFORM

Food Cultures & Enzymes and Health & Nutrition share a common research and production platform. The R&D platform is a process of screening, developing, and upscaling microbes. Production is the optimization of recipes, flows and infrastructure for the fermentation of microbes.

#### STRONG CUSTOMER RELATIONSHIPS

Chr. Hansen has strong and long-term strategic relationships with many of its customers, building on more than 140 years of experience. Solutions are often customized to meet customer demands, such as local taste preferences. Chr. Hansen's solutions offer an attractive cost-to-value ratio for customers, supporting their need for both process optimization and product innovation.

Chr. Hansen develops and maintains relationships with existing and new customers by providing a superior customer experience that builds on strong customer and consumer insights combined with local technical competencies. In more than 140 countries, Chr. Hansen offers its customers solutions that are adapted to local preferences and can be applied under local conditions. Customer relationships are often managed locally through a direct Chr. Hansen presence in key markets, supported by a global network of application and development centers. In some markets Chr. Hansen also works with a network of distributors and agents.

Dairy cultures incl. probiotics

Food Cultures

& Enzymes

Shared

Dairy enzymes

Meat wine

beverages

Human Health

& Microbiome

Animal Health

& fermented

Bioprotection

Chr. Hansen has a diverse customer base, serving large multinationals, regional and local customers, from farmers and dairies to other food & beverage manufacturers and pharmaceutical companies.

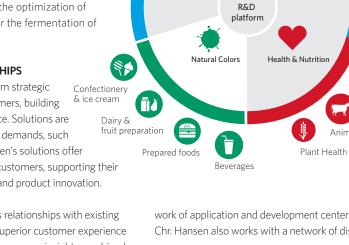
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#### STRONG CAPABILITIES IN EACH STEP OF THE VALUE CHAIN

The majority of Chr. Hansen's innovations derive from a strong bioscience technology platform based on in-depth capabilities. Scientific knowledge of bacterial strain properties, know-how of fundamental bioprocess engineering, and access to around 30,000 microbial strains allows for extensive screening and selection of the best available combinations of strains for new improved products and solutions.

Upscaling new cultures to be able to use industrial scale production is another competitive advantage, giving benefits of scalability and good production economics. Supporting customers in applying our technology is the final step in the value chain and helps to build customer satisfaction and loyalty and this leads to further discovery of new opportunities.



### STRATEGY AND AMBITIONS

#### STRATEGY UPDATE 2018: NATURE'S NO. 1 SUSTAINABLY

Chr. Hansen remains committed to the Nature's no. 1 strategy, launched in September 2013 and reaffirmed in April 2016. The strategy aims to capture the full potential of Chr. Hansen's core businesses while at the same time pursuing broader opportunities within microbial solutions by leveraging the company's strong technology platform. Maintaining market and technology leadership in established markets and developing new markets in adjacent areas remain clear priorities.

The sub-heading "Sustainably" refers to the sustainability of both the strategy and the business model – but also to the fact that the element of sustainability is becoming a more central element of the opportunities that will drive the business forward in the coming years. New technologies like bioprotection can help reduce food waste and increase food safety for the benefit of customers and consumers.

#### WHAT HAS CHANGED SINCE 'REAFFIRMED'?

Nature's no. 1 continues to focus on:

- Driving the penetration of new innovation
- Reinforcing position in growth markets
- Generating fuel for growth

Each business unit has separate focus areas that contribute to the overall company ambitions.

As part of the Nature's no. 1 strategy, Chr. Hansen will not:

- Expand organically or through acquisitions in areas unrelated to its existing businesses within microbial solutions and natural colors
- Expand enzyme business outside dairy
- Attempt to become a full-fledged pharma company
- · Lose focus on cost control and operational efficiency

# LEVERAGE THE FULL POTENTIAL OF FOOD CULTURES & ENZYMES

Chr. Hansen has many opportunities to continue to grow the core segment of dairy in Food Cultures & Enzymes. One example is to increase the market penetration of new products and concepts, like adding probiotics, bioprotection or developing low-lactose versions of dairy products. Other opportunities can be found in adjacent areas, for example in fermented beverages or in fresh foods.

The strong position in the market that Chr. Hansen has globally will be reinforced. We will continue to expand our market presence in growth markets, where closer proximity to key customers will be prioritized. This could be by expanding the sales organization, by adding more customer facing application support, and by offering regionally tailored concepts.

Finally, utilizing the newly expanded production capacity at our Copenhagen facility will support growth and drive scalability, and digitalizing core processes in production and R&D will increase efficiency.

	<b>S</b>	•	*
	Food Cultures & Enzymes	Health & Nutrition	Natural Colors
	Leverage the full potential of Food Cultures & Enzymes	Develop the microbial platform in Health & Nutrition	Create further value in Natural Colors
Drive penetration of new innovation	<ul> <li>Continue to prioritize core dairy business</li> <li>Develop adjuncts and adjacencies</li> <li>Drive bioprotection lighthouse to EUR 200m by 2025</li> </ul>	<ul> <li>Drive new products for Human Health (incl. Microbiome) and Animal Health</li> <li>Invest in Plant Health platform to unlock potential of EUR 100m by 2025</li> </ul>	<ul> <li>Expand FRUITMAX<sup>®</sup> range of coloring foodstuff</li> </ul>
Reinforce position in growth markets	<ul> <li>Further strengthen global market presence</li> <li>Application support in core adjacencies</li> </ul>	<ul> <li>Human Health: Expansion into emerging markets and growth segments</li> <li>Strengthen route-to-market in Ag businesses</li> </ul>	Drive US conversion and secure APAC growth
Generate fuel for growth	<ul><li>Drive scalability in supply chain</li><li>Digitalize core processes</li></ul>	Reinvest in future growth	Continue drive to restore     profitability

### STRATEGY AND AMBITIONS







Health & Nutrition

**Bioprotection** Bacterial solutions for food safety and freshness – target of EUR 200m by 2025

Plant Health Bacterial cultures for crop protection

- target of EUR 100m by 2025

Human Microbiome Next generation bacteria for Human Health Designated as lighthouse in 2016

Designated as lighthouse in 2013

Designated as lighthouse in 2013

# DEVELOPING THE MICROBIAL PLATFORM IN HEALTH & NUTRITION

Health & Nutrition's business areas are supported by global trends, such as the growing awareness of the adverse effects of antibiotics and chemical pesticides, resource scarcity, increasing health costs, and a growing scientific understanding of the benefits of "good bacteria."

Chr. Hansen has opportunities to expand and grow its businesses in Human- and Animal Health through innovation in the form of new strains and new applications, and further penetration with key customers and in new geographies. In the near term, new products will be launched in Human Health, whereas new products in Animal Health are expected towards the end of the period. For Animal Health, the primary nearterm focus is to further strengthen the global route-to-market.

In Plant Health, the recently launched products, Quartzo<sup>®</sup> and Presence<sup>®</sup>, will be the main growth drivers in the near and mid-term, through increased penetration in the sugar cane industry via our partner, FMC. Applications for other crop types are currently in trial phases.

Within the Human Microbiome area, Chr. Hansen sees significant potential to support partners in upscaling and establishing production processes.

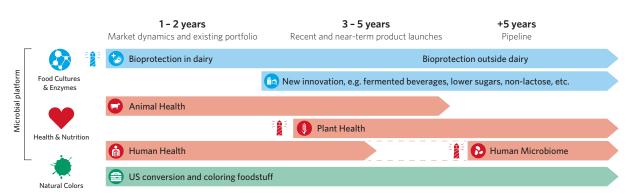
Chr. Hansen will pursue bolt-on acquisitions where this will support existing business areas.

#### CREATING FURTHER VALUE IN NATURAL COLORS

Increased regulation and growing consumer awareness are fueling demand for natural colors in place of synthetics. Conversion to natural colors is progressing in all regions at varying paces, and growth prospects remain attractive.

Chr. Hansen will focus on balancing the goal of growing faster than the underlying natural colors market and increasing the profitability of the business. New investments in production and application development facilities will create a stronger business.

#### MICROBIAL PLATFORM IS A KEY DRIVER FOR STRONG GROWTH



# STRATEGY AND AMBITIONS LONG-TERM AMBITIONS 2021/22

#### FINANCIAL AMBITIONS THROUGH 2021/22 Organic revenue growth

Organic revenue growth rate of 8-10% per year is expected supported by all business areas, with average organic growth of 7-8% in Food Cultures & Enzymes.

#### EBIT margin before special items

The EBIT margin before special items is expected to increase to above 30%.

This improvement will be driven by a continued focus on maintaining cost discipline and on productivity and efficiency gains across the organization, to some extent offset by investments in innovation, emerging markets and in exploring new growth opportunities.

#### Free cash flow

Free cash flow before acquisitions, divestments and special items is expected to increase at a compound annual growth rate of around 10% over the period, compared to the base year 2016/17 (EUR 188 million).

The ambitions for the EBIT margin and free cash flow are sensitive to currency exchange rate fluctuations.

#### SUSTAINABILITY AMBITIONS BY 2021/22 Commercial targets

Chr. Hansen's sustainability strategy focuses on how the Company's natural products can help address global trends and challenges. The strategy focuses on three areas where Chr. Hansen has the largest impact:

#### Better farming

Help feed the growing population by promoting sustainable agriculture using Chr. Hansen's biological Plant Health solutions and silage inoculants. By 2024/25, the ambition is to expand the reach of Chr. Hansen's natural Plant Health solutions to have reached an accumulated 25 million hectares of farmland.

#### Less waste

Help customers reduce food waste through Chr. Hansen's bioprotection solutions and enzyme technology. By 2021/22, the ambition is to reduce global yogurt waste by 2%, equivalent to 1,200,000 tons accumulated.

#### Good health

Improve global health through probiotics and healthier and safer food ingredients. For 2021/22, the ambition is to have launched six new products with a documented health effect.

#### **Operational targets**

As part of the strategy review and to reduce the environmental footprint of its own operations, Chr. Hansen revised its 2021/22 operational targets for health and safety, energy, water, CO2 and waste recycling. Compared to the base year 2013/14, Chr. Hansen is aiming for:

- 20% energy and water efficiency improvement
- 25% CO2 efficiency improvement
- 40% waste recycling

A full report on sustainability and progress on commercial and operational targets during 2017/18 can be found at www.chr-hansen.com/sustainability/reporting-and-disclosure.

### STRATEGY AND AMBITIONS OUTLOOK FOR 2018/19

#### **ORGANIC REVENUE GROWTH**

For 2018/19, organic revenue growth is expected to be 9-11%, positively impacted by a high EUR price effect.

Food Cultures & Enzymes is expected to grow above the longterm ambition of 7-8% organic growth, with the additional growth driven by a high EUR price impact. Health & Nutrition is expected to grow organically at 10% or above, while Natural Colors is expected to grow organically between 6-10%.

#### EBIT MARGIN BEFORE SPECIAL ITEMS (B.S.I.)

The EBIT margin b.s.i. is expected to be around 29.5%. Increased utilization of production capacity in Food Cultures & Enzymes will have a positive impact on the margin. The positive margin development is expected to be partly offset by increased investments into the lighthouse projects and other strategic priorities.

#### FREE CASH FLOW

Free cash flow before acquisitions, divestments and special items is expected to be around the EUR 196 million realized in 2017/18. This expectation assumes lower growth in cash flow from operating activities than growth of EBIT before special items, due to higher taxes paid in 2018/19 mainly related to the absence of acquisition-driven tax benefits realized in 2017/18. Cash flow used for operational investment activities will be at a relatively high level and is expected to be between EUR 110-130 million. This includes multiple investments across the group, and also assumes a successful sale-and-lease-back of the company's main site in Hørsholm in Q4 2018/19.

#### ASSUMPTIONS

The outlook is based on constant currencies and stable raw material prices and assumes no acquisitions. The outlook is also based on the current political and economic environment, although there is a risk of increased political and economic uncertainty – e.g. the economic climate in the Middle East and Latin America, and trade tensions between large economies. Any deterioration in these situations might impact the outlook.

#### SENSITIVITY

Chr. Hansen is a global company serving more than 140 countries through subsidiaries in more than 30 countries.

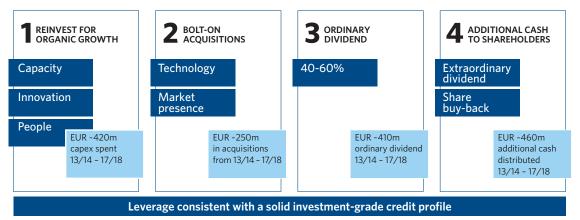
The most significant exchange rate exposure relates to USD, which accounts for 25-30% of revenue, while the exposure to other currencies is more modest. A 5% decrease in the USD exchange rate impacts revenue measured in EUR negatively by around EUR 15-20 million.

Organic revenue growth is sensitive to exchange rate fluctuations in currencies for which Chr. Hansen applies a EURbased pricing model, and to changes in raw material prices for natural colors as some contracts are adjusted for movements in raw material prices.

The EBIT margin is also sensitive to exchange rate fluctuations and to changes in raw material prices for natural colors. Production in the US and sourcing in USD only partly offset the impact on revenue from changes in the USD exchange rate. Therefore, the relative EBIT exposure is higher than the 25-30% revenue exposure. A 5% decrease in the USD exchange rate would impact EBIT negatively by roughly half of the revenue impact.

The sensitivity to currency also applies to free cash flow.

The use of currency hedging of balance sheet exposures and future cash flows is described in note 4.3 to the Consolidated Financial Statements 2017/18.



#### CAPITAL ALLOCATION PRIORITIES

## ANNUAL REPORT 2017/18 BUSINESS PERFORMANCE

### ENABLING CLEANER FOOD AND BEVERAGE PRODUCTS



### BUSINESS PERFORMANCE **REGIONS**

With customers in more than 140 countries and offices in more than 30 countries around the world, Chr. Hansen has organized its sales operations in four regions:

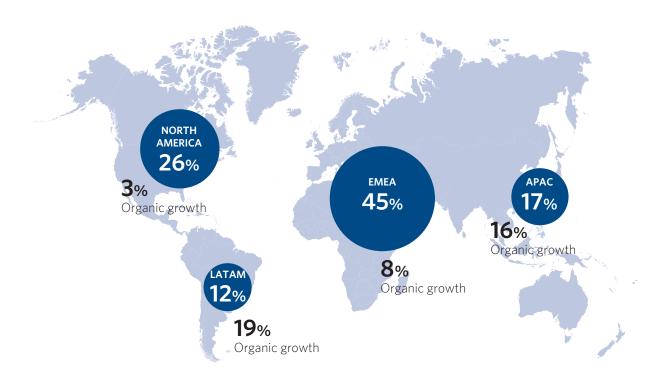
- EMEA (Europe, Middle East and Africa)
- North America
- APAC (Asia-Pacific)
- LATAM (Latin America)

#### EMEA

The EMEA region accounted for 45% of revenue, compared to 44% in 2016/17. Organic growth was 8%, and adjusting for a negative currency impact of 2%, corresponded to a revenue increase of 6%. Organic growth was driven by strong growth in Food Cultures & Enzymes and Animal Health, and Natural Colors showed solid growth. Human Health declined due to inventory reductions at a key customer in infant formula.

#### NORTH AMERICA

The North American region accounted for 26% of revenue, compared to 28% in 2016/17. Organic growth was 3%, and adjusting for a negative currency impact of 8%, corresponded to a revenue decrease of 5%. Organic growth was driven by solid growth in Food Cultures & Enzymes and Animal Health, while Human Health declined and Natural Colors was flat.



#### APAC

The APAC region accounted for 17% of revenue, compared to 15% in 2016/17. Organic growth was 16%, and adjusting for a negative currency impact of 4%, corresponded to a revenue increase of 12%, mainly driven by China. Organic growth was driven by strong growth in Health & Nutrition and Natural Colors, while Food Cultures & Enzymes showed solid growth.

#### LATAM

The LATAM region accounted for 12% of revenue, compared to 13% in 2016/17. Organic growth was 19%, and adjusting for a negative currency impact of 17%, corresponded to a revenue increase of 2%. Organic growth was driven by strong growth in Food Cultures & Enzymes, Animal Health and Plant Health, while Natural Colors was flat.



With the increasing middle class in growth markets, consumer demands for safe, healthy and tasty food are on the rise. Convenience and authenticity are other important consumer drivers.

# BUSINESS PERFORMANCE FOOD CULTURES & ENZYMES

EUR million	2017/18	2016/17
Revenue	647.2	617.5
Organic growth	12%	9%
EBITDA	261.1	249.5
EBIT	222.2	213.1
EBIT margin	34.3%	34.5%
ROIC excluding goodwill	45.6%	47.1%

Food Cultures & Enzymes supplies cultures, probiotics and enzymes for the food industry in general and the dairy industry in particular. Chr. Hansen's ingredients help determine the taste, texture, flavor, nutritional value, health benefits and shelf life of a wide variety of end products. Chr. Hansen also assists customers in optimizing production processes, increasing yields, and improving the quality and safety of their products.

Chr. Hansen is the global market leader in cultures and enzymes for the dairy market and has consistently outperformed end-market growth.

The dairy market continues to hold attractive growth opportunities, driven by fundamental category growth (not least in emerging markets), continued conversion, and catering to consumer and customer needs for better functionality and yield. While the dairy market remains the key market for Food Cultures & Enzymes and the existing business in meat and wine are important, the introduction of bioprotective solutions to preserve and protect fresh food, has provided new market opportunities, which we continue to pursue and develop.

#### FUNDAMENTAL GROWTH

According to the Company's own estimates and based on volume, the global market for fermented milk grew by around 3% in 2017/18, driven by Asia-Pacific, the Middle East and Africa, while certain key markets in the EU showed little or no growth, and the US declined slightly. The market for cheese is estimated to have grown slightly above 2%, driven by high production in the US.

#### CONVERSION

Based on industrialized production volume, Chr. Hansen estimates that around 80% of the fermented milk market and slightly more than 50% of the cheese market had converted from bulk starter to Chr. Hansen's industrialized DVS® cultures or similar technologies by the end of 2017/18. Chr. Hansen expects growth from continued conversion in the future, and there are still remaining conversion opportunities in cheese.

#### INNOVATION

A significant part of the growth contribution in Food Cultures & Enzymes comes from innovation. Chr. Hansen seeks new ways to create innovative products using the existing library of microbial strains. New combinations of strains can help customers to meet consumer demand for low sugar, lactose, salt or fat; distinctive texture and flavors; and clean-label products, and to adapt solutions to local taste preferences.

New generations of acidifying cultures, or product specific cultures, such as cultures for soft cheese are launched every year. In 2017/18 Chr. Hansen launched a product range for the new segment of plant-based dairy alternatives. While this segment is still small, if the consumer interest is there, Chr. Hansen is prepared to deliver the right products to the customers.

	Strategic Focus Areas	Progress 2017/18	Focus 2018/19
Drive penetration of new innovation	<ul> <li>Continue to prioritize core dairy business</li> <li>Develop adjuncts and adjacencies</li> <li>Drive bioprotection lighthouse to EUR 200m by 2025</li> </ul>	<ul> <li>Bioprotection grew 35%, driven by 1st gen.in dairy</li> <li>2nd gen. bioprotection success- fully introduced</li> </ul>	<ul> <li>Continue to drive penetration of new products, e.g. bioprotection</li> <li>Cross-sell and develop adjacent areas</li> </ul>
Reinforce position in growth markets	<ul> <li>Further strengthen global market presence</li> <li>Application support in core adjacencies</li> </ul>	<ul> <li>Strong growth in APAC and solid growth in LATAM</li> <li>Expanded local customer sup- port teams and infrastructure</li> </ul>	<ul> <li>Strengthen attention to key accounts</li> <li>Invest in and strengthen local footprints</li> <li>Push market-specific new product development</li> </ul>
Generate fuel for growth	<ul><li>Drive scalability in supply chain</li><li>Digitalize core processes</li></ul>	<ul><li>Scalability impacts from new expansion</li><li>Excellent delivery performance</li></ul>	<ul> <li>Leverage new expansion</li> <li>Upgrade e-commerce solution</li> <li>New digital services</li> </ul>

Optimization of the customers' production processes and distribution is addressed through innovative solutions that improve yield or efficiency.

Chr. Hansen also continues to optimize its own production processes, for example by increasing fermentation yields and increasing automation of manual processes.

#### PRODUCTION

During 2017/18, Chr. Hansen finalized the expansion of fermentation and downstream capacity in Copenhagen, doubling the potential output of the facility. The expansion has been brought into use and is ramping up utilization as volumes increase. Larger fermentation scale will lead to scalability benefits – "Fuel for growth" – and more flexibility in production. Expansion of the packaging capacity for freeze-dried and powdered products in Copenhagen has been initiated and will continue into 2018/19.

#### REVENUE

Organic growth was 12%, and adjusting for a negative currency impact of 7%, corresponded to a revenue increase of 5% to EUR 647 million. The contribution from volume was 8%, while the contribution from pricing was around 4%, mostly driven by the EUR-price list.

Organic growth was positively impacted by double-digit growth in cheese, fermented milk, meat and enzymes, while probiotics grew slightly.

Bioprotective cultures delivered organic growth of approximately 35%, driven by the existing segments within fermented milk, cheese and meat. Bioprotection constituted around 7% of the Food Cultures & Enzymes business in 2017/18.

16/17

9% 34.5% 15/16

12%

34.3%

#### EBIT

EBIT amounted to EUR 222 million, compared to EUR 213 million in 2016/17. The EBIT margin was 34.3%, down 0.2%-point on 2016/17, driven by adverse currency impacts. The ramp-up of the new capacity progressed as planned, and a positive contribution was realized in the second half of the year, more than offsetting costs associated with the expansion incurred in the first half.

#### ROIC EXCLUDING GOODWILL

The return on invested capital excluding goodwill was 45.6%, compared to 47.1% in 2016/17, mainly due to currency impacts negatively affecting EBIT. Invested capital excluding goodwill increased by EUR 32 million, or 7%, to EUR 504 million. The increase was mainly due to investments in production capacity.



FOOD CULTURES &	
ENZYMES	17/18
ODG ANUG GDOM/TU	120/

ORGANIC GROWTH	12
EBIT MARGIN	34.3

## BUSINESS PERFORMANCE HEALTH & NUTRITION

EUR million	2017/18	2016/17
Revenue	230.9	224.7
Organic growth	8%	14%
EBITDA	89.4	83.5
EBIT	71.6	65.5
EBIT margin	31.0%	29.2%
ROIC excluding goodwill	29.0%	29.8%

#### HUMAN HEALTH

The role of beneficial bacteria in humans is widely acknowledged globally, and Chr. Hansen is a leader in the development and production of probiotics for dietary supplements and infant formula.

Market conditions for human probiotic dietary supplements remained favorable in 2017/18, although growth in the North American market slowed down. Organic growth in Human Health was driven by strong growth in both dietary supplements and infant formula in Asia-Pacific and Latin America, and by strong growth in infant formula in North America. This was partly offset by key customer inventory reductions in dietary supplements in North America (and to a lesser extent a challenging market) and infant formula in Europe, Middle East and Africa.

Chr. Hansen continuously invests in providing clinical evidence of the health benefits of its products, strengthening its GMP manufacturing competencies, and developing innovative formats and product combinations that ensure superior stability of live bacteria in a range of settings.

#### HUMAN MICROBIOME

Based on its core competencies within microbial research and production, Chr. Hansen explores and develops opportunities related to the Human Microbiome. Chr. Hansen seeks to build relationships and collaborations with the companies and research institutions that are the most advanced in this area to identify the most attractive microbes for various health endpoints and to find production and formulation processes for these microbes.

In 2017/18, Chr. Hansen announced two exciting development in this area. The first development is a new partnership with Prota Therapeutics to test the world's most documented probiotic strain LGG® in a Phase III clinical trial to potentially develop a treatment for peanut allergy. Chr. Hansen will provide LGG® for Prota to conduct the trial. The second development is an exciting result from a Chr. Hansen-led clinical trial demonstrating that ingestion of a carefully selected probiotic strain can reduce the side effects related to regular consumption of acetylsalicylic acid – the active ingredient in aspirin. Chr. Hansen owns all rights to this discovery. More clinical trials are needed to further investigate the potential of the strain and the commercial opportunities are still being assessed.

#### ANIMAL HEALTH

With a growing world population, there is a long-term need to increase productivity in the agricultural industry while at the same time reducing the use of antibiotic growth promoters in the livestock industry. Chr. Hansen's microbial concepts for animal feed and silage support farmers in addressing these challenges.

In 2017/18, the markets for microbial solutions in the agricultural industry were impacted by fluctuating meat, milk and feed prices. In Europe, this was to some extent driven by the

	Strategic Focus Areas	Progress 2017/18	Focus 2018/19
Drive penetration of new innovation	<ul> <li>Drive new products for Human Health (incl. Microbiome) and Animal Health</li> <li>Invest in Plant Health platform to unlock EUR 100m potential by 2025</li> </ul>	<ul> <li>Good progress on new product development</li> <li>Launch of two products in Bra- zil, renegotiated collaboration terms with FMC</li> </ul>	<ul> <li>Launch new products in Human Health</li> <li>Expand Plant Health business to new countries and crops</li> </ul>
Reinforce position in growth markets	<ul> <li>Human Health: Expansion into emerging markets and growth segments</li> <li>Strengthen route-to-market in Ag businesses</li> </ul>	<ul> <li>Strong organic growth in Human and Animal Health in Asia-Pacific and Latin America</li> </ul>	<ul> <li>Continue growth momentum in all segments</li> <li>Further expand Animal Health commercial footprint in Asia-Pacific and Latin America</li> </ul>
Generate fuel for growth	• Reinvest in future growth	Efficiencies in production	<ul> <li>Scalability and efficiencies in production</li> </ul>

unusually hot weather over the summer, and in the US, low milk prices created a difficult environment for dairy farmers. The poultry market continued to be driven by an increasing demand for antibiotic free meat, which creates good conditions for probiotics. Competition is still increasing slightly in parts of the market.

#### PLANT HEALTH

Plant and crop producers also need to improve productivity and find more sustainable solutions to replace the use of chemical products.

In 2017/18, Chr. Hansen and FMC Corporation launched two new products, Quartzo<sup>™</sup> and Presence<sup>™</sup>, in the Brazilian market. Quartzo<sup>™</sup> is a bionematicide applied in the soil at planting, while Presence<sup>™</sup> is the first commercially available biological nematicide seed treatment product in the portfolio. Both products are crop agnostic and marketed by FMC Corporation. In addition, Chr. Hansen and FMC Corporation continue to conduct a significant number of field trials to build knowledge around the efficacy of the products in new applications. Product registrations in other geographies were also undertaken.

#### REVENUE

Organic growth was 8%, and adjusting for a negative currency impact of 5%, corresponded to a revenue increase of 3% to EUR 231 million, driven by volume/mix. Animal Health and Plant Health realized strong growth, while Human Health delivered good growth.

Organic growth in Human Health was driven by strong growth in infant formula in Asia-Pacific and North America and by dietary supplements in Asia-Pacific. Dietary supplements in North America, and infant formula in Europe, Middle East and Africa, declined due to order patterns and inventory reductions with customers. Animal Health was positively impacted by strong growth in silage and solid growth in swine and poultry. The cattle segment declined due to difficult market conditions for cattle farmers in the US.

Plant Health benefited strongly from the new product introductions in Brazil.

#### EBIT

EBIT amounted to EUR 72 million, compared to EUR 66 million in 2016/17. The EBIT margin was 31.0%, up 1.8%-points on 2016/17. The increase was driven by a positive product mix in Human Health, lower scrap, and synergies from the NPC and LGG<sup>®</sup> acquisitions, partly offset by currency.

#### ROIC EXCLUDING GOODWILL

The return on invested capital excluding goodwill was 29.0%, compared to 29.8% in 2016/17. Invested capital excluding goodwill increased by EUR 18 million, or 7%, to EUR 256 million, driven by investments in production capacity and Nature's no.1 initiatives.



HEALTH & NUTRITION	17/18	16/17	15/16
ORGANIC GROWTH	8%	<b>14</b> %	2%
EBIT MARGIN	31.0%	<b>29.2</b> %	28.3%

EUR million	2017/18	2016/17
Revenue	219.3	220.3
Organic growth	5%	10%
EBITDA	33.5	35.1
EBIT	26.4	28.5
EBIT margin	12.0%	12.9%
ROIC excluding goodwill	24.6%	30.3%

Natural Colors supplies natural color solutions for the food industry, in particular the beverage, confectionery, ice cream, dairy, fruit preparation and prepared food segments. Color pigments are extracted from natural sources, such as berries, roots and seeds, and Chr. Hansen uses a number of encapsulation techniques that help to stabilize the appearance of colors in various food applications.

In recent years, consumer demand for more natural products has increased in both developed and emerging markets. Chr. Hansen is well positioned to capture these opportunities by providing improved cost-in-use solutions, addressing the significant potential in North America and emerging markets, and developing an enhanced product offering.

#### CONVERSION

Increased consumer demand for natural and clean-label products, combined with stricter regulation of the use of synthetic solutions in food & beverages, especially in the EU, has led to a conversion from synthetic colors to natural solutions. In 2017/18, the conversion to natural colors continued in North America, Latin America and Asia-Pacific, while the European market experienced increasing penetration of more advanced natural color solutions. In EMEA, several non-EU countries have adopted regulations similar to those in the EU regulating the use of synthetic colors, which has driven growth.

#### **PRODUCT RANGE**

Chr. Hansen works continuously on improving its products, especially within the FRUITMAX® range of coloring foodstuffs. Coloring foodstuffs, processed from edible, natural sources such as fruit and vegetables, give food manufacturers the opportunity to color food with food, for example juices or concentrates. In 2017/18, two new products were launched in the FRUITMAX® range, and coloring foodstuffs delivered double-digit growth.

#### SOURCING

Chr. Hansen sources a wide range of natural raw materials through a global sourcing network. During the year, Chr. Hansen continued its efforts to improve standards and farm yields at raw material suppliers as well as expanding the number of strategic suppliers for key pigments. This helps to ensure sustainable sourcing opportunities and deliver improved cost-in-use solutions for customers.

	Strategic Focus Areas	Progress 2017/18	Focus 2018/19
Drive penetration of new innovation	<ul> <li>Expand FRUITMAX<sup>®</sup> range of coloring foodstuff</li> </ul>	<ul> <li>Launched FRUITMAX<sup>®</sup> oil soluble range for applications in key regions</li> </ul>	Portfolio expansion within coloring foods
Reinforce position in growth markets	<ul> <li>Drive US conversion and secure APAC growth</li> </ul>	<ul> <li>Successful expansion into food service segment</li> </ul>	<ul> <li>Driving conversion projects in partnerships with our customers</li> </ul>
Generate fuel for growth	Continue drive to restore profita- bility	<ul> <li>Streamlined product portfolio</li> <li>Strengthened operational processes to enable scalability of the business</li> </ul>	<ul> <li>Investments in new capacity (U.S.) and continuation of efficiency programs</li> </ul>

Purchase prices for certain raw materials can be very volatile due to the informal nature of the markets. Annatto and carmine prices have been relatively stable in 2017/18, with prices of both declining.

#### **OPERATIONAL OPTIMIZATION INITIATIVES**

As part of the Nature's no. 1 strategy, Chr. Hansen focused on profitable growth in Natural Colors. Initiatives to optimize pricing, production yields, the product portfolio and transportation costs have contributed positively to the improvement in the EBIT margin in from 2015/16 to 2017/18. Over the last three years, this project has contributed significantly to the improvement in the EBIT margin in Natural Colors from 8.3% to 12.0%.

#### REVENUE

Organic growth was 5%, and adjusting for a negative currency impact of 5%, corresponded to a revenue of EUR 219 million, which was on par with last year. The momentum in the business improved from the first half of the year to the second half, with 4% organic growth in the first half and 6% in the second half.

Organic volume growth was primarily driven by strong growth in the FRUITMAX<sup>®</sup> product range, in Asia-Pacific and Europe, the Middle East and Africa. North America and Latin America were flat.

#### EBIT

EBIT amounted to EUR 26 million, compared to EUR 29 million in 2016/17. The EBIT margin was 12.0%, down 0.9%-point on 2016/17. The decrease was due to currency impacts, a negative impact from raw materials, including timing of inventories, and a negative impact from management changes in Q2, but offset somewhat by the higher sales growth in the second half of the year.

#### ROIC

The return on invested capital was 24.6%, compared to 30.3% in 2016/17. The invested capital increased by EUR 6 million, or 6%, to EUR 110 million, driven by higher inventories.



NAT	URAL	COLORS

ORGANIC GROWTH

12.0%	10% 12.9%	10.9%
5%	10%	19%
17/18	16/17	15/16

# BUSINESS PERFORMANCE FINANCIAL REVIEW

#### REVENUE

Organic growth was 9%, and adjusting for a negative currency impact of 6%, corresponded to a revenue increase of 3% to EUR 1,097 million.

Organic growth was primarily driven by volume/mix effects, with around 2% coming from pricing. The price increases were mainly achieved by using EUR-based pricing in certain countries to protect EBIT from depreciating currencies.

REVENUE	2017/18
Organia growth (val (miv)	70/
Organic growth (vol/mix)	7%
Organic growth (price)	2%
Organic growth	9%
Currencies	-6%
EUR growth	3%

#### **GROSS PROFIT**

Gross profit was EUR 601 million, up 4% on 2016/17. The gross margin increased by 0.3%-point to 54.7%, driven by improvements in Health & Nutrition due to favorable product mix more than offsetting adverse currencies.

#### **OPERATING EXPENSES (% OF REVENUE)**

Operating expenses totaled EUR 280 million (25.6%), compared to EUR 271 million (25.5%) in 2016/17.

Research & development (R&D) expenses, including amortization and depreciation, amounted to EUR 73 million (6.7%), compared to EUR 71 million (6.7%) in 2016/17.

The net impact of capitalization less amortization and impairment of development costs was EUR 7 million (0.6%), compared to EUR 3 million (0.3%) in 2016/17.

Total R&D expenditures incurred increased by 7% to EUR 80 million (7.3%), compared to EUR 75 million (7.0%) in 2016/17.

The increase was driven by Nature's no. 1 initiatives, including bioprotection and LGG $^{(\!8\!)}$ , while currency impacted the increase relative to topline.

Sales & marketing expenses amounted to EUR 139 million (12.7%), compared to EUR 134 million (12.6%) in 2016/17. The increase was mainly driven by strategic initiatives to support Nature's no. 1.

Administrative expenses amounted to EUR 70 million (6.4%), compared to EUR 71 million (6.7%) in 2016/17.

Net other operating income/expenses was an income of EUR 3 million, compared to EUR 5 million in 2016/17. The income in 2016/17 was mainly driven by the sale of a property in Argentina.

#### **OPERATING PROFIT (EBIT) BEFORE SPECIAL ITEMS**

EBIT before special items amounted to EUR 320 million, compared to EUR 307 million in 2016/17, an increase of 4%. The increase was mainly due to the higher gross profit, partly offset by a substantial adverse impact from currencies.

The EBIT margin before special items was 29.2%, up from 28.9% in 2016/17, driven by underlying improvements in Food Cultures & Enzymes and Health & Nutrition, and offset by negative currency and slightly lower margin in Natural Colors.

#### SPECIAL ITEMS

Special items were nil compared to EUR 1 million in 2016/17.

#### **OPERATING PROFIT (EBIT)**

EBIT amounted to EUR 320 million, compared to EUR 306 million in 2016/17, an increase of 5%. The EBIT margin was 29.2%, compared to 28.8% in 2016/17.

#### NET FINANCIALS AND TAX

Net financial expenses amounted to EUR 24 million, compared to EUR 15 million in 2016/17. The net interest cost was EUR 11 million, up from EUR 10 million in 2016/17.

The net impact from exchange rate adjustments was a negative EUR 12 million, compared to a negative EUR 3 million in 2016/17. The negative impact related mainly to unrealized losses from the depreciation of the Argentine, Brazilian, Chinese and Turkish currencies.

Income taxes were EUR 68 million, equivalent to an effective tax rate of 22.9%, compared to EUR 67 million and 23.0%, respectively, in 2016/17.

#### PROFIT FOR THE YEAR

Profit for the year increased by 2% to EUR 228 million, up from EUR 224 million in 2016/17.

#### ASSETS

At August 31, 2018, total assets amounted to EUR 1,861 million, compared to EUR 1,802 million a year earlier. The increase was mainly due to investments in the microbial production platform and higher net working capital.

Total non-current assets amounted to EUR 1,450 million, compared to EUR 1,415 million at August 31, 2017. Intangible assets decreased by EUR 14 million, while property, plant and equipment increased by EUR 50 million.

Total current assets amounted to EUR 411 million, compared to EUR 388 million at August 31, 2017. Inventories increased by EUR 12 million, or 9%, and receivables by EUR 16 million, or 9%. Cash decreased by EUR 4 million to EUR 69 million.

#### NET WORKING CAPITAL

Net working capital was EUR 189 million, or 17.2% of revenue, compared to EUR 175 million, or 16.5%, in 2016/17, which was driven by higher inventories following the capacity ramp-up in Copenhagen and higher trade receivables, partly due to mix.

#### EQUITY

Total equity amounted to EUR 772 million at August 31, 2018, compared to EUR 769 million a year earlier. An ordinary dividend for the financial year 2016/17 totaling EUR 112 million was paid in December 2017, and an extraordinary dividend for the financial year 2017/18 totaling EUR 105 million was paid in July 2018.

#### NET DEBT

Net interest-bearing debt amounted to EUR 659 million, or 1.7x EBITDA, compared to EUR 628 million, or 1.7x EBITDA, at August 31, 2017.

#### **RETURN ON INVESTED CAPITAL (ROIC)**

The return on invested capital excluding goodwill was 38.0%, compared to 40.1% in 2016/17, due to higher invested capital, and a relatively higher negative currency impact on EBIT compared to invested capital. Invested capital excluding goodwill increased to EUR 870 million, compared to EUR 814 million at August 31, 2017. The increase was mainly due to investments in the microbial platform.

The return on invested capital including goodwill was 19.9%, compared to 20.3% in 2016/17. Invested capital including goodwill increased to EUR 1,632 million, compared to EUR 1,581 million at August 31, 2017.

#### **CASH FLOW**

Cash flow from operating activities was EUR 302 million, compared to EUR 284 million in 2016/17. The increase was driven by the improved operating profit and non-cash adjustments, offset by the changed Danish export credit scheme, which impacted working capital negatively.

Cash flow used for operational investing activities was EUR 107 million, or 9.8% of revenue, compared to EUR 104 million, or 9.7% of revenue, in 2016/17.

Free cash flow before acquisitions, divestments and special items was EUR 196 million, compared to EUR 188 million in 2016/17.

## ANNUAL REPORT 2017/18 **RISK MANAGEMENT**

### SCIENTIFICALLY DOCUMENTED GOOD BACTERIA



# RISK MANAGEMENT RISK MANAGEMENT

Enterprise Risk Management is an integral part of doing business at Chr. Hansen. The objective of enterprise risk management is to support the achievement of the Natures no. 1 strategy objectives, while managing risks appropriately.

In 2017/18, Chr. Hansen adopted an enterprise risk management position stipulating how the Company works with enterprise risk as a concept and how this is integrated into Chr. Hansen's business processes. To execute risk management, supporting the Nature's no. 1 strategy requires a shared understanding of the key risks and the overall level of risk exposure. For that purpose, Chr. Hansen has defined risk appetite and risk tolerance levels for relevant risk areas.

Enterprise risk management at Chr. Hansen is a structured, consistent and continuous approach to managing risk exposure and covers all types of risk across the organization.

Relevant risks are identified, monitored and reported to the Executive Board and the Board of Directors as per the enterprise risk governance structure. Identified risks are presented to and discussed by Management several times during the year. The purpose of this process is to ensure focus on current risks and to identify risks as early as possible, enabling Management to take a proactive approach to adapting business processes and controls to meet, manage or mitigate such risks, or to prevent any increase in the current level of exposure.

Identified risks are evaluated on the basis of their potential impact on a number of criteria, including safety, business, reputational and financial impact, and the likelihood of the risk materializing. Clear roles and responsibilities are assigned in relation to major risks, and mitigation initiatives are identified, prioritized and launched. The most significant risks identified and reported to the Board of Directors are described below, including measures taken to mitigate such risks where necessary.

To further ensure a high-quality and consistent approach in the risk management process, the key risks have been divided into five categories, each with mitigating activities of a similar nature. These categories are:

- Products
- Technology
- Customers & consumers
- Partners
- Markets

The Executive Board and the Board of Directors maintain a strong focus on the Enterprise Risk Management process in

order to ensure that risk management is an integral part of decision-making processes.

The following list of risks that could ultimately affect the Company is not exhaustive.

#### PRODUCTS

In order to continue delivering high-quality products while also growing the business, Chr. Hansen is focused on improving process standards for all aspects relating to the manufacture of its products. This includes long-term planning of the production footprint to minimize the risks of a consolidated production setup, strong focus on quality and purity to meet the highest food safety standards and ensuring a safe working environment.

#### **Production footprint**

Chr. Hansen has five main production sites: two in Denmark and one each in France, Germany and the US. Each site carefully monitors product safety and delivery performance to manage all potential risks. This consolidation of production allows capacity to be optimized and thereby to reduce production costs. To minimize the risk of production breakdowns or failures, Chr. Hansen has implemented a risk prevention program of regular audits, which ensures that preventive maintenance is performed, and replacements made.

As production processes are optimized and automated, dependence on robust IT systems and infrastructure increases. Chr. Hansen continues to reduce complexity in IT systems and conduct regular restore tests, as well as improving cyber security and contingency plans.

This concentrated production setup entails the risk of a production breakdown interrupting the Company's operations and leading to loss of income in both the short and long term due to long lead times for the replacement of key equipment. The causes might be contamination of production equipment, key equipment breakdown, fire, terrorism or natural disasters.

The risk and impact of a production breakdown are mitigated through inventory policies, maintenance, fire safety measures, behavior-based training, continuous improvements to operational processes, insurance and business continuity plans, including alternative production possibilities.

#### DEVELOPMENTS IN 2017/18

With the capacity expansion project at the Copenhagen facility complete, Chr. Hansen has doubled its fermentation capacity.

In addition, to gain flexibility of supply, in case of a breakdown, the asset utilization of certain critical production processes has been reduced.

To cope with the volume growth in Human Health, a new fermentation line at the Roskilde, Denmark site is expected to become operational at the end of the 2018 calendar year. Due to the constant increase within the Human Health domain, capacity utilization at the existing facilities had become extremely high. The additional fermentation line will reduce the risk of supply issues due to a potential breakdown of critical equipment.

To meet the expectations of growing demand for natural colors in North America, Chr. Hansen is expanding the production capacity and adding new capabilities in North America. Hence, Chr. Hansen acquired the Banker Wire manufacturing facility in Mukwonago, Wisconsin.

Additional capacity for packaging freeze dried and powdered products is being built on-site at the Copenhagen facility. The objective is three-fold. Firstly, it will almost double Chr. Hansen's capacity, supporting growth volumes in both enzymes and Human Health, secondly, for compliance reasons, and thirdly, to insource processes that were previously outsourced.

Throughout the year, focus has been on strengthening business continuity plans. It is essential that there is an alignment at supply chain level and a clear understanding between sites of how to transfer production should an irregularity occur. All relevant employees are to be trained in the execution of these plans.

These initiatives have reduced the risk of capacity breakdowns significantly.

The rate of recycled solid waste increased to 42% in 2017/18. A number of sites completed minor waste projects that combined for most of the overall improvement. The energy efficiency rate improved to 9%. Major projects focusing on the energy-efficient use of process and utility equipment were initiated in France, Italy, Germany and the US. Water efficiency increased to 6% in 2017/18 and was mainly due to water preservation projects in Brazil and Peru.

#### Product safety

The majority of Chr. Hansen's products are sold to the food & beverage, Human Health, Animal Health and Plant Health industries. Most products are components in customers' end products that are consumed as food, beverages or dietary supplements.

To ensure the highest level of product safety, Chr. Hansen maintains an extensive quality assurance and food safety program covering the entire value chain, from the sourcing of raw materials until the finished products are delivered to customers. The risk assessment performed as part of the food safety program includes an evaluation of the use of our products in customer end products. Chr. Hansen's food safety program is certified to internationally recognized food safety standards. All production sites are FSSC 22000 certified, and central product development functions are certified to ISO 22000.

#### DEVELOPMENTS IN 2017/18

There were two product retrievals in 2017/18, compared with two in 2016/17 and three in 2015/16. A retrieval constitutes a situation, where a Chr. Hansen product has been withdrawn but there has not been a regulatory requirement to remove the product. The latter situation is generally referred to as a recall.

All inspections by authorities during the year were concluded satisfactorily. The risk related to product safety is considered to be unchanged.

#### Health, safety and security

Chr. Hansen is committed to continuously improving both the physical and psychosocial working environment for its employees. The Company has implemented several initiatives to underline the importance of a safe working environment. Monitoring and follow-up of incidents take place at both departmental and Executive Board level. All major sites have implemented measures to increase awareness of safe behavior and site security.

Cyber security is a strategic focus area for Chr. Hansen given the increasing risk of cybercrime incidents.

#### DEVELOPMENTS IN 2017/18

The creation of a global Health and Safety Organization has sharpened focus on establishing a zero-accident mindset across the organization, so all employees can work safely, with clear instructions on how to minimize accidents at work. This has resulted in Chr. Hansen's best-ever health and safety performance. The Lost-Time Incident Frequency (LTIF) decreased from 4.0 in 2015/16 to 2.5 in 2016/17 and to 2.46 in 2017/18, keeping Chr. Hansen on track to achieve the target of  $\leq 1.8$  in 2022. The main reasons for the positive results are a combination of a high level of Management attention, global safety assessments, global minimum requirements and the launch of new behavior-based safety tools.

As noted above, cyber security is a strategic focus area and several activities have been launched. Chr. Hansen arranged for an external assessment of the cyber security activities and organization.

Additional resources have been dedicated to IT security, ensuring that Chr. Hansen is proactive in preventing potential cybercrime incidents. Initiatives include an upgraded IT platform and an enhanced disaster recovery organization. The General Data Protection Regulation (GDPR) has also had a high impact on Global IT procedures and systems. IT Security ensured alignment of IT Security guidelines and adequate compliance with GDPR.

The overall risk of health, safety and security incidents is considered to be unchanged, as the risk related to health and safety has decreased, while the risk related to cybercrime has increased.

#### TECHNOLOGY

The increased technical complexity of new solutions requires a growing number of highly skilled employees, not only in research & development but also in sales & marketing, to ensure a continued flow of innovation to both existing and new markets. To continue to deliver relevant innovation to customers and navigate the complex patent landscape, it is paramount that Chr. Hansen continues to attract the best resources.

#### Human capital

Attracting and retaining the best employees and new talent remains crucial if Chr. Hansen is to continue to excel. Human knowledge is critical to Chr. Hansen's business, and there is a strong focus on continuously building and expanding the knowledge base by actively developing employees' key skills.

The Company employs a large number of scientists and other experts in their fields. Developing their skills and knowledge is an important part of building competencies globally. Equally essential, however, is integrating these highly qualified employees into the day-to-day business and helping them become better at converting their expertise into business value. Chr. Hansen applies a number of tools to retain key personnel, including appropriate incentive systems, education and succession planning. A program focusing specifically on Core Scientists has been implemented.

#### DEVELOPMENTS IN 2017/18

Chr. Hansen continues to generate significant growth which places an increased demand on our Human Capital Resource Management. Retention of staff, onboarding of new people and ensuring a culture match between new people and our organizational values are three essential challenges which are being addressed explicitly.

Employee turnover was 12%, which was similar to the 2016/17 rate. In 2017/18, the average number of full-time employees increased by 211. The risk related to attracting and retaining the best employees and new talents is considered to be unchanged.

High employee engagement is key to Chr. Hansen's future business success. The results of the 2018 Engagement Matters survey showed strong progress. For the second straight year, Chr. Hansen outperformed Gallup's benchmark in terms of increasing the score. Progress was seen across all the questions, though some more than others

The risk has slightly increased, being reflected in the importance of an optimal onboarding of new employees

#### Intellectual property rights

A strong and protected technology platform is important for Chr. Hansen. The need to protect intellectual property is increasing. The Company has a proactive patent strategy and protects new knowledge created to support and protect its business. Chr. Hansen has more than 2,000 patents granted or pending.

#### DEVELOPMENTS IN 2017/18

Chr. Hansen filed 26 new patent applications in 2017/18, compared to 27 in 2016/17. New applications were filed in all business areas. The risk related to intellectual property rights is considered to be unchanged.

#### **CUSTOMERS & CONSUMERS**

Chr. Hansen is highly dependent on delivering relevant and value-creating solutions to customers and end consumers. Relying on close relationships with customers and a strong understanding of consumers and regional taste preferences, the Company has established direct sales representation in all major markets.

The strong focus on customer intimacy often leads to longterm and strategic relationships that yield increased visibility. In general, Chr. Hansen becomes less dependent on individual customers as local and regional players take share from larger

players. However, certain individual customers grow in importance, and if the Company fails to deliver on e.g. innovation or quality, the potential downside of losing strategic customers increases. Chr. Hansen monitors its customer dependency across business areas to understand potential vulnerabilities and to initiate mitigating activities.

#### DEVELOPMENTS IN 2017/18

Chr. Hansen finalized a digitalization strategy intended to ensure that the Company embraces new digital technologies in order to, among other things, add more value to our customers across different touchpoints.

Chr. Hansen has a structured process to measure customer satisfaction. The results for 2017/18 confirms a continuous strong and loyal partnership with our customers across geographies.

Chr. Hansen continues to see incremental growth opportunities across segments, which is reconfirmed by a recent update of our market plans.

The risk related to customers and consumers is considered to be unchanged.

#### PARTNERS

In some parts of its business, Chr. Hansen relies on partners to handle key areas where the Company does not possess the required key competencies. To ensure that such partners live up to Chr. Hansen's standards, diligent evaluation of fit is performed when engaging with new partners.

Existing partnerships are also monitored in order to maintain high standards. Chr. Hansen has various kinds of partnerships, including large farmers producing raw materials for natural colors, production and packaging partners, and FMC Corporation in Plant Health.

#### DEVELOPMENTS IN 2017/18

Chr. Hansen amended and extended the collaboration with FMC Corporation on Plant Health product development and commercialization.

Within the Microbiome area, Chr. Hansen partnered with Prota Therapeutics, the developer of oral immunotherapies to treat food allergies. This partnership will assess the world's best documented probiotic strain, LGG<sup>®</sup>, in a Phase III clinical trial to develop a potential treatment for peanut allergy.

#### MARKETS

Competing globally and generating an increasing share of our revenue in emerging markets can cause uncertainty and obstacles in certain markets, which can impact both revenue and profitability. Examples are changes in the competitive landscape, limited or no access to markets due to sanctions, fluctuations in currencies and raw material prices, and regulatory changes. Close surveillance of the markets in which the Company operates is important in order to take any necessary mitigating actions on a timely basis.

#### **Business environment**

With offices in more than 30 countries and sales to more than 140 countries, Chr. Hansen may from time to time be affected by geopolitical uncertainties and unrest.

As a supplier of ingredients mainly to the food industry, Chr. Hansen is rarely directly affected by trade restrictions. Customers of Chr. Hansen are more likely to be affected by trade restrictions, which could potentially have an adverse effect on the Company's sales. Chr. Hansen acts in full compliance with any imposed product-related sanctions.

Political and economic unrest in countries and regions where Chr. Hansen operates or plans to operate is monitored continually and taken into account when strategic decisions are made.

#### DEVELOPMENTS IN 2017/18

The current economic environment has become more volatile than was the case the last year. The level of volatility depends very much on any political intervention. The political instability in some regions and the risk of trade disputes have increased the uncertainty related to the future business environment.

#### Documentation

Chr. Hansen has some of the most extensively documented probiotic strains on the market and works continuously to improve the documentation of health claims related to these probiotic strains and to respond to changing documentation requirements from authorities.

The Company's approach to the underlying studies is in line with EFSA's guidelines on the subject, meaning that the effect is evaluated on the basis of quantifiable responses in biomarkers in scientifically valid tests.

#### DEVELOPMENTS IN 2017/18

Chr. Hansen continues to work to produce better clinical data to support the health claims of existing and new strains in specific settings.

The acquisition of LGG<sup>®</sup> has further strengthened Chr. Hansen's leading position within documented probiotic strains. The risk related to documentation is therefore considered to have decreased.

#### Direct and indirect taxes and transfer pricing

Chr. Hansen is a global business operating in multiple jurisdictions with different tax rules and regulations. It is the Company's intention always to fulfill the tax requirements in all the countries where business is conducted. Chr. Hansen works consistently to create tax awareness in the organization and has defined clear roles and responsibilities between line management, local finance and the Group Tax function. However, tax and transfer pricing disputes do arise from time to time as cross-border transactions increasingly receive attention from local tax authorities.

Chr. Hansen's Group Tax function ensures compliance with the Group's tax position. Enquiries from local tax authorities are addressed in cooperation with tax advisors, and the Company pursues a constructive and open dialogue with local tax authorities to prevent disputes. The Group Tax function constantly strives to support business activities worldwide in the best possible way.

As a global business, Chr. Hansen is affected by tax legislation in many countries. Changes to tax legislation in one country may have a positive or negative impact on the Group's tax expenses.

#### DEVELOPMENTS IN 2017/18.

Chr. Hansen has continued the work to ensure that its transfer pricing setup and transfer pricing documentation comply with all OECD transfer pricing guidelines and meet all local requirements. Chr. Hansen's transfer pricing setup has been confirmed in various tax audits and advance pricing agreement negotiations in recent years, including in one tax audit in 2017/18. Hence, the transfer pricing risk was reduced.

Chr. Hansen also continued the work on managing the corporate income- and indirect tax risks, but both increased in various countries where Chr. Hansen operates. While the short-term impact is minimal for Chr. Hansen, the long-term impact is more uncertain.

The aggregate risk related to taxes and transfer pricing is considered unchanged.

#### Legal risk

From time to time, Chr. Hansen is party to legal disputes arising in the ordinary course of its business. The Legal department is focused on analyzing possible risks in a timely manner and mitigating them in an appropriate way using both internal and, if needed, external capabilities. Despite the focus from Chr. Hansen on these matters, the outcome of legal disputes cannot be predicted with certainty.

#### DEVELOPMENTS IN 2017/18

During 2017/18, Chr. Hansen was summoned in nine diacetyl-related litigations relating to the period when products containing diacetyl were produced in the Company's former flavor business. Two of these nine new litigations are settled.

In addition, Chr. Hansen has initiated one case as claimant in relation to the diacetyl matter. Chr. Hansen has insurance cover for potential losses on these claims. Please refer to note 3.8 to the Consolidated Financial Statements for further information on legal disputes.

#### **Financial risk**

Being a global growth company, Chr. Hansen is exposed to a number of financial risks, such as currency risk, liquidity risk, interest rate risk, credit risk and risks connected to funding.

Chr. Hansen has policies and procedures in place which address each type of financial risk and the company is working consistently to manage and mitigate any kind of financial risk.

Currency risk is an important financial risk for Chr. Hansen, impacting both the income statement and the balance sheet. Sales are mainly denominated in EUR, which is not considered to constitute a currency risk due to Denmark's peg to the euro. Sales in USD and AUD involve a particular foreign exchange exposure to these two currencies but there is risk towards several currencies from balances and sale activities. Currency risk is to some extent naturally hedged by the loan portfolio while also partly hedged by way of FX derivatives.

#### DEVELOPMENTS IN 2017/18

In 2017/18, Chr. Hansen extended its EUR 700 million Revolving Credit Facility by one year to now expire in August 2023. This change was made to benefit from the low funding costs and to stabilize and minimize new funding risk over the coming years. The long-term capital structure remains leveraged at just below 2x NIDB/EBITDA for an optimal relationship between liquidity and funding costs.

### RISK MANAGEMENT

Interest rate risk applies to Chr. Hansen's debt portfolio, as part of the loans carry a fixed rate of interest, while other loans carry a floating rate and are hedged by way of interest rate swaps. In 2017/18, Chr. Hansen converted a DKK 371 million floating rate loan into a fixed rate loan and set up a number of interest rate swaps to secure low funding costs and hedge against higher interest rates.

Liquidity risk is considered low as Chr. Hansen generates healthy cash flows and has relatively easy access to capital markets.

To manage credit risk on financial counterparts, Chr. Hansen as a general rule cooperates only with financial counterparts with a satisfactory credit rating from Moody's, S&P or Fitch and applies a credit maximum on all financial counterparts.

See note 4.2 to the Consolidated Financial Statement for further information on these risks.

### ANNUAL REPORT 2017/18 GOVERNANCE

#### A NATURAL ALTERNATIVE TO PESTICIDES



### GOVERNANCE CORPORATE GOVERNANCE

The Board of Directors of Chr. Hansen Holding A/S remains committed to following the Danish Recommendations on Corporate Governance as adopted on June 1, 2013 by Nasdaq Copenhagen in its Rules for Issuers of Shares<sup>1</sup>- and complied with all the recommendations, but the following one in 2017/18:

• Section 3.1.4 – Retirement age for board members: the articles of association do not stipulate a retirement age for members of the board of directors.

For more information, please refer to the Annual Corporate Governance Statement 2017/18 at https://www.chr-hansen. com/en/investors/governance/corporate-governance.

Chr. Hansen is committed to being accountable to all relevant stakeholders. The Company has developed a set of policies and positions aligned with international conventions, treaties and standards. As part of this, Chr. Hansen continues to support the United Nations Global Compact's ten principles in the areas of human rights, labor, the environment and anticorruption.

#### KEY DEVELOPMENTS IN 2017/18 Diversity

A diverse and inclusive culture is instrumental for Chr. Hansen to be able to realize the full potential of the strategy.

The positive trend towards more non-Danes in key positions continued in 2017/18, where the ratio increased by 3%-points to 46%. The number of women at manager level and in key positions increased in absolute terms. As the total workforce also increased, the ratios remained stable at 39% and 22%, respectively. The number of diverse corporate management teams increased from 66% to 78%.

The gender division in the Chr. Hansen Holding A/S Board of Directors remained stable with two out of seven members elected by the shareholders being women. Similar to last year, the Board of Directors achieved equal gender representation under Danish law<sup>3</sup>. The Board of Directors maintains the target

- 1 The Danish Recommendations on Corporate Governance of 23 November 2017 as adopted by Nasdaq Copenhagen in its Rules for Issuers of Shares with effect from January 3, 2018 are applicable for the Company with effect from the 2018/19 Annual Report comprising the accounting period from September 1, 2018 to August 31, 2019.
- 2 Diverse teams are corporate management teams reporting to vice president level and above that include at least one woman and one non-local. The percentage of diverse teams is calculated at the end of the financial year.

of having at least three women elected by the shareholders by 2022, as well as a strong diversity of skills, experience and nationality.

#### **Business ethics**

Chr. Hansen is committed to conducting business with the highest level of integrity to ensure fair, safe and ethical business practices. This year, Chr. Hansen rolled out a new Code of Conduct e-learning module to all employees, covering anticorruption and whistleblower, among other themes. This was an important step towards ensuring compliance across the organization. In 2017/18, 99% of the invited employees completed the training<sup>4</sup>. In 2017/18, Chr. Hansen also made a significant effort to ensure that all employees were reminded about the Code of Conduct they are expected to observe.

Chr. Hansen encourages employees and external stakeholders, such as suppliers and customers, to raise concerns regarding business integrity. In 2017/18, one case was reported through the whistleblower hotline. The case has been closed as unsubstantiated. Chr. Hansen will continue to communicate about the whistleblower system to ensure that all employees and relevant stakeholders are aware of and familiar with it.

An important focus area during 2017/18 was to ensure that Chr. Hansen established a strong basis for compliance with the new EU General Data Protection Regulation (GDPR). Comprehensive work has been conducted by a cross-geographical and cross-organizational project team. These efforts will continue, as we consider safe and respectful handing of personal data as an integrated part of our trusted relationship with employees, customers and other business partners.

- 3 The Danish Business Authority's "Guidelines on target figures, policies and reporting on the gender composition of management". For information about diversity in other Denmark-based Chr. Hansen companies, please refer to the Chr. Hansen Communication on Progress Report.
- 4 Completion percentage as of August 31, 2018. The online training runs over the calendar year. Chr. Hansen expects 100% by October 30, 2018.

#### Annual Board of Directors review

The Chairman of the Board of Directors is responsible for conducting an annual review of the Board's performance, addressing the effectiveness of the Board, the processes supporting its work, individual members' contributions and the Chairman's performance.

In 2017/18, the evaluation was conducted by the individual directors and executives anonymously completing a comprehensive online questionnaire, which was then summarized by an external consultant.

Similar evaluations of their effectiveness have been undertaken by the Audit Committee, the Nomination Committee, the Remuneration Committee and the Scientific Committee.

The results of the assessment process were presented to the Board of Directors in September 2018 by the Chairman. The report describes a number of areas in which the Board is both effective and functions very well and gives an overall impression of a high-performing Board of Directors. Almost all areas for improvement that were identified in last year's assessment have been complied with. This year, too, the assessment identified some minor areas in which improvements will be considered.

The Chairman has held individual meetings with the other directors to review their performance.

#### REMUNERATION

The remuneration of the Board of Directors and Executive Board at Chr. Hansen shall contribute to the creation of value in the Company and support the Company's short- and longterm objectives. The design of the compensation structure shall further seek to align the interests of the Executive Board and those of the shareholders and, finally, ensure that the Company is able to attract and retain highly qualified members for both its Executive Board and Board of Directors.

The following section describes the most important elements of Chr. Hansen's Remuneration Policy for the Board of Directors and Executive Board.

#### **Board of Directors**

The remuneration of members of the Board of Directors comprises a fixed annual base fee and fixed annual supplementary fees for the Chairman, Vice Chairman, and members and chairmen of permanent committees. Further, members of the Board of Directors may receive a fixed travel allowance in connection with overseas travel. Members of the Board of Directors do not receive any incentive-based remuneration.

#### **Executive Board**

Members of the Executive Board receive an agreed base salary, which is subject to annual reassessment, with addition of pension contribution and are granted certain benefits such as company car and insurance.

The Executive Board and other key employees are further offered incentive-based remuneration in accordance with the Board of Directors' overall guidelines for incentive-based remuneration as approved by the Company's Annual General Meeting.

In the event of change of control, members of the Executive Board do not receive any additional compensation.

#### Assessment of the remuneration

The remuneration of the Board of Directors and Executive Board is assessed annually. The Board of Directors decides on the remuneration of the Executive Board and other key employees based on a recommendation from the Board's Remuneration Committee.

#### FURTHER INFORMATION

For more information on remuneration, please refer to Chr. Hansen's Remuneration Policy as approved by the Annual General Meeting on November 28, 2017 and Overall Guidelines for Incentive-Based Remuneration as approved by the Annual General Meeting on November 26, 2015. The remuneration policy and guidelines, Chr. Hansen's Articles of Association, and other policies and positions are available at www. chr-hansen.com/en/investors/governance/remuneration. For specific information on the remuneration of the Executive Board and Board of Directors in 2017/18, please refer to notes 2.3 and 5.1 to the Consolidated Financial Statements. Section 107b of the Danish Financial Statements Act requires Chr. Hansen Holding A/S to prepare a statement on corporate governance for the 2017/18 financial year. This statement forms part of Management's Review and can be viewed at www.chrhansen.com/en/investors/governance/corporate-governance. For a full report on corporate social responsibility as required by sections 99a and 99b of the Danish Financial Statements Act, please refer to Chr. Hansen's Communication on Progress to the UN Global Compact, available at www.chr-hansen.com/ en/sustainability/reporting-and-disclosure.

### GOVERNANCE BOARD OF DIRECTORS AND EXECUTIVE BOARD

#### **BOARD OF DIRECTORS**

#### **OLE ANDERSEN - CHAIRMAN**

Professional board member. Born July 1956. Danish national. Independent. Member and chairman of the Board since February 2010; re-elected 2017; term expires 2018. Chairman of the Remuneration and Nomination Committees

and member of the Audit Committee.

#### BOARD POSITIONS AND OTHER OFFICES

Chairman: Danske Bank A/S, Bang & Olufsen A/S. Member (unpaid): DenmarkBridge, Human Practice Foundation (charity), Nomination Committee of Nasdaq Nordic Ltd., and the Danish Committee on Corporate Governance. Adjunct professor: Copenhagen Business School.

#### BOARD COMPETENCIES

Professional experience in managing and developing large international companies. Extensive board experience, including from private equity owned and listed companies. Financial and accounting expertise.

#### DOMINIQUE REINICHE - VICE CHAIRMAN

Professional board member. Born July 1955. French national. Independent. Member of the Board since November 2013; re-elected 2017; term expires 2018.

Member of the Nomination, Remuneration and Scientific Committees.

#### BOARD POSITIONS AND OTHER OFFICES

Board member: PayPal Luxembourg, chairman of the Remuneration Committee and member of the Audit Committee. Mondi plc, chairman of the Sustainability Committee and member of the Nomination and Remuneration Committees. Severn Trent plc, member of the Sustainability and Nomination Committees.

#### BOARD COMPETENCIES

Professional experience from positions in the food, beverage and hygiene/beauty care industries at, among others, Procter & Gamble and Jacobs-Suchard (now Mondelēz International). 22 years in senior leadership positions at French and European levels, including the CEO position within Coca-Cola Enterprises and The Coca-Cola Company.

#### JESPER BRANDGAARD - MEMBER

Executive Vice President of Biopharm and Legal Affairs at Novo Nordisk A/S. Born October 1963. Danish national. Independent. Member of the Board since November 2017; term expires 2018.

Member of the Audit Committee.

#### BOARD POSITIONS AND OTHER OFFICES

Chairman: SimCorp A/S. Member: Novo Nordisk Haemophilia Foundation Council.

#### BOARD COMPETENCIES

Experience from group management in a multinational pharmaceutical company, including responsibility for strategy development and implementation, legal affairs and patents, information technology and investor relations. Board and executive experience with financial reporting and capital markets.

#### LUIS CANTARELL - MEMBER

Professional board member. Born August 1952. Spanish and Swiss national.

Independent. Member of the Board since November 2016; re-elected 2017; term expires 2018. Chairman of the Scientific Committee.

#### BOARD POSITIONS AND OTHER OFFICES

Chairman: Froneri Ltd. Member: Grupo URIACH SL and Kintai Therapeutics, Inc.

#### BOARD COMPETENCIES

Professional global experience within the food and beverage industry. Extensive board experience and over 10 years of executive leadership experience with the Nestlé Group.

#### LISBETH GRUBOV - EMPLOYEE REPRESENTATIVE

Project Manager in Production IT, Chr. Hansen A/S. Born June 1955. Danish national. Member of the Board since November 2017; term expires 2021.

#### CHARLOTTE HEMMINGSEN - EMPLOYEE REPRESENTATIVE

Senior Regulatory Manager within Human Health, Chr. Hansen A/S. Born September 1964. Danish national. Member of the Board since November 2017; term expires 2021.

#### HEIDI KLEINBACH-SAUTER - MEMBER

Professional board member. Born June 1956. German and US national. Independent. Member of the Board since November 2017; term expires 2018.

Member of the Scientific Committee.

#### PER POULSEN - EMPLOYEE REPRESENTATIVE

Senior Technology Specialist, Chr. Hansen A/S. Born April 1966. Danish national. Member of the Board since November 2013; re-elected in 2017; term expires 2021.

#### KIM IB SØRENSEN - EMPLOYEE REPRESENTATIVE

Senior Principal Scientist with responsibilities within bacterial strain development and acquisition, Chr. Hansen A/S. Born July 1963. Danish national.

Member of the Board since November 2017; term expires 2021.

#### **KRISTIAN VILLUMSEN - MEMBER**

Executive Vice President of Chronic Care at Coloplast A/S. Born November 1970. Danish national. Independent. Member of the Board since November 2014; re-elected 2017; term expires 2018. Member of the Audit and Nomination Committees.

#### BOARD POSITIONS AND OTHER OFFICES

Board member in six subsidiaries wholly owned by Coloplast A/S.

#### BOARD COMPETENCIES

Extensive knowledge of the medico and life science industry as well as solid international and managerial experience in both European and emerging markets.

#### MARK WILSON - MEMBER

Professional board member. Born July 1952. British national. Independent. Member of the Board since October 2010; re-elected 2017; term expires 2018.

Chairman of the Audit Committee and member of the Remuneration Committee.

#### BOARD COMPETENCIES

International CEO/MD with over 40 years in fast moving consumer goods companies and service/B2B industries in Asian, South American, UK, Irish and international markets. Financial and accounting experience.

#### EXECUTIVE BOARD - CHR. HANSEN HOLDING A/S

#### **MAURICIO GRABER**

#### - President & Chief Executive Officer

Born March 1963. Mexican national. Joined Chr. Hansen and the Executive Board in June 2018.

#### EDUCATION

Master of Business Administration from Kellogg Graduate School of Management, Northwestern University, US. Bachelor of Science in Electronic Engineering, Universidad Autonoma Metropoli, Mexico.

#### SØREN WESTH LONNING - Chief Financial Officer

Born June 1977. Danish national. Joined Chr. Hansen in October 2007 and the Executive Board in August 2015.

#### BOARD POSITIONS AND OTHER OFFICES

CEO and sole shareholder of MNGT4 SWL ApS.

#### EDUCATION

M.Sc. in Finance and Accounting (Cand. Merc. FIR) from Copenhagen Business School.

#### CHRISTOFFER LORENZEN – Executive Vice President, Food Cultures & Enzymes

Born December 1975. Danish national. Joined Chr. Hansen in March 2008 and the Executive Board in January 2018.

#### BOARD POSITIONS AND OTHER OFFICES

Vice chairman of the Board of Directors of EFFCA (European Food & Feed Cultures Association). Board member of Hamlet Protein A/S and two parent compa-

nies, as well as J.H. Schultz-Fonden.

#### EDUCATION

M.Sc. in Business (Marketing), from Copenhagen Business School.

### THOMAS SCHÄFER – Executive Vice President & Chief Science Officer

Born January 1963. German national. Joined Chr. Hansen and the Executive Board in November 2017.

#### BOARD POSITION AND OTHER OFFICES

Member of the Board of the BioInnovation Institute and the Advisory Board for DTU Bioengineering.

#### EDUCATION

PhD in Microbiology from Freie Universität Berlin, Germany.

#### CORPORATE LEADERSHIP TEAM

In addition to the Executive Board, the Company has established a Corporate Leadership Team that assists in the dayto-day management of the Company. In addition to the four members of the Executive Board, the Corporate Leadership Team comprises a further eight members.

### MANAGEMENT BOARD OF DIRECTORS



**Ole Andersen** Chairman



**Dominique Reiniche** Vice Chairman



Jesper Brandgaard Board member



Luis Cantarell Board member



Lisbeth Grubov Board member, employee-elected



**Charlotte Hemmingsen** Board member, employee-elected



**Per Poulsen** Board member, employee-elected



Kim Ib Soerensen Board member, employee-elected



Heidi Kleinbach-Sauter Board member



Kristian Villumsen Board member



**Mark Wilson** Board member

### MANAGEMENT EXECUTIVE BOARD & CORPORATE LEADERSHIP TEAM



**Mauricio Graber** President & CEO, Executive Board Member



**Søren Westh Lonning** Executive Vice President & CFO, Executive Board Member



**Christoffer Lorenzen** Executive Vice President, Food Cultures & Enzymes Executive Board Member



**Thomas Schäfer** Chief Scientific Officer, Research & Development Executive Board Member



**Christian Barker** Executive Vice President, Health & Nutrition



**Klaus Bjerrum** Executive Vice President, Natural Colors



Winnie Bügel Corporate Vice President, Compliance, Corporate Communications & Sustainability



Anne Reker Cordt Corporate Vice President, Strategic & Business Development



**Sten Estrup** Executive Vice President, APAC & LATAM regions



**Alice Larsen** Corporate Vice President, Human Resources



**Jacob Vishof Paulsen** Executive Vice President, EMEA & North American regions



**Torsten Steenholt** Executive Vice President, Global Opreations

### GOVERNANCE SHAREHOLDER INFORMATION

Chr. Hansen Holding A/S is listed on Nasdaq Copenhagen and aims to provide long-term returns to shareholders through share price increases and dividend payouts.

The sole activity of Chr. Hansen Holding A/S is the general management and central administration of shareholdings in companies in the Chr. Hansen Group.

#### **TOTAL SHAREHOLDER RETURN 2017/18**

The Chr. Hansen share closed the financial year on August 31, 2018 at DKK 652. This represents an increase of DKK 115 per share or 21% compared to the previous year's closing price.

During the year, an ordinary dividend of EUR 0.85 (DKK 6.33) per share, or a total of EUR 112 million, was paid for the 2016/17 financial year. In July 2018, the Board of Directors decided to pay an extraordinary dividend of EUR 0.80 (DKK 5.94) per share, totaling EUR 105 million.

The total shareholder return in 2017/18 was equal to 24%.

Chr. Hansen is included in a number of share indexes, including the Nasdaq OMX C25 index, and benchmarks itself against a predefined group of companies. The Nasdaq OMX C25 index returned 0%, while the predefined peer group returned 28% including dividends.

#### CAPITAL STRUCTURE

The Board of Directors regularly assesses whether the capital structure of Chr. Hansen is in the shareholders' best interests. The Board of Directors is committed to maintaining financial leverage consistent with a solid investment-grade credit profile, while returning excess cash to shareholders.

The Company's policy for ordinary dividends is a payout ratio of 40-60% of net profit. In addition, the Annual General Meeting has authorized the Board of Directors to distribute extraordinary dividends.

The dividends proposed depend on the Board's assessment of factors such as business development, growth strategy and financing needs, and there can be no assurance that an ordinary or extraordinary dividend will be proposed or declared in any given year.

The Board of Directors proposes that the Annual General Meeting approves an ordinary dividend for 2017/18 of EUR 0.87 (DKK 6.47) per share, or a total of EUR 114 million. The proposed ordinary dividend is equivalent to 50% of the profit for the year. The Board of Directors believes that the proposed dividend best serves the interests of the shareholders. The capital and share structure will be assessed regularly to determine whether it remains in the shareholders' best interests.

#### AUTHORIZATION OF THE BOARD OF DIRECTORS

Until and including November 28, 2022, the Board of Directors has been authorized by the Annual General Meeting to:

- Increase the share capital in one or more stages, with preemptive rights for existing shareholders, by up to a total nominal value of DKK 131,852,496. The capital increase shall be effected by payment in cash.
- Increase the share capital in one or more stages, without pre-emptive rights for existing shareholders, by up to a total nominal value of DKK 131,852,496, provided that the increase takes place at market price. The capital increase may be effected by payment in cash or by contribution of



assets other than cash. The authorizations to increase the share capital are subject to a joint cap of nominally DKK 131,852,496.

 To acquire up to 13,185,249 treasury shares, provided that the Company's holding of treasury shares at no time exceeds 10% of the Company's share capital. The consideration payable for the shares may not deviate by more than 10% from the share price listed on Nasdaq Copenhagen at the time of acquisition.

#### SHAREHOLDERS

At the end of August 2018, Chr. Hansen had around 25,000 institutional and private shareholders, four of which each held 5% or more of the shares:

- Novo Holdings A/S (Denmark)
- Capital Group Companies Inc. (US)
- APG Asset Management N.V. (Netherlands)
- WCM Investment Management (US)

An analysis of the shareholder structure carried out in June 2018 showed that the United States and United Kingdom represent the largest regional group of institutional investors at 40% of share capital followed by the Netherlands and France. Around 5% of shares were held by retail investors.

To meet certain obligations to deliver shares under management incentive programs Chr. Hansen held less than 1% in treasury stock.

#### AMERICAN DEPOSITARY RECEIPT PROGRAM

Chr. Hansen has a sponsored Level 1 American Depositary Receipt (ADR) program with Bank of New York Mellon acting as depositary bank. An ADR is a USD-denominated negotiable certificate that represents ownership of shares in a non-US company, facilitating the purchase, holding and sale of non-US securities by US investors. At the end of August 2018, 2.5% of the share capital was held through the ADR program.

#### ANALYST COVERAGE

The Company is currently covered by 18 analysts, including major international investment banks. A list of analysts covering Chr. Hansen can be found at <u>www.chr-hansen.com/investors/share-info/analysts</u>.

#### INVESTOR RELATIONS ACTIVITIES

Chr. Hansen seeks to ensure that relevant, accurate and timely information is made available to the capital markets to serve as a basis for regular trading and fair pricing of the Company's shares. In providing this information, Chr. Hansen aims to ensure that it is perceived as a visible, accessible, reliable and professional company by the investor community, and that it is regarded as one of the best among its peers in this area. This is to be achieved while complying with the rules and legislation for companies listed on Nasdaq Copenhagen and Chr. Hansen's communication policy.

In 2017/18, Chr. Hansen maintained a close dialogue with investors and analysts and participated in a number of conferences hosted by various brokers.

#### INVESTOR RELATIONS WEBSITE

The Company's investor relations site contains both historical and current information about the Company, including company announcements, investor presentations, teleconferences including transcripts, a financial calendar and annual reports. See <u>www.chr-hansen.com/investors</u>.

#### CONTACT

The Investor Relations department handles daily contact with analysts and investors.

Head of IRIR OfficerMartin RiiseAnnika SternTel.: +45 5339 2250Tel.: +45 2399 2382dkmari@chr-hansen.comdkaste@chr-hansen.com

#### ANNUAL GENERAL MEETING

The Annual General Meeting will be held on Thursday, November 29, 2018 in Chr. Hansen's headquarters at Bøge Allé 10-12, 2970 Hørsholm, Denmark.

#### SHARE DATA

Share capital	DKK 1,318,524,960
Number of shares	131,852,496 of DKK 10
Outstanding shares	131,655,778 of DKK 10
Classes of shares	1
Voting and ownership restrictions	None
Stock exchange	Nasdaq Copenhagen A/S
ISIN code	DK0060227585
Ticker symbol	CHR
Share price at year-end	DKK 652
Proposed dividend per share	DKK 6.47

OTC ADR Level 1 program (BNY Mellon)

DR Symbol	СНҮНҮ
CUSIP	12545M207
DR ISIN	US12545M2070
Ratio	DR:ORD 2:1

#### FINANCIAL CALENDAR 2018/2019

November 29, 2018	Annual General Meeting 2018
January 17, 2019	Interim Report Q1 2018/19
April 3, 2019	Interim Report Q2 2018/19
July 3, 2019	Interim Report Q3 2018/19
October 10, 2019	Annual Report 2018/19
November 27, 2019	Annual General Meeting 2019

#### MAIN COMPANY ANNOUNCEMENTS 2017/18

October 6, 2017	Major shareholder announcement from The Capital Group Companies, Inc.
November 28, 2017	Cees de Jong will step down as CEO
January 8, 2018	Mauricio Graber appointed new
	CEO
January 29, 2018	Christoffer Lorenzen appointed
	member of the Executive Board
February 20, 2018	Major shareholder announcement
	from WCM Investment
	Management
April 17, 2018	Nature's no. 1 Sustainably – strategy
	update
May 8, 2018	Klaus Bjerrum appointed new EVP
	of the Natural Colors Division

### GOVERNANCE MANAGEMENT'S STATEMENT ON THE ANNUAL REPORT

The Executive Board and the Board of Directors have today considered and adopted the Annual Report of Chr. Hansen Holding A/S for the financial year September 1, 2017 – August 31, 2018.

The Annual Report has been prepared in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

In our opinion, the Consolidated Financial Statements and the Parent Company Financial Statements give a true and fair view of the financial position at August 31, 2018 of the Group and the Parent Company and of the results of the Group's and Parent Company's operations and cash flows for 2017/18.

In our opinion, Management's Review includes a true and fair account of the development in the operations and financial circumstances of the Group and the Parent Company, of the results for the year, and of the financial position of the Group and the Parent Company, as well as a description of the most significant risks and elements of uncertainty facing the Group and the Parent Company.

We recommend that the Annual Report be adopted at the Annual General Meeting.

#### Hørsholm, October 15, 2018

#### **Executive Board**

Mauricio Graber President and CEO	Søren Westh Lonning CFO	Christoffer Lorenzen EVP	Thomas Schäfer CSO
Board of Directors			
Ole Andersen Chairman	Dominique Reiniche Vice Chairman	Jesper Brandgaard	Luis Cantarell
Lisbeth Grubov	Charlotte Hemmingsen	Heidi Kleinbach-Sauter	Per Poulsen
Kim Ib Sørensen	Kristian Villumsen	Mark Wilson	

### GOVERNANCE INDEPENDENT AUDITOR'S REPORT

TO THE SHAREHOLDERS OF CHR. HANSEN HOLDING A/S

#### **OUR OPINION**

In our opinion, the Consolidated Financial Statements and the Parent Company Financial Statements give a true and fair view of the Group's and the Parent Company's financial position at August 31, 2018 and of the results of the Group's and the Parent Company's operations and cash flows for the financial year September 1, 2017 to August 31, 2018 in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

Our opinion is consistent with our Auditor's Long-form Report to the Audit Committee and the Board of Directors.

#### WHAT WE HAVE AUDITED

The Consolidated Financial Statements and Parent Company Financial Statements of Chr. Hansen Holding A/S for the financial year September 1, 2017 to August 31, 2018 comprise income statement and statement of comprehensive income, balance sheet, statement of changes in equity, cash flow statement and notes, including summary of significant accounting policies for the Group as well as for the Parent Company. Collectively referred to as the "Financial Statements".

#### **BASIS FOR OPINION**

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### INDEPENDENCE

We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark. We have also fulfilled our other ethical responsibilities in accordance with the IESBA Code.

To the best of our knowledge and belief, prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 were not provided.

#### APPOINTMENT

We were appointed as auditors of Chr. Hansen Holding A/S for the first time after the initial public offering on November 30, 2010. We have been reappointed annually by shareholder resolution for a total period of uninterrupted engagement of 8 years including the financial year for the period September 1, 2017 to August 31, 2018.

#### **KEY AUDIT MATTERS**

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Statements for the period September 1, 2017 to August 31, 2018. These matters were addressed in the context of our audit of the Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### KEY AUDIT MATTER

#### Valuation of goodwill

The Group has goodwill arising from acquisitions.

The value of goodwill is supported by Management's assessment of the future value based on strategic plans, and value-in-use calculations which are based on future cash flow.

We focused on this area because the valuation assessment of goodwill is dependent on complex and subjective judgements by Management as well as estimation over the future outcome, which is uncertain by nature.

Refer to note 3.1 in the Consolidated Financial Statements.

#### Capitalisation and valuation of development projects

The Group capitalizes development costs in accordance with IFRS, which prescribe capitalization when certain criteria are met. Recognition and measurement of development projects are subject to judgement and estimates based on Management's assumptions of the future, which is uncertain by nature.

Completed development projects are reviewed at the time of completion and on an annual basis to determine whether there is any indication of impairment. If so, an impairment test is carried out for the individual development projects. For development projects in progress, however, an annual impairment test is always performed.

The impairment test is based on strategic plans, and either value-in-use calculation based on future cash flow forecasts or fair value less costs of disposal (i.e. "recoverable amount")

We focused on this area because of the valuation assessment of development projects is dependent on complex and subjective judgements by Management.

Refer to note 3.2 in the Consolidated Financial Statements.

#### HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER

We assessed the Group's impairment methodology including the identification of CGUs.

We challenged Management's estimates and key assumptions used in the valuation of goodwill, comprising revenue development, profit margins, proposed capital expenditure and growth expectations, etc.

Furthermore, we evaluated Management's sensitivity analysis and challenged key assumptions within the valuation calculations.

We considered whether all criteria are met as basis for the capitalisation of development projects in progress. We evaluated procedures and tested relevant internal controls related to correct accounting for development projects and performed substantive audit procedures to verify capitalised amounts.

We evaluated and challenged Management's assessment of indication of impairment of completed development projects. Our work was based on our understanding of the commercial prospects of the completed development projects.

For development projects in progress we evaluated the impairment test performed by Management.

We selected a sample of projects not yet launched at the balance sheet date and challenged whether a future intent to develop the project remains and whether they will generate probable future economic benefit exceeding the expected carrying value.

We challenged the appropriateness of the key assumptions applied and the probability of key future events occurring. Our work was based on our understanding of the commercial prospects of the developments projects in progress.

We considered the appropriateness of the related disclosure provided in the Consolidated Financial Statements.

#### STATEMENT ON MANAGEMENT'S REVIEW

Management is responsible for Management's Review, pages 4-48

Our opinion on the Financial Statements does not cover Management's Review, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Financial Statements, our responsibility is to read Management's Review and, in doing so, consider whether Management's Review is materially inconsistent with the Financial Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

Moreover, we considered whether Management's Review includes the disclosures required by the Danish Financial Statements Act.

Based on the work we have performed, in our view, Management's Review is in accordance with the Consolidated Financial Statements and the Parent Company Financial Statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We did not identify any material misstatement in Management's Review.

#### MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation of consolidated financial statements and parent company financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act, and for such internal control as Management 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, Management is responsible for assessing the Group's and the Parent Company'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 Management either intends to liquidate the Group or the Parent Company 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 ISAs and the additional requirements applicable in Denmark 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 ISAs and the additional requirements applicable in Denmark, we exercise professional judgement 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 the Group's and the Parent Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.

- Conclude on the appropriateness of Management's 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 and the Parent Company'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 Group or the Parent Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Financial Statements, including the disclosures, and whether the 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 those charged with governance 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 those charged with governance 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 those charged with governance, 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.

Hellerup, October 15, 2018 PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab CVR No 33 77 12 31

Kim Füchsel State Authorized Public Accountant mne9291 Allan Knudsen State Authorized Public Accountant mne29465

### ANNUAL REPORT 2017/18 FINANCIAL STATEMENTS

#### PART OF THE SOLUTION



# FINANCIAL STATEMENTS – GROUP

INCOME STATEMENT STATEMENT OF COMPREHENSIVE INCOME BALANCE SHEET STATEMENT OF CHANGES IN EQUITY CASH FLOW STATEMENT

#### **BASIS OF PREPARATION**

1.1 General accounting policies1.2 Summary of key accounting estimates

#### **RESULTS FOR THE YEAR**

2.1 Segment information
2.2 Depreciation, amortization and impairment losses
2.3 Staff expenses
2.4 Fees to auditors
2.5 Special items
2.6 Financial income
2.7 Financial expenses
2.8 Income taxes and deferred tax
2.9 Earnings per share

#### **OPERATING ASSETS AND LIABILITIES**

3.1 Goodwill
3.2 Other intangible assets
3.3 Property, plant and equipment
3.4 Inventories
3.5 Trade receivables
3.6 Employee benefit obligations
3.7 Provisions
3.8 Commitments and contingent liabilities

#### CAPITAL STRUCTURE AND FINANCING

4.1 Share capital4.2 Financial assets and liabilities4.3 Derivative financial instruments

#### OTHER DISCLOSURES

5.1 Share-based payment5.2 Non-cash adjustments5.3 Acquisition of entities5.4 Related parties5.5 Events after the balance sheet date5.6 List of Group companies at August 31, 2018

# FINANCIAL STATEMENTS - GROUP

SEPTEMBER 1 - AUGUST 31

EUR million	Note	2017/18	2016/17
Revenue	2.1	1,097.4	1,062.5
Cost of sales	2.2 - 2.3	(496.8)	(484.4)
Gross profit		600.6	578.1
Research and development expenses	2.2 - 2.3	(73.4)	(71.4)
Sales and marketing expenses	2.2 - 2.3	(139.3)	(134.2)
Administrative expenses	2.2 - 2.3 - 2.4	(70.4)	(70.9)
Other operating income		3.5	5.9
Other operating expenses		(0.8)	(0.4)
Operating profit before special items		320.2	307.1
Special items	2.5	-	(1.4)
Operating profit (EBIT)	2.5	320.2	305.7
Financial income	2.6	37.4	24.5
Financial expenses	2.7	(61.5)	(39.3)
Profit before tax		296.1	290.9
Income taxes	2.8	(67.9)	(66.9)
Profit for the year		228.2	224.0
	2.0	1 70	1 70
Earnings per share (EUR)	2.9	1.73	1.70
Earnings per share, diluted (EUR)	2.9	1.73	1.68

### FINANCIAL STATEMENTS – GROUP STATEMENT OF COMPREHENSIVE INCOME

SEPTEMBER 1 - AUGUST 31

EUR million	Note 2017/18	2016/17
Profit for the year	228.2	224.0
Items that will not be reclassified subsequently to the income statement:		
Remeasurements of defined benefit plans	0.1	0.3
Items that will be reclassified subsequently to the income statement when specific conditions are met:		
Currency translation of foreign Group companies	(13.3)	(7.1)
Deferred gains/(losses) on cash flow hedges arising during the year	0.4	(0.4)
Gains/(losses) on cash flow hedges expiring during the year	1.1	1.7
Tax related to cash flow hedges	(0.3)	0.5
Other comprehensive income for the year	(12.0)	(5.0)
Total comprehensive income for the year	216.2	219.0

### FINANCIAL STATEMENTS – GROUP BALANCE SHEET

AT AUGUST 31

EUR million	Note	2018	2017
ASSETS			
Non-current assets			
Intangible assets			
Goodwill	3.1	761.7	767.2
Other intangible assets	3.2	173.8	191.9
Intangible assets in progress	3.2	45.4	36.0
Total intangible assets		980.9	995.1
Property, plant and equipment			
Land and buildings	3.3	145.3	141.6
Plant and machinery	3.3	188.1	151.8
Other fixtures and equipment	3.3	25.0	23.0
Property, plant and equipment in progress	3.3	103.1	94.8
Total property, plant and equipment		461.5	411.2
Other non-current assets			
Deferred tax	2.8	7.4	8.2
Total other non-current assets		7.4	8.2
Total non-current assets		1,449.8	1,414.5
Total non-current assets Current assets		1,449.8	1,414.5
		1,449.8	1,414.5
Current assets		<b>1,449.8</b> 25.9	<b>1,414.5</b> 22.0
Current assets Inventories			
Current assets Inventories Raw materials and consumables		25.9	22.0
Current assets Inventories Raw materials and consumables Work in progress	3.4	25.9 53.4	22.0 45.3
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale	3.4	25.9 53.4 67.6	22.0 45.3 67.9
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories	3.4	25.9 53.4 67.6	22.0 45.3 67.9
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories Receivables		25.9 53.4 67.6 <b>146.9</b>	22.0 45.3 67.9 <b>135.2</b>
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories Receivables Trade receivables		25.9 53.4 67.6 <b>146.9</b> 160.8	22.0 45.3 67.9 <b>135.2</b> 150.0
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories Receivables Trade receivables Tax receivables		25.9 53.4 67.6 <b>146.9</b> 160.8 3.0	22.0 45.3 67.9 <b>135.2</b> 150.0 4.6
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories Receivables Trade receivables Tax receivables Other receivables		25.9 53.4 67.6 <b>146.9</b> 160.8 3.0 21.4	22.0 45.3 67.9 <b>135.2</b> 150.0 4.6 16.0
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories Receivables Trade receivables Tax receivables Other receivables Prepayments		25.9 53.4 67.6 <b>146.9</b> 160.8 3.0 21.4 10.1	22.0 45.3 67.9 <b>135.2</b> 150.0 4.6 16.0 8.8
Current assets Inventories Raw materials and consumables Work in progress Finished goods and goods for resale Total inventories Receivables Trade receivables Tax receivables Other receivables Prepayments Total receivables		25.9 53.4 67.6 <b>146.9</b> 160.8 3.0 21.4 10.1 <b>195.3</b>	22.0 45.3 67.9 <b>135.2</b> 150.0 4.6 16.0 8.8 <b>179.4</b>

### FINANCIAL STATEMENTS – GROUP BALANCE SHEET

AT AUGUST 31

EUR million	Note	2018	2017
EQUITY AND LIABILITIES			
Equity			
Share capital	4.1	176.8	177.3
Reserves		594.8	591.2
Total equity		771.6	768.5
Liabilities			
Non-current liabilities			
Employee benefit obligations	3.6	7.1	6.7
Deferred tax	2.8	81.6	72.1
Provisions	3.7	3.6	3.2
Borrowings	4.2	632.4	671.8
Tax payables		21.3	15.6
Total non-current liabilities		746.0	769.4
Current liabilities			
Provisions	3.7	0.1	0.1
Borrowings	4.2	95.4	29.6
Prepayments from customers		0.2	0.2
Trade payables		118.6	110.4
Tax payables		44.4	39.5
Other payables		84.8	84.4
Total current liabilities		343.5	264.2
Total liabilities		1,089.5	1,033.6
Total equity and liabilities		1,861.1	1,802.1
Commitments and contingent liabilities	3.8		
Derivative financial instruments	4.3		
Related parties	5.4		
Events after the balance sheet date	5.5		
List of Group companies at August 31, 2018	5.6		

### FINANCIAL STATEMENTS - GROUP STATEMENT OF CHANGES IN EQUITY

SEPTEMBER 1 - AUGUST 31

EUR million						2017/18
	Note	Share capital	Currency translation	Cash flow hedges	Retained earnings	Total
Equity at September 1, 2017		177.3	(38.2)	(1.9)	631.3	768.5
Total comprehensive income for the year, see statement of comprehensive income		(0.5)	(12.8)	1.2	228.3	216.2
Transactions with owners:						
Purchase of treasury shares		-	-	-	(4.7)	(4.7)
Exercised share options		-	-	-	1.1	1.1
Share-based payment	5.1	-	-	-	5.5	5.5
Tax related to share-based						
payment		-	-	-	1.9	1.9
Dividend		-	-	-	(216.9)	(216.9)
Equity at August 31, 2018		176.8	(51.0)	(0.7)	646.5	771.6

During the year, an ordinary dividend for the financial year 2016/17 of EUR 0.85 (DKK 6.33) per share, corresponding to EUR 112 million, and an extraordinary dividend of EUR 0.80 (DKK 5.94) per share, corresponding to EUR 105 million, were paid. A dividend of EUR 0.87 (DKK 6.47), corresponding to EUR 114 million in total, is proposed for 2017/18.

EUR million						2016/17
	Note	Share capital	Currency translation	Cash flow hedges	Retained earnings	Total
Equity at September 1, 2016		177.2	(31.0)	(3.7)	587.8	730.3
Total comprehensive income for the year, see statement of comprehensive income		0.1	(7.2)	1.8	224.3	219.0
Transactions with owners:						
Purchase of treasury shares		-	-	-	(20.1)	(20.1)
Exercised share options		-	-	-	24.6	24.6
Share-based payment	5.1	-	-	-	2.5	2.5
Tax related to share-based						
payment		-	-	-	4.4	4.4
Dividend		-	-	-	(192.2)	(192.2)
Equity at August 31, 2017		177.3	(38.2)	(1.9)	631.3	768.5

During the year, an ordinary dividend for the financial year 2015/16 of EUR 0.70 (DKK 5.23) per share, corresponding to EUR 92 million, and an extraordinary dividend of EUR 0.76 (DKK 5.64) per share, corresponding to EUR 100 million, were paid.

### FINANCIAL STATEMENTS - GROUP CASH FLOW STATEMENT

SEPTEMBER 1 – AUGUST 31

EUR million	Note	2017/18	2016/17
Operating profit		320.2	305.7
Non-cash adjustments	5.2	65.9	55.6
Change in working capital		(28.5)	(24.2)
Interest payments received		0.4	0.4
Interest payments made		(11.0)	(10.6)
Taxes paid		(44.6)	(43.2)
Cash flow from operating activities		302.4	283.7
Investments in intangible assets		(19.1)	(15.1)
Investments in property, plant and equipment		(88.8)	(90.9)
Sale of property, plant and equipment		0.9	2.5
Cash flow used for operational investing activities		(107.0)	(103.5)
Free operating cash flow		195.4	180.2
Acquisition of entities, net of cash acquired	5.3	-	(73.0)
Cash flow used for investing activities		(107.0)	(176.5)
Free cash flow		195.4	107.2
Borrowings		60.5	208.0
Repayment of long-term loans		(35.6)	(170.8)
Exercise of options		1.1	24.6
Purchase of treasury shares, net		(4.7)	(20.1)
Dividends paid		(216.9)	(192.2)
Cash flow used for financing activities		(195.6)	(150.5)
Net cash flow for the year		(0.2)	(43.3)
Cash and cash equivalents at September 1		73.0	119.8
Unrealized exchange gains/(losses) included in cash and cash equivalents		(3.7)	(3.5)
Net cash flow for the year		(0.2)	(43.3)
Cash and cash equivalents at August 31		69.1	73.0

#### 1.1 GENERAL ACCOUNTING POLICIES

#### ACCOUNTING POLICIES

#### **BASIS OF PREPARATION**

The Consolidated Financial Statements of the Chr. Hansen Group have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and as adopted by the European Union, and further requirements in the Danish Financial Statement Act.

### GENERAL INFORMATION ON RECOGNITION AND MEASUREMENT

The Consolidated Financial Statements have been prepared under the historical cost method, except for the measurement of certain financial instruments at fair value. The accounting policies set out below have been applied consistently in respect of the financial year 2017/18 and the comparative figures. The accounting policies are unchanged from 2016/17, except for the implementation of new and amended IFRS/IAS standards as stated below.

#### NEW AND AMENDED STANDARDS

Chr. Hansen has adopted all new or amended financial reporting standards (IFRSs) and interpretations (IFRICs) issued by the IASB and endorsed by the European Union effective for the accounting year 2017/18.

The application of new IFRSs has not had any material impact on the Consolidated Financial Statements for 2017/18, and we do not anticipate any significant impact on future periods from the adoption of these new IFRSs.

The IASB has issued new or amended standards and interpretations that are effective for financial years beginning after September 1, 2017 and have consequently not been implemented in the financial statements for 2017/18. Most relevant to the Group are the following:

- **IFRS 9 "Financial Instruments"**, which changes the classification and measurement of financial assets and liabilities, impairment methodology and general hedge accounting. The standard will be effective for financial years beginning on or after January 1, 2018.
- Chr. Hansen has performed an analysis of how the implementation of IFRS 9 will impact the Consolidated Financial Statements.

The new requirements for hedge accounting will not have an impact as Chr. Hansen's current treasury policy meets the requirements set forth in IFRS 9. The expected loss model will be applied to trade

receivables but will not significantly impact the allowance for bad debts.

- Chr. Hansen will implement the standard exercising the option for relief from restating the comparative figures.
- **IFRS 15 "Revenue from Contracts with Customers",** which clarifies the principles for recognizing revenue from contracts with customers to reflect the transfer of control of goods to customers at a value that the entity expects to be entitled to. The standard will be effective for financial years beginning on or after January 1, 2018.
- Chr. Hansen has performed an analysis of the impact, including areas such as variable considerations, right of return, licensing arrangements and agent relationships. It is assessed that the standard will not have any significant impact on how to recognize or measure revenue compared to the Group's current accounting practice.
- Chr. Hansen will implement the standard using the modified retrospective approach and exercise the option for relief from restating comparative figures and solely apply IFRS 15 to contracts that are not completed as of September 1, 2018.
- IFRS 16 "Leases", which changes the requirements for capitalization of operating leases resulting in the majority of operating leases being capitalized. The standard will be effective for financial years beginning on or after January 1, 2019. The initial analysis indicates that the new standard is expected to result in an increase in total assets of approximately 1-2% and consequently impact the related key ratios in the Consolidated Financial Statements such as EBITDA and ROIC. The analysis of the final impact on assets, liabilities, profit and classification of cash flow is not completed.

The Group expects to adopt the standards and interpretations when they become effective.

#### PRESENTATION OF ACCOUNTING POLICIES

Where possible, the accounting policies for an accounting area are presented in the individual notes for that area. Accounting policies not directly related to an area covered by a note are presented below.

#### **1.1 GENERAL ACCOUNTING POLICIES** (CONTINUED)

#### DEFINING MATERIALITY

The Consolidated Financial Statements are a result of processing large numbers of transactions and aggregating those transactions into classes according to their nature or function. When aggregated, the transactions are presented in classes of similar items in the Consolidated Financial Statements. If a line item is not individually material, it is aggregated with other items of a similar nature in the Consolidated Financial Statements or in the notes. There are substantial disclosure requirements throughout IFRS. Management provides specific disclosures required by IFRS unless the information is considered immaterial to the economic decision-making of the users of these financial statements or not applicable.

#### TRANSLATION OF FOREIGN CURRENCIES Translation from functional currency to presentation currency

Items in the financial statements of each of the reporting companies of the Group are measured in the currency of the primary economic environment in which the company operates (the functional currency).

Assets, liabilities and equity items are translated from each reporting company's functional currency to EUR at the balance sheet date. The income statements are translated from the functional currency into the presentation currency based on the average exchange rate for the individual months. Differences arising on the translation of the equity at the beginning of the period and translation of the income statement from the average rates to the exchange rate at the balance sheet date are recognized in other comprehensive income and presented as a separate reserve in equity.

The functional currency of the Parent Company is the Danish krone (DKK). However, due to the Group's international relations, the Consolidated Financial Statements are presented in Euro (EUR).

#### Translation of transactions and amounts

Transactions in foreign currencies are initially translated into the functional currency at the exchange rates at the transaction date.

Exchange adjustments arising due to differences between the transaction date rates and the rates at the payment date are recognized in financial income or financial expenses in the

income statement. Receivables, payables and other monetary items in foreign currencies not settled at the balance sheet date are translated at the exchange rates at the balance sheet date. Exchange adjustments arising due to differences between the rates at the balance sheet date and the transaction date are recognized in financial income or financial expenses in the income statement.

#### BASIS OF CONSOLIDATION

The Consolidated Financial Statements cover Chr. Hansen Holding A/S (the Parent Company) and entities over which the Parent Company has control. The Group controls an entity when the Group is exposed to, 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.

Gains or losses on the disposal or winding up of Group companies are stated as the difference between the sales amount and the carrying amount of net assets including goodwill at the date of disposal or winding up, foreign exchange adjustments recognized directly in equity, plus costs to sell or winding-up expenses.

Gains or losses on disposal or winding up of subsidiaries are recognized in the income statement under special items, while gains or losses on disposal or winding up of associates are recognized under financial income and expenses.

#### **BUSINESS COMBINATIONS**

Entities acquired or formed during the year are recognized in the Consolidated Financial Statements from the date of acquisition or formation. Entities that are disposed of or wound up are recognized in the consolidated income statement until the date of disposal or winding up. The comparative figures are not restated for entities acquired, disposed of or wound up.

#### REVENUE

Revenue is recognized in the income statement if the risk has been transferred to the purchaser at the balance sheet date, the income can be measured reliably, and expenses incurred or expected to be incurred in connection with the transaction can be measured reliably. Revenue is measured at the fair value of the consideration received excluding VAT and less commission and discounts granted in connection with the sales.

Royalty and license fees are recognized when earned according to the terms of the license agreements.

#### **1.1 GENERAL ACCOUNTING POLICIES** (CONTINUED)

#### COST OF SALES

Cost of sales comprises the cost of products sold. Cost comprises the purchase price of raw materials, consumables and goods for resale, direct labour costs and a share of indirect production costs, including costs of operation and depreciation of production facilities as well as operation, administration and management of factories.

#### OTHER OPERATING INCOME AND EXPENSES

Other operating income and expenses comprise income that is not related to the principal activities. This includes income from government grants, rental income, gains and losses on the disposal of intangible assets and property, plant and equipment, and other income of a secondary nature in relation to the main activities of the Group.

#### ALTERNATIVE PERFORMANCE MEASURES

Chr. Hansen presents certain financial measures of the Group's financial performance, financial position and cash flows that are not defined according to IFRS.

These non-IFRS financial measures may not be defined and calculated by other companies using the same method and may not be comparable.

The financial measures should not be considered as a replacement for performance measures as defined under IFRS, but rather as supplementary information.

#### CALCULATION OF KEY FIGURES AND FINANCIAL RATIOS

EBITDA before special items	Operating profit adjusted for depreciation, amortization, impairment and special items
EBIT before special items	Operating profit adjusted for special items
EBIT	Operating profit
Invested capital	Intangible assets, property, plant and equipment, trade receivables and inventories less trade payables
Net working capital	Inventories and trade receivables less trade payables
Net interest-bearing debt	Borrowings from financial institutions less cash and cash equivalents
Free cash flow before	Free cash flow adjusted for cash effect of special items and acquisitions
special items and acquisitions	
Earnings per share, diluted	Profit for the year divided by the average number of shares excluding treasury shares fully diluted for share options and performance shares in the money, in accordance with IAS 33
Organic growth	Increase in revenue adjusted for sales reductions, acquisitions and divestments, and measured in local currencies
ROIC excl. Goodwill	Operating profit before special items as a percentage of average invested capital excl. goodwill
Capital expenditure	Investments for the year in intangible assets and property, plant and equipment divided by revenue
Cash conversion	EBITDA before special items less capital expenditures and changes in net working capital as a percentage of EBITDA before special items
Other key ratios	Other key ratios used are measured as a percentage of revenue

#### 1.2 SUMMARY OF KEY ACCOUNTING ESTIMATES

#### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

In preparing the Consolidated Financial Statements, Management makes various accounting estimates and assumptions that form the basis of the presentation, recognition and measurement of the Group's assets and liabilities. The most significant accounting estimates and judgments are presented below.

In applying the Group's accounting policies, Management makes judgments that may significantly influence the amounts recognized in the Consolidated Financial Statements. Determining the carrying amount of some assets and liabilities requires judgments, estimates and assumptions to be made concerning future events.

The judgments, estimates and assumptions made are based on historical experience and other factors that Management considers to be reliable, but which are inherently associated with uncertainty and unpredictability. These assumptions may prove incomplete or incorrect, and unexpected events or circumstances may arise. The most critical judgments, estimates and assumptions for the individual items are described below. The Group is also subject to risks and uncertainties that may lead to actual results differing from these estimates, either positively or negatively.

Assumptions about the future and estimation uncertainty at the balance sheet date are described in the notes where there is a significant risk of changes that could result in material adjustments to the carrying amounts of assets or liabilities within the next financial year.

Management considers the key accounting estimates and assumptions used in the preparation of the Consolidated Financial Statements to relate to the following:

- Note 2.8 Income taxes and deferred tax
- Note 3.1 Goodwill
- Note 3.2 Other intangible assets
- Note 3.4 Inventories
- Note 5.3 Acquisition of entities

See the specific notes for further information on the key accounting estimates and assumptions applied.

#### **2.1 SEGMENT INFORMATION**

#### ACCOUNTING POLICIES

Segment information is provided on the Group's three business units: Food Cultures & Enzymes, Health & Nutrition and Natural Colors. The information is based on the management structure and internal management reporting to the Corporate Leadership Team and the Executive Board, and constitutes our reportable segments.

The identification of the segments on which to report does not involve aggregation of operating segments. The recognition and measurement principles used in the segment information are identical to the ones used in the Consolidated Financial Statements. The geographic distribution of revenue is based on customers' location. When presenting segment information from the income statement and balance sheet, disclosed amounts are split according to internal management information. Some costs, assets and liabilities are not directly attributable to the three business units and have to be distributed according to allocation keys used in internal Management reporting. These allocation keys are reassessed at least annually, based on planned activity in the three business units, and are subject to Management's judgment.

#### Segment information

The reportable segments are based on the segmentation in the internal financial reporting received by the Corporate Leadership Team and the Executive Board. The reportable segments are business units offering customers different products and services.

Food Cultures & Enzymes produces and sells innovative cultures, enzymes and probiotic products that help determine the taste, flavor, texture, shelf life, nutritional value and health benefits of a variety of consumer products in the food industry, especially in the dairy industry. Health & Nutrition produces and sells products for the dietary supplement, over-the-counter pharmaceutical, infant formula, animal feed and plant protection industries.

Natural Colors supplies natural color solutions to the food  $\&\xspace$  beverage industry.

Segment performance is evaluated on the basis of EBIT before special items consistent with the Consolidated Financial Statements. Special items, financial income and expenses, and income taxes are managed at Group level and are not allocated to the business units.

# **2.1 SEGMENT INFORMATION** (CONTINUED)

EUR million	Food Cultures & Enzymes	Health & Nutrition	Natural Colors	2017/18 Group
INCOME STATEMENT				
Revenue	647.2	230.9	219.3	1,097.4
EUR growth	5%	3%	0%	3%
Organic growth	12%	8%	5%	9%
EBITDA	261.1	89.4	33.5	384.0
EBITDA margin	40.3%	38.7%	15.2%	35.0%
Depreciation, amortization and impairment losses	(38.9)	(17.8)	(7.1)	(63.8)
EBIT before special items	222.2	71.6	26.4	320.2
EBIT margin before special items	34.3%	31.0%	12.0%	29.2%
Special items and net financial expenses				(24.1)
Profit before tax				296.1
ASSETS				
Goodwill	529.8	231.9	-	761.7
Other intangible assets	96.9	105.0	17.3	219.2
Intangible assets	626.7	336.9	17.3	980.9
Property, plant and equipment	304.4	111.3	45.8	461.5
Total non-current assets excluding deferred tax	931.1	448.2	63.1	1,442.4
Inventories	71.0	26.2	49.7	146.9
Trade receivables	89.8	35.5	35.5	160.8
Trade payables	(58.3)	(22.3)	(38.0)	(118.6)
Net working capital	102.5	39.4	47.2	189.1
Assets not allocated				111.0
Group assets				1,861.1
Invested capital excluding goodwill	503.8	255.7	110.3	869.8
ROIC excluding goodwill	45.6%	29.0%	24.6%	38.0%
Investment in non-current assets excluding deferred tax	68.6	27.6	11.7	107.9

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## **2.1 SEGMENT INFORMATION** (CONTINUED)

EUR million			Γ	2016/17
	Food Cultures	Health &	Natural	_
	& Enzymes	Nutrition	Colors	Group
INCOME STATEMENT				
Revenue	617.5	224.7	220.3	1,062.5
EUR growth	9%	22%	10%	12%
Organic growth	9%	14%	10%	10%
EBITDA	249.5	83.5	35.1	368.1
EBITDA margin	40.4%	37.2%	16.0%	34.6%
Depreciation, amortization and impairment losses	(36.4)	(18.0)	(6.6)	(61.0)
EBIT before special items	213.1	65.5	28.5	307.1
EBIT margin before special items	34.5%	29.2%	12.9%	28.9%
Special items and net financial expenses				(16.2)
Profit before tax				290.9
ASSETS				
Goodwill	534.6	232.6	-	767.2
Other intangible assets	105.4	106.7	15.8	227.9
Intangible assets	640.0	339.3	15.8	995.1
Property, plant and equipment	271.0	93.6	46.6	411.2
Total non-current assets excluding deferred tax	911.0	432.9	62.4	1,406.3
Inventories	66.0	24.6	44.6	135.2
Trade receivables	83.6	32.6	33.8	150.0
Trade payables	(54.5)	(19.3)	(36.6)	(110.4)
Net working capital	95.1	37.9	41.8	174.8
Assets not allocated				110.6
Group assets				1,802.1
Invested capital excluding goodwill	471.5	238.2	104.2	813.9
ROIC excluding goodwill	47.1%	29.8%	30.3%	40.1%
Investment in non-current assets excluding deferred tax	68.3	26.4	11.3	106.0

## **2.1 SEGMENT INFORMATION**

(CONTINUED)

EUR million					2017/18
	EMEA*	North America**	LATAM	APAC	Group
GEOGRAPHIC ALLOCATION					
Revenue	491.6	281.6	138.0	186.2	1,097.4
EUR growth	6%	(5)%	2%	12%	3%
Organic growth	8%	3%	19%	16%	9%
Non-current assets excluding deferred tax***	1,239.3	160.9	29.2	13.0	1,442.4

\* Includes Denmark, which accounts for 1% of total revenue, corresponding to EUR 11.0 million. \*\* Includes the US, which accounts for 24% of total revenue, corresponding to EUR 263.4 million.

\*\*\* Non-current assets in Denmark amount to EUR 953.6 million.

EUR million	EMEA*	North America**	LATAM	APAC	2016/17 Group
Revenue	464.0	297.2	135.5	165.8	1,062.5
EUR growth	8%	19%	9%	15%	12%
Organic growth	7%	13%	10%	16%	10%
Non-current assets excluding deferred tax***	1,201.2	158.1	33.0	14.0	1,406.3

\* Includes Denmark, which accounts for 1% of total revenue, corresponding to EUR 10.6 million. \*\* Includes the US, which accounts for 26% of total revenue, corresponding to EUR 276.3 million. \*\*\* Non-current assets in Denmark amount to EUR 924.5 million.

# 2.2 DEPRECIATION, AMORTIZATION AND IMPAIRMENT LOSSES

### ACCOUNTING POLICIES

The accounting policies on depreciation, amortization and impairment losses are specified in notes 3.1, 3.2 and 3.3.

EUR million	2017/18	2016/17
AMORTIZATION AND IMPAIRMENT LOSSES		l
INTANGIBLE ASSETS		l
Cost of sales	(4.7)	(4.5)
Research and development expenses	(6.9)	(8.5)
Sales and marketing expenses	(13.8)	(13.5)
Administrative expenses	(1.8)	(1.8)
Total	(27.2)	(28.3)
DEPRECIATION AND WRITE-DOWN		l
PROPERTY, PLANT AND EQUIPMENT		l
Cost of sales	(28.1)	(25.1)
Research and development expenses	(4.1)	(3.8)
Sales and marketing expenses	(1.1)	(1.1)
Administrative expenses	(3.3)	(2.7)
Total	(36.6)	(32.7)
Total depreciation, amortization and impairment losses	(63.8)	(61.0)

## **2.3 STAFF EXPENSES**

EUR million	2017/18	2016/17
Wages and salaries, etc.	(230.0)	(221.0)
Pension expenses - defined contribution plans	(18.3)	(16.9)
Pension expenses - defined benefit plans (note 3.6)	(0.4)	(0.4)
Social security, etc.	(21.1)	(20.8)
Total	(269.8)	(259.1)
Average number of employees (FTE)	3,151	2,940



#### **Remuneration of the Board of Directors and Executive Board**

Total fees to key management personnel, comprising the Board of Directors and Executive Board, amounted to EUR 4.3 million in 2017/18 and EUR 4.2 million in 2016/17.

Members of the Executive Board receive a fixed salary, pension and bonus based on corporate and individual KPIs. The size of the bonus is subject to certain financial and non-financial targets being met. If a member is dismissed, the ordinary salary is paid for an 18-month notice period. In the event of change of control, members of the Executive Board do not receive any additional compensation.

#### **Board of Directors**

Total fees to the Board of Directors amounted to EUR 1.1 million in 2017/18 and EUR 1.0 million in 2016/17.

Executive Board					2017/18
				Share-based	
EUR million	Salary	Bonus <sup>1</sup>	Pension	payment <sup>2</sup>	Total
Mauricio Graber <sup>3</sup>	(0.25)	-	(0.05)	(0.21)	(0.51)
Søren Westh Lonning	(0.37)	(0.17)	(0.07)	(0.13)	(0.74)
Christoffer Lorenzen⁴	(0.22)	-	(0.04)	(0.08)	(0.34)
Thomas Schäfer⁵	(0.24)	-	(0.04)	(0.03)	(0.31)
Cees de Jong <sup>6</sup>	(0.62)	(0.47)	(0.12)	(0.13)	(1.34)
Total	(1.70)	(0.64)	(0.32)	(0.58)	(3.24)
				_	

				Share-based	
	Salary	Bonus <sup>1</sup>	Pension	payment <sup>2</sup>	Total
Cees de Jong	(0.84)	(0.39)	(0.16)	(0.41)	(1.80)
Søren Westh Lonning	(0.34)	(0.15)	(0.06)	(0.06)	(0.61)
Knud Vindfeldt <sup>7</sup>	(0.25)	(0.21)	(0.04)	(0.33)	(0.83)
Total	(1.43)	(0.75)	(0.26)	(0.80)	(3.24)

1) The amounts express the actual bonus payments during the year.

The amounts are based on the principles set out in note 5.1.
 Member of the Executive Board since June 1, 2018.

4) Member of the Executive Board since June 1, 2018.

5) Member of the Executive Board since February 1, 2010.

6) Member of the Executive Board until May 31, 2018.

7) Member of the Executive Board until February 28, 2017.

2016/17

# **2.3 STAFF EXPENSES** (CONTINUED)

		2017/18	2016/17
Joined	Resigned		
February 2010		(0.24)	(0.23)
November 2013		(0.16)	(0.16)
November 2017		(0.06)	-
November 2016		(0.09)	(0.07)
November 2017		(0.04)	-
November 2017		(0.04)	-
November 2017		(0.06)	-
November 2013		(0.06)	(0.05)
November 2017		(0.04)	-
November 2014		(0.09)	(0.07)
October 2010		(0.13)	(0.12)
November 2013	January 2017	-	(0.02)
November 2012	November 2016	-	(0.02)
January 2006	November 2017	(0.01)	(0.05)
November 2014	November 2017	(0.02)	(0.07)
November 2006	November 2017	(0.02)	(0.09)
		(1.06)	(0.95)
	February 2010 November 2013 November 2017 November 2017 November 2017 November 2017 November 2017 November 2013 November 2014 October 2010 November 2013 November 2013 November 2012 January 2006 November 2014	February 2010       February 2010         November 2013       Image: Comparent of the stress of	Joined         Resigned           February 2010         (0.24)           November 2013         (0.16)           November 2017         (0.06)           November 2016         (0.09)           November 2017         (0.04)           November 2017         (0.04)           November 2017         (0.04)           November 2017         (0.06)           November 2017         (0.06)           November 2013         (0.06)           November 2013         (0.06)           November 2017         (0.04)           November 2013         (0.06)           November 2013         (0.01)           November 2014         (0.09)           October 2010         (0.13)           November 2013         January 2017           November 2012         November 2017           November 2012         November 2016           January 2006         November 2017           November 2014         November 2017           November 2014         November 2017           November 2015         (0.02)           November 2016         -

### 2.3 STAFF EXPENSES (CONTINUED)

#### Shares

Shares in Chr. Hansen Holding A/S held by members of the Board of Directors and the Executive Board:

Number of shares	Beginning of the year	Bought during the year	Sold during the year	End of the year
Ole Andersen	16,666	-	-	16,666
Dominique Reiniche	1,462	-	-	1,462
Jesper Brandgaard	1,952	-	-	1,952
Luis Cantarell	1,400	-	-	1,400
Lisbeth Grubov	70	30	-	100
Charlotte Hemmingsen	992	-	-	992
Heidi Kleinbach-Sauter	-	-	-	-
Per Poulsen	150	-	-	150
Kim Ib Sørensen	20	-	-	20
Kristian Villumsen	1,500	-	-	1,500
Mark Wilson	3,000	-	-	3,000
Total	27,212	30	-	27,242
Mauricio Graber	-	10,000	-	10,000
Søren Westh Lonning	2,644	857	-	3,501
Christoffer Lorenzen	2,715	1,801	-	4,516
Thomas Schäfer	-	2,262	-	2,262
Total	5,359	14,920	-	20,279

Each director elected by the General Meeting must, no later than 12 months after appointment to the Board of Directors, purchase shares in the Company corresponding to an amount of at least one year's base fee. The director must maintain a shareholding corresponding to at least one year's base fee for as long as he/she is a member of the Company's Board of Directors. The Executive Board has undertaken to maintain ownership of shares in Chr. Hansen, either directly or indirectly as specified in note 5.1, with a minimum value corresponding to six months of the executive officer's gross base salary.

## **2.4 FEES TO AUDITORS**

EUR million	2017/18	2016/17
PricewaterhouseCoopers		
Statutory audit	(0.6)	(0.7)
Audit-related services	-	-
Tax advisory services	(0.1)	(0.1)
Other services	(0.1)	(0.1)
Total	(0.8)	(0.9)

Fee for other services than statutory audit services rendered by PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab to the Group amounts to EUR 0.1 million and consists mainly of advisory services.

### **2.5 SPECIAL ITEMS**

#### ACCOUNTING POLICIES

Special items comprise material amounts that cannot be attributed to recurring operations, such as income and expenses related to divestment, closure or restructuring of subsidiaries and business lines from the time the decision is made. Also classified as special items are, if major, gains and losses on disposal of subsidiaries not qualifying for recognition as discontinued operations in the income statement, as well as transaction costs and adjustments to purchase prices relating to the acquisition of entities. Material non-recurring income and expenses that originate from prior years or from projects related to the strategy for the development of the Group and process optimizations are classified as special items.

EUR million	2017/18	2016/17
Costs related to the acquisition and integration of LGG $\ensuremath{^{\mbox{\scriptsize BG}}}$ Total	-	(1.4) (1.4)

The special items for 2016/17 comprise 55% staff costs and 45% other external costs.

## **2.6 FINANCIAL INCOME**

#### ACCOUNTING POLICIES

Financial income and expenses comprise interest receivable and interest payable, commission, the interest component of payments under finance leases, surcharges and refunds under Denmark's on-account tax scheme, and value adjustments of financial fixed assets, derivative financial instruments and items denominated in a foreign currency.

EUR million	2017/18	2016/17
Interest income	1.6	0.4
Foreign exchange gains	34.3	21.5
Foreign exchange gains on derivatives	1.5	2.6
Total	37.4	24.5

## **2.7 FINANCIAL EXPENSES**

#### ACCOUNTING POLICIES

See note 2.6 above.

EUR million	2017/18	2016/17
Interest expenses	(9.3)	(8.4)
Borrowing costs related to construction of assets	0.6	0.4
Foreign exchange losses	(46.3)	(25.4)
Foreign exchange losses on derivatives	(1.4)	(1.7)
Losses on derivatives transferred from other comprehensive income	(1.1)	(1.7)
Other financial expenses including amortized costs	(4.0)	(2.5)
Total	(61.5)	(39.3)

Effective interest expenses amounted to EUR 10.4 million (EUR 10.1 million in 2016/17).

The capitalization rate used to determine the amount of borrowing costs eligible for capitalization is 0.56%.

### 2.8 INCOME TAXES AND DEFERRED TAX

#### ACCOUNTING POLICIES

Current tax liabilities and receivables are recognized in the balance sheet at the amounts calculated on the taxable income for the year, adjusted for tax on taxable incomes for prior years and for taxes paid on account.

Deferred tax is measured using the balance sheet liability method in respect of all temporary differences between the carrying amount and the tax base of assets and liabilities. Apart from assets acquired as part of business combinations, deferred tax is not recognized in respect of temporary differences concerning goodwill, office premises and other items where temporary differences have arisen at the time of acquisition without affecting profit for the year or taxable income. In cases where the computation of the tax base may be performed according to different tax rules, deferred tax is measured on the basis of Management's intended use of the asset or settlement of the liability.

#### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

Tax and transfer pricing disputes arise from time to time as cross-border transactions receive increasing attention from local tax authorities. The Group recognizes tax assets and liabilities in order to always fulfil tax requirements in all the countries where business is conducted. Management assesses tax assets and liabilities at least annually, based on dialogue with local tax authorities, tax advisors, business plans and knowledge of the business.

EUR million	2017/18	2016/17
Income taxes		
Current tax on profit for the year	(62.1)	(61.4)
Change in deferred tax concerning profit for the year	(5.9)	(6.3)
Tax on profit for the year	(68.0)	(67.7)
Adjustments concerning previous years	0.1	0.8
Tax in the income statement	(67.9)	(66.9)
Tax on other comprehensive income	(0.3)	0.5

		2017/18		2016/17
Reconciliation of tax rate			-	
Danish tax rate	22.0%	(65.1)	22.0%	(64.0)
Deviation of non-Danish Group companies from Danish tax rate	1.1%	(3.4)	1.5%	(4.2)
Non-taxable income and non-deductible expenses	(0.3)%	0.7	(0.3)%	0.8
Adjustments concerning previous years	0.0%	0.1	(0.3)%	0.8
Other taxes	0.1%	(0.2)	0.1%	(0.3)
Effective tax rate	22.9%		23.0%	
Tax on profit for the year		(67.9)		(66.9)

# **2.8 INCOME TAXES AND DEFERRED TAX** (CONTINUED)

EUR million	2017/18	2016/17
Deferred tax		
Deferred tax at September 1	63.9	56.6
Currency translation	(0.3)	0.2
Change in deferred tax - recognized in the income statement	10.8	7.1
Change in deferred tax - recognized through equity	(0.2)	-
Deferred tax at August 31	74.2	63.9
Deferred tax assets	(7.4)	(8.2)
Deferred tax liabilities	81.6	72.1
Deferred tax at August 31	74.2	63.9
Specification of deferred tax		
Intangible assets	57.8	49.1
Property, plant and equipment	22.7	21.6
Non-current assets	(0.1)	(0.5)
Tax loss carryforwards	(1.3)	(1.3)
Liabilities	(4.9)	(5.0)
Total deferred tax at August 31	74.2	63.9
Amounts due after 12 months, estimated	73.8	63.9
Tax loss carryforwards		
Total tax loss carryforwards	6.9	9.0
Tax losses expected to be utilized	3.8	4.5
Deferred tax assets from tax losses recognized in the balance sheet	1.3	1.3

## **2.9 EARNINGS PER SHARE**

EUR million	2017/18	2016/17
Profit from continuing operations	228.2	224.0
Profit for the year attributable to shareholders of Chr. Hansen Holding A/S	228.2	224.0
Average number of shares	131,852,496	131,852,496
Average number of treasury shares	(216,126)	(403,718)
Average number of shares excluding treasury shares	131,636,370	131,448,778
Average dilutive effect of share options	167,483	1,664,764
Average number of shares, diluted	131,803,853	133,113,542
Earnings per share (EUR)	1.73	1.70
Earnings per share, diluted (EUR)	1.73	1.68

## 3.1 GOODWILL

#### ACCOUNTING POLICIES

Goodwill represents the excess of the cost of an acquisition over the fair value of the identifiable net assets of the acquired company.

The carrying amount of goodwill is allocated to the Group's cash-generating units, which are the operating segments at the acquisition date.

#### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

Goodwill is tested annually for impairment, whereby an estimate is made to determine whether the parts of the entity (cash-generating units) related to the goodwill will be able to generate sufficient future positive net cash flows to support the value of goodwill, trademarks with an indefinite useful life and other net assets of the entity in question. The estimate of future free net cash flows is based on budgets and business plans for the coming five years and on projections for subsequent years. Budgets and business plans are based on specific future business initiatives for which the risks relating to key parameters have been assessed and recognized in estimated future free cash flows. Projections for years following the five-year period are based on general expectations and risks. Key parameters are revenue development, profit margins, proposed capital expenditure and growth expectations.

The discount rate used to calculate recoverable amounts is the weighted average cost of capital before tax.

EUR million	2018	2017
Cost at September 1	767.2	726.5
Currency translation	(5.5)	(6.7)
Addition	-	47.4
Cost at August 31	761.7	767.2
The carrying amount of goodwill has been allocated to the identified cash-generating units according to the operating segments as follows:		
Food Cultures & Enzymes	529.8	534.6
Health & Nutrition	231.9	232.6
Total	761.7	767.2

# **3.1 GOODWILL** (CONTINUED)

There were no additions to goodwill in 2017/18. (2016/17 purchase of  $LGG^*$  fully allocated to the Health & Nutrition business unit).

At August 31, 2018, Management performed an impairment test of the carrying amount of goodwill. No basis for impairment was found. The impairment tests compare the carrying amount of the assets to the discounted value of future cash flows. The future cash flows are based on budgets and Management's estimates of the expected development in the next five years reflecting the updated strategy Natures no. 1. Revenue, EBIT, working capital, discount rate and growth assumptions constitute the most material parameters in the calculations.

At August 31, 2018, an average growth rate of 7% (8% in 2016/17) in the five-year period has been applied for revenue in the Food Cultures & Enzymes business unit fully leveraging the potential of Food Cultures & Enzymes in the form of new innovation for yields and functionality, reinforcing positions in emerging markets and driving scalability.

In the Health & Nutrition business unit, an average growth rate of 10% (10% in 2016/17) in the five-year period has been applied for revenue, in alignment with our long-term ambitions for organic growth in Health & Nutrition based on developing the microbial solutions platform and reinvesting in future growth.

The expected growth rate is based on the Company's own market intelligence process, through which information is collected from all key markets to form the basis for future market growth expectations. As a market leader with a global presence, the Company has a unique opportunity to assess the market through direct interactions with customers. The internal expectations are, however, then verified against available market data from external resources, including global market intelligence and research companies.

As well as market growth, the Company also assesses commercial opportunities for conversion of customers to the Company's products, pricing and upselling to existing customers within the five-year period to establish expectations for growth above the expected level of market growth. The assessment is based on the Company's current product portfolio, and ongoing and potential new projects with existing and potential new customers.

A conservative approach has been taken in applying the growth rates for revenue, using the lower range of the long-term financial ambitions set out in Nature's no. 1. Overall, an expected improvement in EBIT margin in the five-year period increasing to above 30% for the Group has been applied for both business units. A pre-tax discount rate of 8% (10% in 2016/17) has been applied in the impairment test for both business units.

## **3.2 OTHER INTANGIBLE ASSETS**

#### ACCOUNTING POLICIES

Research expenses are recognized in the income statement as they are incurred. Development costs are recognized as intangible assets if the costs are expected to generate future economic benefits.

Costs for development and implementation of substantial software and IT systems are capitalized and amortized over their expected useful lives.

Trademarks, patents and customer lists acquired are recognized at cost and amortized over their expected useful lives.

Other intangible assets are measured at cost less accumulated amortization and impairment losses. Borrowing costs in respect of construction of assets are capitalized when it takes more than 12 months for them to be ready for use.

Amortization is carried out systematically over the expected useful lives of the assets:

•	Customer lists	7-15 years
•	Patents, trademarks and rights	5-20 years
•	Software	5-10 years
•	Development projects	3-15 years

#### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

Finished development projects are reviewed at the time of completion and on an annual basis to determine whether there is any indication of impairment. If there is, an impairment test is carried out for the individual development projects. For development projects in progress, however, an annual impairment test is always performed. The impairment test is performed on the basis of various factors, including future use of the project, the fair value of estimated future earnings or savings, interest rates and risks.

For development projects in progress, Management estimates on an ongoing basis whether each project is likely to generate future economic benefits for the Group in order to qualify for recognition. The development projects are evaluated on technical as well as commercial criteria.

### **3.2 OTHER INTANGIBLE ASSETS** (CONTINUED)

EUR million	Trade- marks	Patents	Develop- ment projects	Software	Develop- ment projects in progress	Other intangible assets in progress	2018 Total
Cost at September 1	170.6	103.9	60.8	54.6	30.8	5.2	425.9
Currency translation	(0.2)	(0.1)	(0.2)	(0.3)	-	(0.1)	(0.9)
Additions from acquisition	-	-	-	-	-	-	-
Additions for the year	-	-	0.6	1.5	12.0	5.0	19.1
Disposals for the year	-	-	-	-	(0.2)	-	(0.2)
Transferred	-	-	5.0	2.3	(5.0)	(2.3)	-
Cost at August 31	170.4	103.8	66.2	58.1	37.6	7.8	443.9
Amortization and impairment							
at September 1	(101.2)	(36.0)	(27.5)	(33.3)	-	-	(198.0)
Currency translation	0.4	(0.1)	0.2	-	-	-	0.5
Amortization for the year	(8.0)	(7.0)	(6.6)	(5.6)	-	-	(27.2)
Disposals for the year	-	-	-	-	-	-	-
Impairment	-	-	-	-	-	-	-
Amortization and impairment at August 31	(108.8)	(43.1)	(33.9)	(38.9)	-	-	(224.7)
Carrying amount at August 31	61.6	60.7	32.3	19.2	37.6	7.8	219.2
Salary expenses for the year included in asset	s above				8.3	2.7	
Interest for the year included in assets above					0.1	-	

## **3.2 OTHER INTANGIBLE ASSETS** (CONTINUED)

EUR million						[	2017
	Trade-		Develop- ment		Develop- ment projects in	Other intangible assets in	
	marks	Patents	projects	Software	progress	progress	Total
Cost at September 1	165.6	85.1	64.1	49.4	25.5	7.0	396.7
Currency translation	-	(0.5)	-	(0.2)	-	-	(0.7)
Additions from acquisition	5.0	19.3	-	-	-	-	24.3
Additions for the year	-	-	0.8	0.9	10.0	3.4	15.1
Disposals for the year	-	-	(7.3)	(0.1)	(1.6)	-	(9.0)
Transferred	-	-	3.2	4.6	(3.1)	(5.2)	(0.5)
Cost at August 31	170.6	103.9	60.8	54.6	30.8	5.2	425.9
Amortization and impairment							
at September 1	(93.1)	(29.3)	(28.0)	(28.5)	-	-	(178.9)
Currency translation	-	0.1	-	0.2	-	-	0.3
Amortization for the year	(8.1)	(6.8)	(6.6)	(5.2)	-	-	(26.7)
Disposals for the year	-	-	7.1	0.2	1.6	-	8.9
Impairment	-	-	-	-	(1.6)	-	(1.6)
Amortization and impairment							
at August 31	(101.2)	(36.0)	(27.5)	(33.3)	-	-	(198.0)
Carrying amount at August 31	69.4	67.9	33.3	21.3	30.8	5.2	227.9
Salary expenses for the year included in as	sets above				7.1	1.4	

Interest for the year included in assets above

#### Trademarks

Of the trademarks, the carrying amount of the Chr. Hansen trademark alone at August 31, 2018 is EUR 16.6 million, with a remaining amortization period of seven years.

#### **Development projects**

Completed development projects and development projects in progress comprise development and testing of new strains for cultures, enzymes and natural colors as well as production techniques. The value of the development projects recognized has been compared to expected sales or cost savings. In cases where indications of impairment have been identified, the relevant assets have been written down. The impairment tests have been prepared similarly to the goodwill impairment test described in note 3.1, based on the value in use of the assets.

0.1

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Chr. Hansen has not recognized any impairment losses in 2017/18 (EUR 1.6 million in 2016/17 in respect of capitalized development costs assessed not to be commercially feasible in light of latest knowledge of market potential (Health & Nutrition).

#### Software

Software comprises expenses for acquiring software licenses and expenses related to internally developed software. The value of the recognized software has been compared to the expected value in use. No indications of impairment have been identified.

### 3.3 PROPERTY, PLANT AND EQUIPMENT

#### ACCOUNTING POLICIES

Property, plant and equipment are measured at cost less accumulated depreciation and less any accumulated impairment charges. Property, plant and equipment in progress are measured at cost. Cost comprises expenses for materials, other expenses directly related to making the asset ready for use and re-establishment expenses, provided that a corresponding provision is made at the same time. Borrowing costs in respect of construction of assets are capitalized when it takes more than 12 months for the assets to be ready for use. The useful lives of the individual groups of assets are estimated as follows:

• Buildings	25-50 years
<ul> <li>Plant and machinery</li> </ul>	5-20 years
<ul> <li>Other fixtures and equipment</li> </ul>	3-10 years

Land is not depreciated.

Depreciation is computed on a straight-line basis.

Gains and losses on the disposal of property, plant and equipment are recognized in the income statement under other operating income and other operating expenses.

# **3.3 PROPERTY, PLANT AND EQUIPMENT** (CONTINUED)

EUR million

	Land and buildings	Plant and machinery	Other fixtures and equip- ment	Property, plant and equip- ment in progress	Total
Cost at September 1	209.7	345.2	48.9	94.8	698.6
Currency translation	(0.5)	(1.3)	(1.4)	(0.3)	(3.5)
Additions from acquisition	-	-	-	-	-
Additions for the year	2.5	14.5	3.8	68.0	88.8
Disposals for the year	(0.2)	(0.6)	(0.4)	-	(1.2)
Transferred	9.4	45.6	4.4	(59.4)	-
Cost at August 31	220.9	403.4	55.3	103.1	782.7
Depreciation and write-down at September 1	(68.1)	(193.4)	(25.9)	-	(287.4)
Currency translation	0.4	1.0	0.9	-	2.3
Depreciation and write-down for the year*	(8.1)	(23.1)	(5.4)	-	(36.6)
Disposals for the year	0.2	0.2	0.1	-	0.5
Depreciation and write-down at August 31	(75.6)	(215.3)	(30.3)	-	(321.2)
Carrying amount at August 31	145.3	188.1	25.0	103.1	461.5
Salary expenses for the year included in assets above				10.4	
Interest for the year included in assets above, see note 2.7 for the interest rate applied				0.3	

\* No write-downs have been made in 2017/18

Land and buildings include buildings on land leased for an unlimited term from Scion DTU A/S at Hørsholm, Denmark, at EUR 17.0 million (EUR 18.2 million in 2016/17).

Value of mortgaged property, plant and equipment, see note 3.8 regarding other guarantees and commitments at EUR 204.2 million (EUR 167.4 million in 2016/17).

2018

# **3.3 PROPERTY, PLANT AND EQUIPMENT** (CONTINUED)

EUR million				[	2017
	Land and buildings	Plant and machinery	Other fixtures and equip- ment	Property, plant and equip- ment in progress	Total
Cost at September 1	201.3	320.5	39.7	55.7	617.2
Currency translation	(2.3)	(3.1)	(1.1)	(0.4)	(6.9)
Additions from acquisition	-	2.0	-	-	2.0
Additions for the year	7.5	12.6	5.1	65.7	90.9
Disposals for the year	(0.6)	(2.9)	(1.6)	-	(5.1)
Transferred	3.8	16.1	6.8	(26.2)	0.5
Cost at August 31	209.7	345.2	48.9	94.8	698.6
Depreciation and write-down at September 1	(62.4)	(178.0)	(23.5)	-	(263.9)
Currency translation	1.4	2.4	1.0	-	4.8
Depreciation and write-down for the year*	(7.6)	(20.5)	(4.6)	-	(32.7)
Disposals for the year	0.5	2.7	1.2	-	4.4
Depreciation and write-down at August 31	(68.1)	(193.4)	(25.9)	-	(287.4)
Carrying amount at August 31	141.6	151.8	23.0	94.8	411.2
Salary expenses for the year included in assets above				8.4	
Interest for the year included in assets above, see note 2.7 for the i	nterest rate a	pplied		0.3	

\* No write-downs were made in 2016/17

## **3.4 INVENTORIES**

#### ACCOUNTING POLICIES

Inventories are measured at the lower of cost and net realizable value. Cost is determined using the first-in, firstout method.

The cost of goods for resale and raw materials and consumables comprises purchase price plus delivery costs. Finished goods and work in progress are measured at cost, comprising costs incurred to bring the product to the current completion stage and location. Costs include the cost of raw materials, consumables, direct wages and salaries and indirect production overheads. Indirect production overheads comprise indirect materials, wages and salaries, maintenance and depreciation of production machinery, buildings and equipment, and production administration and management.

#### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

The calculation of indirect production costs is reviewed regularly in order to ensure that relevant assumptions such as prices, production yield and measures of utilization are incorporated correctly. Changes in the parameters, assumed production yield and utilization levels, etc. could have a significant impact on cost and, in turn, on the valuation of inventories and production costs.

EUR million	2018	2017
Direct materials	88.4 58.5	84.0 51.2
Other direct and indirect production costs Total	58.5 <b>146.9</b>	<b>135.2</b>
Movements in inventory write-downs:		
Inventory write-downs at September 1	3.1	4.1
Inventory write-downs during the year	2.9	2.4
Utilization of inventory write-downs	(2.4)	(3.4)
Inventory write-downs at August 31	3.6	3.1

## **3.5 TRADE RECEIVABLES**

#### ACCOUNTING POLICIES

Receivables are initially recognized at fair value, adjusted for any transaction costs. Subsequently, receivables are measured at amortized cost less allowances for bad debts. Allowances for bad debts are determined on the basis of an individual assessment of each receivable, taking into consideration the period overdue and the expected likelihood of receiving payment.

EUR million	2018	2017
Aging of receivables:		
Not due	148.4	141.5
0-30 days overdue	8.6	6.0
31-60 days overdue	1.9	1.4
61-120 days overdue	1.3	0.7
> 120 days overdue	0.6	0.4
Total trade receivables	160.8	150.0
Allowances for bad debts:		
Allowances at September 1	0.8	0.8
Additions for the year	0.8	0.8
Reversals for the year	(0.3)	(0.8)
Allowances at August 31	1.3	0.8

### 3.6 EMPLOYEE BENEFIT OBLIGATIONS

#### ACCOUNTING POLICIES

Contributions to defined contribution plans are charged to the income statement in the year to which they relate. In a few countries, the Group still operates defined benefit plans. The costs for the year of defined benefit plans are determined using the projected unit credit method. This reflects services rendered by employees up to the valuation dates and is based on actuarial assumptions, primarily regarding discount rates used in determining the present value of benefits and projected rates of remuneration growth. Discount rates are based on the market yields of high-rated corporate bonds in the country concerned. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to other comprehensive income in the period in which they arise. Past service costs are recognized immediately in the income statement. Pension assets are only recognized to the extent that it is possible to derive future economic benefits such as refunds from the plan or reductions of future contributions. The Group's defined benefit plans are usually funded by payments from Group companies and by employees to funds independent of the Group. Where a plan is unfunded, a liability for the retirement obligation is recognized in the balance sheet.

#### Employee benefit plans in the Group

Other employee benefit obligations consist of obligations regarding payments made in connection with employee service tenure, long-service benefits and other social benefits.

The Group has entered into pension agreements with a significant share of its employees. The majority of the plans are defined contribution plans, and only a small proportion are defined benefit plans.

#### **Defined contribution plans**

The Group finances the plans through regular premium payments to independent insurance companies, which are responsible for the pension obligations. Once the pension contributions to the defined contribution plans have been paid, the Group has no further pension obligations toward current or resigned employees.

#### Defined benefit plans

For certain groups of employees, the Group has entered into agreements on the payment of certain benefits, including pensions. These obligations are not or only partly covered by insurance. Unfunded plans have been recognized in the balance sheet, income statement and other comprehensive income as shown below.

# **3.6 EMPLOYEE BENEFIT OBLIGATIONS** (CONTINUED)

EUR million	2018	2017
Movement in the employee benefit obligations recognized		
Obligations at September 1	12.4	12.9
Currency translation	(0.1)	(0.4)
Current service expenses	0.3	0.3
Interest expenses	0.2	0.2
Actuarial gains/(losses)	0.4	(0.2)
Payments made	(0.6)	(0.4)
Employee benefit obligations recognized at August 31	12.6	12.4
Movement in the fair value of plan assets		
Fair value of plan assets at September 1	5.7	5.5
Currency translation	(0.1)	(0.4)
Expected return on plan assets	0.1	0.1
Actuarial gains/(losses)	0.2	0.4
Employer contributions	-	0.2
Benefits paid	(0.4)	(0.1)
Fair value of plan assets at August 31	5.5	5.7
Net benefit obligations at August 31	7.1	6.7
Net benefit obligations at August 31 Net employee benefit obligations	7.1	6.7
	<b>7.1</b> 6.7	<b>6.7</b> 7.4
Net employee benefit obligations		
<b>Net employee benefit obligations</b> Net obligations at September 1	6.7	7.4
<b>Net employee benefit obligations</b> Net obligations at September 1 Costs recognized in the income statement	6.7 0.4	7.4 0.4
<b>Net employee benefit obligations</b> Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income	6.7 0.4 0.2	7.4 0.4 (0.7)
Net employee benefit obligations Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income Employer contributions	6.7 0.4 0.2 (0.2)	7.4 0.4 (0.7) (0.4)
Net employee benefit obligations Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income Employer contributions Net employee benefit obligations at August 31	6.7 0.4 0.2 (0.2)	7.4 0.4 (0.7) (0.4)
Net employee benefit obligations Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income Employer contributions Net employee benefit obligations at August 31 Weighted average actuarial assumptions applied	6.7 0.4 0.2 (0.2) <b>7.1</b>	7.4 0.4 (0.7) (0.4) <b>6.7</b>
Net employee benefit obligations Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income Employer contributions Net employee benefit obligations at August 31 Weighted average actuarial assumptions applied Discount rate	6.7 0.4 0.2 (0.2) <b>7.1</b> 1.9%	7.4 0.4 (0.7) (0.4) <b>6.7</b> 2.0%
Net employee benefit obligations Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income Employer contributions Net employee benefit obligations at August 31 Weighted average actuarial assumptions applied Discount rate Future increase in salaries	6.7 0.4 0.2 (0.2) <b>7.1</b> 1.9% 0.3%	7.4 0.4 (0.7) (0.4) <b>6.7</b> 2.0% 2.9%
Net employee benefit obligations Net obligations at September 1 Costs recognized in the income statement Remeasurements recognized in other comprehensive income Employer contributions Net employee benefit obligations at August 31 Weighted average actuarial assumptions applied Discount rate Future increase in salaries Future increase in pensions	6.7 0.4 0.2 (0.2) <b>7.1</b> 1.9% 0.3%	7.4 0.4 (0.7) (0.4) <b>6.7</b> 2.0% 2.9%
Net employee benefit obligationsNet obligations at September 1Costs recognized in the income statementRemeasurements recognized in other comprehensive incomeEmployer contributionsNet employee benefit obligations at August 31Weighted average actuarial assumptions appliedDiscount rateFuture increase in salariesFuture increase in pensionsDistribution of plan assets to cover obligation	6.7 0.4 0.2 (0.2) <b>7.1</b> 1.9% 0.3% 1.6%	7.4 0.4 (0.7) (0.4) <b>6.7</b> 2.0% 2.9% 1.6%
Net employee benefit obligationsNet obligations at September 1Costs recognized in the income statementRemeasurements recognized in other comprehensive incomeEmployer contributionsNet employee benefit obligations at August 31Weighted average actuarial assumptions appliedDiscount rateFuture increase in salariesFuture increase in pensionsDistribution of plan assets to cover obligationShares	6.7 0.4 0.2 (0.2) <b>7.1</b> 1.9% 0.3% 1.6% 2%	7.4 0.4 (0.7) (0.4) <b>6.7</b> 2.0% 2.9% 1.6%
Net employee benefit obligationsNet obligations at September 1Costs recognized in the income statementRemeasurements recognized in other comprehensive incomeEmployer contributionsNet employee benefit obligations at August 31Weighted average actuarial assumptions appliedDiscount rateFuture increase in salariesFuture increase in pensionsDistribution of plan assets to cover obligationSharesBonds	6.7 0.4 0.2 (0.2) <b>7.1</b> 1.9% 0.3% 1.6% 2% 86%	7.4 0.4 (0.7) (0.4) <b>6.7</b> 2.0% 2.9% 1.6% 43% 47%

## **3.7 PROVISIONS**

#### ACCOUNTING POLICIES

Provisions are recognized when, as a consequence of an event occurring on or before the balance sheet date, the Group has a legal or constructive obligation and it is probable that economic benefits must be given up to settle the obligation. The obligation is measured on the basis of Management's best estimate of the discounted amount at which the obligation is expected to be met.

EUR million	2018	2017
Provisions at September 1	3.3	8.3
Additions for the year	0.6	0.8
Used during the year	(0.2)	(5.8)
Provisions at August 31	3.7	3.3

The provisions primarily concern US import tariff costs related to previous years and 2017/18.

# 3.8 COMMITMENTS AND CONTINGENT LIABILITIES

EUR million	2018	2017
Operating lease commitments		
Due within 1 year	8.5	5.9
Due between 1 and 5 years	16.2	16.8
Due after 5 years	0.6	0.7
Total	25.3	23.4
Lease commitments relate primarily to leaseholds, car and equipment rental.		
Expensed payments relating to operating leases	9.6	6.7
Individual assets directly pledged		
Land and buildings	90.8	85.8
Plant and machinery	113.4	81.6
Book value of pledged individual assets	204.2	167.4

The calculated liabilities are based on minimum lease payments.

#### Pending court and arbitration cases

Certain claims have been made against the Chr. Hansen Group. Management is of the opinion that the outcome of these disputes will not have a significant effect on the Group's financial position.

At August 31, 2018, Chr. Hansen was the opposing party in seven diacetyl-related lawsuits based on alleged personal injuries as a result of exposure to diacetyl vapors and the claimant in one diacetyl-related lawsuit. In addition, Chr. Hansen has initiated one case as claimant in relation to the diacetyl matter. Management does not believe that diacetyl lawsuits will have a material adverse effect on the Company's financial position or operating results.

#### Bank guarantee

At August 31, 2018, Chr. Hansen had a bank guarantee of EUR 2.8 million regarding a major supplier. The guarantee will expire at November 15, 2018.

#### Change of control

The loan facilities are subject to change-of-control clauses. Regarding change-of-control clauses in employment contracts, see note 2.3.

## **4.1 SHARE CAPITAL**

The Company's share capital has a nominal value of DKK 1,318,524,960 (equivalent to EUR 176.8 million), divided into shares of DKK 10 each. The share capital has been fully paid up.

The Company has not conducted a share buy-back program in the last three years. At August 31, 2018, the

Company held 196,718 treasury shares, corresponding to less than 1% of the total (287,336 treasury shares at August 31, 2017, less than 1% of total shares). All of the treasury shares were held to cover share option programs.

Number of shares outstanding:	2018	2017
Outstanding at September 1	131,565,160	131,002,580
Purchased during the year	(65,000)	(345,000)
Sold during the year	155,618	907,580
Outstanding at August 31	131,655,778	131,565,160

### **4.2 FINANCIAL ASSETS AND LIABILITIES**

#### ACCOUNTING POLICIES

Cash and cash equivalents comprise cash balances and unrestricted deposits with banks.

Financial liabilities, including mortgage loans and loans from credit institutions, are initially measured at fair value less transaction costs incurred. Subsequently, the loans are measured at amortized cost. Amortized cost is calculated as original cost less instalments plus/less the accumulated amortization of the difference between cost and nominal value. Losses and gains on loans are thus allocated over the term so that the effective interest rate is recognized in the income statement over the loan period. Financial liabilities are derecognized when settled. The portion of the debt maturing after one year is recognized as non-current debt and the remainder as current debt.

Other debts are measured at amortized cost. However, derivative financial instruments recognized under other payables are measured at fair value. See "Derivative financial instruments" below.

For accounting purposes, lease obligations are divided into finance and operating leases. Leases are classified as finance leases if they transfer substantially all the risks and rewards incident to ownership to the lessee. All other leases are classified as operating leases.

Operating lease payments are recognized in the income statement on a straight-line basis over the lease term.

### **4.2 FINANCIAL ASSETS AND LIABILITIES** (CONTINUED)

EUR	million	

ASSETS	Maturity < 1 year	Maturity > 1 year < 5 years	Maturity > 5 years	Total
Trade receivables	160.8	-	-	160.8
Other receivables	21.4	-	-	21.4
Cash and cash equivalents	69.1	-	-	69.1
Total	251.3	-	-	251.3
			Г	2017

	Maturity < 1 year	Maturity > 1 year < 5 years	∟ Maturity > 5 years	Total
Trade receivables	150.0	-	-	150.0
Other receivables	16.0	-	-	16.0
Cash and cash equivalents	73.0	-	-	73.0
Total	239.0	-	-	239.0

	Maturity	Maturity > 1 year	Maturity	
LIABILITIES	< 1 year	< 5 years	> 5 years	Total
Long-term borrowings*	-	653.0	9.0	662.0
Short-term borrowings*	103.2	-	-	103.2
Trade payables	118.6	-	-	118.6
Other payables	84.6	-	-	84.6
	306.4	653.0	9.0	968.4
Derivative financial instruments	-	0.2	-	0.2
Total	306.4	653.2	9.0	968.6

\* Including future interest payments.

				2017
	Maturity < 1 year	Maturity > 1 year < 5 years	Maturity > 5 years	Total
Long-term borrowings*	-	687.4	11.9	699.3
Short-term borrowings*	36.3	-	-	36.3
Trade payables	110.4	-	-	110.4
Other payables	85.7	-	-	85.7
	232.4	687.4	11.9	931.7
Derivative financial instruments	-	(1.3)	-	(1.3)
Total	232.4	686.1	11.9	930.4

\* Including future interest payments.

2018

2018

## **4.2 FINANCIAL ASSETS AND LIABILITIES** (CONTINUED)

EUR million	2018	2017
LONG-TERM BORROWINGS		
Senior bank borrowings	615.4	651.4
Mortgages	19.6	24.2
Total before amortization of financing expenses	635.0	675.6
Capitalized financing expenses	(2.6)	(3.8)
Total long-term borrowings	632.4	671.8
SHORT-TERM BORROWINGS		
Mortgages	4.6	4.8
Bank borrowings	90.8	24.8
Total	95.4	29.6

EUR million	2017				2018
CHANGE IN LIABILITIES ARISING FROM FINANCING ACTIVITIES	Debt as at August 31	Financing cash flow	Foreign exchange movements	Other	Debt as at August 31
Short-term borrowings	29.6	62.4	3.4	-	95.4
Long-term borrowings	675.6	(40.6)	-	-	635.0
Bank and other credit institutions	705.2	21.8	3.4	-	730.4

The Group's borrowings are denominated in EUR, USD and DKK.

The terms for the bank debt include a few covenants focusing on the Group's ability to generate sufficient cash flow. The financing of each Group company is monitored

and managed at Group level. In 2017/18, the covenants have been met, and estimates for the income statement, balance sheet and cash flow statement indicate that the covenants will be met by a comfortable margin in 2018/19.

### **4.2 FINANCIAL ASSETS AND LIABILITIES** (CONTINUED)

EUR million

Effective interest rateCarrying MaturityInterest rate amountMORTGAGESFloating rate*(0.02%)0-9 years18.5Cash flowFixed rate*0.88%0-7 years5.7Fair valueTotal mortgages24.2222Floating rate0-5 years122.0Cash flowFixed rate**0-5 years584.2Fair valueTotal bank borrowings584.25air value5	EUR million				2018
Floating rate*(0.02%)0-9 years18.5Cash flowFixed rate*0.88%0-7 years5.7Fair valueTotal mortgages24.224.224.2BANK BORROWINGS0-5 years122.0Cash flowFloating rate0-5 years584.2Fair valueFixed rate**0-5 years584.2Fair value			Maturity		
Fixed rate*0.88%0-7 years5.7Fair valueTotal mortgages24.2BANK BORROWINGSFloating rate0-5 years122.0Cash flowFixed rate**0-5 years584.2Fair value	MORTGAGES				
Total mortgages24.2BANK BORROWINGSSpars122.0Cash flowFloating rate0-5 years584.2Fair valueFixed rate**0-5 years584.2Fair value	Floating rate*	(0.02%)	0-9 years	18.5	Cash flow
BANK BORROWINGSFloating rate0-5 years122.0Cash flowFixed rate**0-5 years584.2Fair value	Fixed rate*	0.88%	0-7 years	5.7	Fair value
Floating rate0-5 years122.0Cash flowFixed rate**0-5 years584.2Fair value	Total mortgages			24.2	
Floating rate0-5 years122.0Cash flowFixed rate**0-5 years584.2Fair value					
Fixed rate**0-5 years584.2Fair value	BANK BORROWINGS				
	Floating rate		0-5 years	122.0	Cash flow
Total bank borrowings730.4	Fixed rate**		0-5 years	584.2	Fair value
	Total bank borrowings			730.4	

\* Interest rate excluding margin. \*\* Interest rate swaps have been used to fix the interest rate. These are denominated in EUR and USD and have an average interest rate of 1.09%.

The fair value of mortgages is EUR 25.5 million, whereas the fair value of bank borrowings does not differ significantly from the carrying amount. The fair value is calculated on level 2 in the fair value hierarchy using direct quotes.

2018

## **4.2 FINANCIAL ASSETS AND LIABILITIES**

(CONTINUED)

EUR million			2018
	Interest-	_	
CURRENCY OF THE PRINCIPAL	bearing debt	Floating rate	Fixed rate
EUR	422.8	35%	65%
USD	128.7	0%	100%
DKK	178.9	69%	31%
Total	730.4	37%	63%

				2017
	Effective		Carrying	Interest
	interest rate	Maturity	amount	rate risk
MORTGAGES				
Floating rate*	0.12%	1-10 years	20.9	Cash flow
Fixed rate*	0.84%	0-7 years	8.1	Fair value
Total mortgages			29.0	
BANK BORROWINGS				
Floating rate		0-5 years	316.6	Cash flow
Fixed rate**		0-3 years	359.6	Fair value
Total bank borrowings			676.2	

\* Interest rate excluding margin. \*\* Interest rate swaps have been used to fix the interest rate. These are denominated in EUR and USD and have an average interest rate of 0.68%.

The fair value of mortgages is EUR 30.5 million, whereas the fair value of bank borrowings does not differ significantly from the carrying amount. The fair value is calculated on level 2 in the fair value hierarchy using direct quotes.

EUR million		ſ	2017
	Interest-	_	
CURRENCY OF THE PRINCIPAL	bearing debt	Floating rate	Fixed rate
EUR	449.2	39%	61%
USD	126.8	33%	67%
DKK	129.2	94%	6%
Total	705.2	48%	52%

### 4.2 FINANCIAL ASSETS AND LIABILITIES (CONTINUED)

#### **FINANCIAL RISKS**

Being an international company, Chr. Hansen is exposed to currency and interest rate fluctuations.

Chr. Hansen's corporate Treasury department monitors and manages risks related to currency exposure and interest rate levels in accordance with the corporate Treasury Procedure approved by the Board of Directors. The procedure reflects how Chr. Hansen manages financial risks and contains rules defining, not only how financial instruments are used to hedge risks, but also an acceptable level of risk exposure and use of counterparties.

#### Funding and liquidity

Funding and adequate liquidity are fundamental factors in driving an expanding business, and management of both is an integral part of Chr. Hansen's continuous budget and forecasting process. To ensure focus on managing the risks related to funding and liquidity, Chr. Hansen's corporate Treasury department manages and monitors funding and liquidity for the entire Group and ensures the availability of the required liquidity through cash management and uncommitted as well as committed facilities.

#### Foreign exchange

To reduce exposure to exchange rate changes, Chr. Hansen trades primarily in EUR and USD. However, trading also takes place in other currencies. Currency exposure is mainly managed by having revenue and expenses in the same currency. Where this is insufficient to manage the risk, Chr. Hansen's corporate Treasury department performs hedging in accordance with the Treasury Procedure. See note 4.3 for further information.

#### Interest rates

Interest rate risk mainly relates to interest on debt. Debt is financed at the market rate plus a margin. The risk is limited by entering into interest hedging agreements in accordance with the Treasury Procedure (note 4.3).

#### Credit

Credit risks mainly relate to trade receivables and other receivables. The risk is limited due to Chr. Hansen's diverse customer base representing multiple industries and businesses on international markets where the Company cooperates with many large and medium-sized partners. When dealing with smaller businesses, the Company sells mainly through distributors, thus reducing the credit risk regarding these customers.

#### Counterparty risk

Counterparty risk for cash, deposits and financial instruments is handled by only engaging with financial institutions that have a satisfactory long-term credit rating. Chr. Hansen's core financial counterparties currently have long-term credit ratings of AA or A. Chr. Hansen's Treasury Procedure also defines a credit limit for each counterparty.

### 4.3 DERIVATIVE FINANCIAL INSTRUMENTS

#### ACCOUNTING POLICIES

Derivative financial instruments are initially recognized at fair value on the date the derivative contract is entered into and are subsequently remeasured at fair value. The fair values of derivative financial instruments are included in other receivables and other payables, respectively, and positive and negative values are offset only when the Group has the right and the intention to settle financial instruments net. Fair values of derivative financial instruments are computed on the basis of current market data and generally accepted valuation methods.

Certain derivative financial instruments are designated as one of the following:

- Hedges of the fair value of recognized assets or liabilities or a firm commitment (fair value hedges)
- Hedges associated with highly probable forecasted transactions (cash flow hedges)
- Hedges of a net investment in a foreign operation (net investment hedges)

Changes in the fair value of derivative financial instruments designated as and qualifying for recognition as a fair value hedge of recognized assets and liabilities are recognized in the income statement together with changes in the value of the hedged asset or liability with respect to the hedged portion.

The effective part of changes in the fair value of derivative financial instruments used for cash flow hedges is recognized in other comprehensive income and presented as a separate reserve in equity. The reserve is transferred to the income statement on realization of the hedged transactions. If a derivative financial instrument used to hedge expected future transactions expires, is sold or no longer qualifies for hedge accounting, any accumulated fair value reserve remains in equity until the hedged transaction is concluded. If the transaction is no longer expected to be concluded, any fair value reserve accumulated under equity is transferred to the income statement.

Changes in the fair value of derivative financial instruments used for net investment hedges that effectively hedge currency fluctuations in these entities are recognized directly in the Consolidated Financial Statements in a separate translation reserve in equity.

Realized gains and losses on derivative financial instruments are recognized in the income statement as financial income or financial expenses.

#### Derivative financial instruments in the Group

The Group is exposed to market risk, primarily risks relating to currency and interest rates, and uses financial instruments to hedge recognized and future transactions. The Group only enters into hedging agreements that relate to the underlying business.

#### Interest rate risk

Interest rate swaps are used for cash flow hedging where the underlying floating interest rates are hedged. At August 31, 2018, the outstanding interest rate swaps had the following market values:

# **4.3 DERIVATIVE FINANCIAL INSTRUMENTS** (CONTINUED)

EUR million

	Expiry	Contract amount	Gain/(loss)	Recognized in income statement	Recognized in fair value reserve
EUR 75 million interest rate swaps*	Aug. 2022	75.0	-	-	-
EUR 50 million interest rate swaps*	Aug. 2021	50.0	-	-	-
EUR 75 million interest rate swaps*	Aug. 2023	75.0	-	-	-
USD 100 million interest rate swaps	Nov. 2018	85.8	0.3	-	0.3
USD 25 million interest rate swaps	Aug. 2020	21.5	-	-	-
USD 25 million interest rate swaps	Aug. 2021	21.5	-	-	-
USD 50 million interest rate swaps**	Aug. 2023	42.9	-	-	-
Total		371.7	0.3	-	0.3

\* Interest rate swaps with forward start 2020.

\*\* Interest rate swaps with forward start Nov. 2018.

					2017
	Expiry	Contract amount	Gain/(loss)	Recognized in income statement	Recognized in fair value reserve
USD 100 million interest rate swaps	Nov. 2018	84.6	0.4	-	0.4
EUR 200 million interest rate swaps	Aug. 2018	200.0	(1.7)	-	(1.7)
Total		284.6	(1.3)	-	(1.3)

The fair value is calculated using a valuation model based primarily on observable market data, corresponding to level 2 in the fair value hierarchy. There is no currency risk related to the Group's swaps. The interest on the Group's financing facilities is based on a floating interest rate plus a margin.

2018

# **4.3 DERIVATIVE FINANCIAL INSTRUMENTS** (CONTINUED)

EUR million	2018	2017
Outstanding debt with fixed interest rate or hedged through interest rate swaps	63%	52%
Total debt, average maturity in years	3.7	4.4
Effect on total debt of a 1 percentage point increase in interest rates	(5.9)	(5.5)
Effect on interest rate swaps of a 1 percentage point increase in interest rates $^{\star}$	0.8	2.7
Net effect	(5.1)	(2.8)

\* Excluding interest rate swaps with forward start 2020.

An increase of 1%-point in the average interest rate on the Group's interest-bearing debt including swaps would reduce the Group's earnings before tax by EUR 5.1 million (EUR 2.8 million for 2016/17) over the next 12-month

period and have a negative effect on equity of EUR 0.2 million (positive effect of EUR 1.7 million in 2016/17).

## **4.3 DERIVATIVE FINANCIAL INSTRUMENTS** (CONTINUED)

Currency hedging of balance sheet position and future cash flows

EUR million					2018
NET OUTSTANDING FORWARD EXCHANGE CONTRACTS	Nominal principal	Gain/loss in income statement	Recognized in fair value reserve	Fair value of principal	Maximum maturity (months)
USD	8.6	-	-	8.6	1.0
AUD	6.5	0.1	-	6.4	3.0
SGD	0.9	-	-	0.9	2.0
CZK	2.1	-	-	2.1	2.0
DKK	(18.1)	-	-	(18.1)	
Total		0.1	-	(0.1)	
				Γ	2017

	Nominal principal	Gain/loss in income statement	Included in fair value reserve	Fair value of principal	Maximum maturity (months)
USD	17.8	0.1	-	17.7	2.0
AUD	5.3	-	-	5.3	3.0
SGD	1.9	-	-	1.9	2.0
CZK	2.1	-	-	2.1	1.0
GBP	1.6	-	-	1.6	2.0
DKK	(28.7)	-	-	(28.7)	
Total		0.1	-	(0.1)	

The fair value is calculated using a valuation model based primarily on observable market data, corresponding to level 2 in the fair value hierarchy. All contracts are used for fair value hedges.

The overall purpose of managing currency risk is to minimize the effect of short-term currency movements on

earnings and cash flow. The Group's main currencies are EUR, USD and USD-related currencies. Exposure is limited by assets, debt and expenses to a certain degree matching the geographic segmentation of sales. Investments in subsidiaries are not hedged. The fair value is calculated using direct quotes corresponding to level 1 in the fair value hierarchy.

#### FOREIGN EXCHANGE SENSITIVITY ANALYSIS

Net profit effect	2017/18	2016/17
Increase of 5%	1.2	1.2
Decrease of 5%	(1.2)	(1.2)

Financial instruments are defined as cash, trade receivables, trade payables, current and non-current loans and foreign exchange forwards.

### **5.1 SHARE-BASED PAYMENT**

#### ACCOUNTING POLICIES

The share programs are accounted for on an accrual basis over the service period. Share options issued are measured at fair value at the grant date multiplied by the probability of vesting. Matching shares are measured as the value of the maximum number of matching shares to be granted multiplied the probability of vesting. The probabilities are adjusted every year until vesting.

#### Share option programs

Long-term share option programs are granted to the Executive Board and certain key employees. Vesting is subject to fulfillment of certain key performance indicators and continued employment at the vesting date. Each option gives the right to purchase one existing share in Chr. Hansen Holding A/S.

No share option programs were granted in 2017/18 (EUR 0 million in 2016/17).

In 2017/18 no expenses were recognized relating to the long-term share option programs, including accelerations and reversals (EUR 0.2 million in 2016/17).

There were no outstanding exercisable share options at August 31, 2018.

Share option programs			Program 5	Program 6
Year allocated			2012/13	2013/14
Vesting conditions (KPIs)			EBIT and EPS	EBIT and EPS
Exercise price			DKK 228	DKK 219
Vesting			April 2016	Nov. 2016
Weighted average share price during exercise period			DKK 413	DKK 400
Average Black-Scholes value of options			EUR 3.8	EUR 2.9
Assumptions:				
Risk-free interest rate			0.23%	0.23%
Volatility			23.0%	19.9%
Dividend			1.5%	1.5%
Period			3-5 years	3-5 years
	Executive	Key	Former	
Number of share options	Board	employees	employees	Total
Outstanding at August 31, 2016	361,365	340,725	194,575	896,665
Exercised	(361,365)	(296,625)	(194,575)	(852,565)
Outstanding at August 31, 2017	-	44,100	-	44,100
Exercised	-	(44,100)	-	(44,100)
Outstanding at August 31, 2018	-	-	-	-

### 5.1 SHARE-BASED PAYMENT (CONTINUED)

#### Matching shares program

Long-term matching shares programs are granted to the Executive Board and certain key employees.

Under the program, the participants are required to acquire a number of existing shares in Chr. Hansen Holding A/S (investment shares) and retain ownership of such shares for a predefined holding period of three years. Upon expiration of the holding period and subject to fulfillment of certain predefined performance targets and continued employment at the vesting date, the participants will be entitled to receive up to 5.5 additional shares in Chr. Hansen Holding A/S (matching shares) per investment share for no consideration. The theoretical market value of the program in 2017/18 was EUR 3.7 million, based on fulfillment of all predefined performance targets (EUR 2.9 million in 2016/17). The fair value at grant was EUR 3.2 million, taking into consideration the assessed likelihood of meeting the no-market condition (EUR 2.4 million in 2016/17).

EUR 1.2 million was expensed in 2017/18 relating to the matching shares programs, including accelerations and reversals (EUR 1.4 million in 2016/17).

Matching shares programs	Program 1	Program 2	Program 3	Program 4
Year allocated	2014/15	2015/16	2016/17	2017/18
Vesting conditions (KPIs)	Org. growth, EBIT, TSR	Org. growth, EBIT, TSR	Org. growth, EBIT, TSR	Org. growth, EBIT, TSR
Vesting	Nov. 2017	Nov. 2018	Nov. 2019	Nov. 2020
Average fair market value of matching shares	EUR 26.4	EUR 36.8	EUR 44.2	EUR 54.6
Assumptions:				
Dividend	1.5%	1.5%	1.5%	1.5%
Period	3 years	3 years	3 years	3 years
TSR peer group likelihood	50.0%	50.0%	50.0%	50.0%

	Executive	Key	Former	
Number of matching shares	Board	employees	employees	Total
Outstanding at August 31, 2016	41,524	45,324	16,748	103,596
Allocated	22,012	29,680	2,393	54,085
Transferred	(19,728)	-	19,728	-
Outstanding at August 31, 2017	43,808	75,004	38,869	157,681
Allocated	31,592	27,143	-	58,735
Transferred	(1,292)	(12,304)	13,596	-
Forfeited	(21,533)	(14,284)	-	(35,817)
Exercised	(14,728)	(22,376)	(20,328)	(57,432)
Outstanding at August 31, 2018	37,847	53,183	32,137	123,167

## **5.1 SHARE-BASED PAYMENT** (CONTINUED)

#### Short-term restricted stock unit (RSU) programs

The short-term RSU programs are granted to the Executive Board and other key employees based on fulfillment of individual key performance indicators. The RSUs are granted as share options with an exercise price of DKK 1 and vest gradually over a three-year period. Subject to the person still being employed with Chr. Hansen, each share option may be exercised to purchase one existing share in Chr. Hansen Holding A/S. The value of RSUs allocated in 2017/18 (RSU program 9) was estimated to be EUR 2.8 million (EUR 2.9 million in 2016/17). The number of RSUs allocated, their value and underlying assumptions will be finally determined in November 2018.

EUR 2.9 million was expensed in 2017/18 relating to the short-term RSU programs (EUR 2.9 million in 2016/17). There were no outstanding exercisable RSUs at August 31, 2018.

RSU programs	Program 4	Program 5	Program 6	Program 7	Program 8	Program 9
Year allocated	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	Nov. 2014,	Nov. 2015,	Nov. 2016,	Nov. 2017,	Nov. 2018,	Nov. 2019,
Vesting	2015 & 2016	2016 & 2017	2017 & 2018	2018 & 2019	2019 & 2020	2020 & 2021
Weighted average share price						
during exercise period	EUR 32.9	EUR 56.3	EUR 52.1	EUR 69.8	Not vested	Not granted
Average Black-Scholes value of options Assumptions: Risk-free interest rate,	EUR 25.8	EUR 33.8	EUR 53.5	EUR 52.3	EUR 74.4	EUR 85.9
average	(0.22)%	(0.01)%	(0.35)%	(0.57)%	(0.57)%	
Volatility, average	23.0%	18.8%	24.2%	21.3%	18.6%	
Dividend	1.5%	1.5%	1.0%	1.0%	0.9%	
Period	2-5 years					

\* Estimated value.

	Executive	Key	Former	
RSUs (number)	Board	employees	employees	Total
Outstanding at August 31, 2016	22,192	132,892	5,143	160,227
Adjustment to allocation	342	6,576	-	6,918
Allocated	4,386	38,741	-	43,127
Transferred	(4,558)	(15,215)	19,773	-
Exercised	(7,754)	(41,965)	(5,296)	(55,015)
Forfeited	-	-	(10,170)	(10,170)
Outstanding at August 31, 2017	14,608	121,029	9,450	145,087
Adjustment to allocation	541	5,989	-	6,530
Allocated	4,796	32,777	2,010	39,583
Transferred	(5,393)	(8,716)	14,109	-
Exercised	(5,448)	(42,008)	(4,900)	(52,356)
Forfeited	-	-	(8,136)	(8,136)
Outstanding at August 31, 2018	9,104	109,071	12,533	130,708

## **5.2 NON-CASH ADJUSTMENTS**

EUR million	2017/18	2016/17
Depreciation, amortization and impairment losses	63.8	61.0
Gains and losses from disposal of assets	(0.4)	(1.6)
Share-based payment	1.5	2.5
Change regarding employee benefits	(0.1)	0.3
Change in provisions	1.1	(6.6)
Total	65.9	55.6

## **5.3 ACQUISITION OF ENTITIES**

#### ACCOUNTING POLICIES

On acquisition of subsidiaries, joint ventures and associates, the acquisition method is applied, and acquired assets, liabilities and contingent liabilities are measured on initial recognition at fair value at the time control is deemed to exist. Identifiable intangible assets are recognized if they can be separated and the fair value can be reliably measured. Deferred tax on revaluations is recognized.

Any positive differences between cost and fair value of the assets, liabilities and contingent liabilities acquired on acquisition of subsidiaries are recognized as goodwill under intangible assets. The cost is stated at the fair value of shares, debt instruments, and cash and cash equivalents. Goodwill is not amortized but is tested annually for impairment. Negative balances (negative goodwill) are recognized in the income statement at the date of acquisition. Positive differences on acquisition of joint ventures and associates are recognized in the balance sheet under investments in joint ventures and associates.

If the initial accounting for a business combination can be determined only provisionally by the end of the period in which the combination is effected, adjustments made to the provisional fair value of acquired assets, liabilities and contingent liabilities or cost of the acquisition within 12 months of the acquisition date are reflected in the initial goodwill. The adjustment is calculated as if it had been recognized at the acquisition date, and comparative figures are restated.

Changes in estimates of the cost of the acquisition that are contingent on future events are recognized in the income statement.

Acquired entities are recognized in the Consolidated Financial Statements from the time of the acquisition.

### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

For acquisitions of entities, the assets, liabilities and contingent liabilities of the acquiree are recognized using the acquisition method. The most significant assets acquired generally comprise goodwill, trademarks, non-current assets, receivables and inventories.

No active market exists for the majority of the acquired assets and liabilities, in particular in respect of acquired intangible assets. Accordingly, Management makes estimates of the fair value of acquired assets, liabilities and contingent liabilities. Depending on the nature of the item, the determined fair value of an item may be associated with uncertainty and possibly adjusted subsequently.

## **5.3 ACQUISITION OF ENTITIES** (CONTINUED)

There were no acquisitions in the financial year 2017/18.

In the financial year 2016/17 (November 10, 2016), Chr. Hansen acquired full ownership of the LGG<sup>®</sup> strain, including trademarks and related business, from Valio, Finland. The acquired business includes the LGG<sup>®</sup> trademarks and related royalties, a collection of around 3,200 strains and a small production site in Tikkurila, Finland, which currently produces the LGG<sup>®</sup> strain and a number of specialty strains for cheese, etc. The purchase consideration was paid in cash. As announced, it has been decided to close down the acquired factory and move the production to other production facilities in Denmark and France.

Details of the purchase consideration, net assets acquired and goodwill are as follows:

EUR million	2016/17
PURCHASE CONSIDERATION	
Cash paid	73.0
Net assets acquired	25.6
Goodwill from acquisition	47.4

Goodwill represents synergies from innovation, sales and technology.

In accordance with IFRS 3, the acquired assets are recognized at fair value in the opening balance based on market participants' use of assets, even if the acquirer does not intend to use them or does not intend to use them in a way that is similar to what would be expected. The fair value of the assets acquired is estimated using generally accepted valuation methods, e.g. the relief-from-royalty method for trademarks and MEEM (Multi-period Excess Earnings Method) and the allowed-earnings models for technology and customer relationships.

EUR million	2016/17
FAIR VALUE OF NET ASSETS ACQUIRED	
Trademarks	5.0
Technology (patents and other rights)	16.9
Customer relations	2.4
Property, plant and equipment	2.0
Inventories	0.6
Other receivables and payables, net	(1.3)
Cash	-
Net identifiable assets acquired	25.6

The costs totaling EUR 1.4 million relating to the acquisition and integration of LGG® are recognized as special items.

The acquisition of LGG<sup>®</sup> contributed EUR 7.3 million to revenue and EUR (0.3) million to profit, including special items for the year in 2016/17. The business was acquired on November 10, 2016, and a full-year contribution from LGG<sup>®</sup> would have resulted in EUR 1,064.0 million in revenue and EUR 223.9 million in profit for the Group in 2016/17.

## **5.4 RELATED PARTIES**

Related parties are defined as parties with control or significant influence, including Group companies.

At August 31, 2018, Novo Holdings A/S, Denmark, held 25.66% of the share capital in Chr. Hansen Holding A/S (significant influence).

In addition, Capital Group Companies Inc., US, held 9.99%, APG Asset Management N.V., Netherlands, held 5.15% and WCM Investment Management, US, held 5.00%. Other related parties include members of the Group's Executive Board and Board of Directors together with their immediate families.

All agreements relating to transactions with these parties are based on market price (arm's length). The majority of the agreements are renegotiated regularly. The Group had the following transactions with related parties:

EUR million	Purchases of goods,	2017/18 Financial
TRANSACTIONS WITH RELATED PARTIES	materials and services	liabilities
Novo Holdings A/S Group	9.8	0.8
		2016/17
	Purchases of goods, materials and services	Financial liabilities
Novo Holdings A/S Group	4.1	0.6

Fees and other consideration to the Executive Board and Board of Directors are specified in note 2.3. Share-based payment is specified in note 5.1.

## 5.5 EVENTS AFTER THE BALANCE SHEET DATE

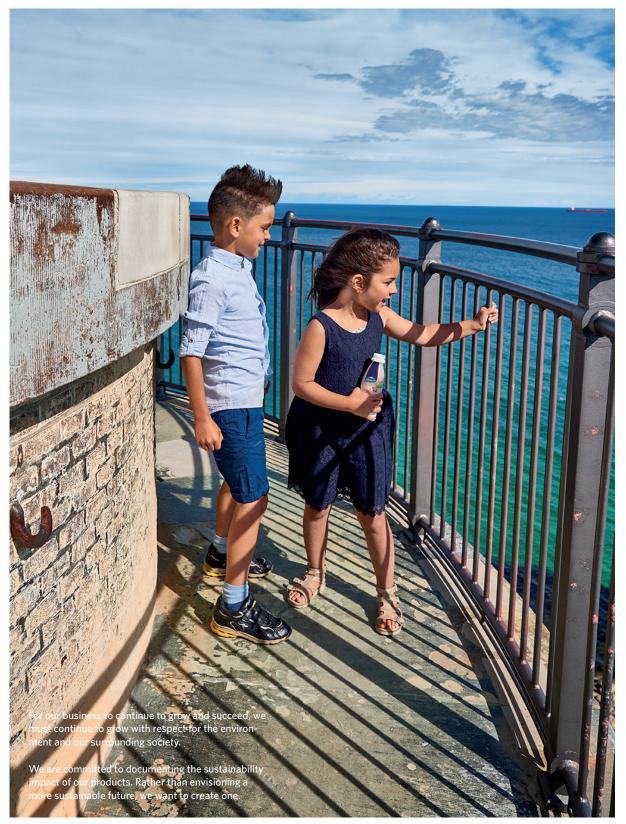
No events of importance to the Annual Report have occurred after the balance sheet date.

## 5.6 LIST OF GROUP COMPANIES AT AUGUST 31, 2018

Entity	Country	Currency	Nominal capital (000)	Chr. Hansen share in %	Production	Sales	Other
Chr. Hansen Argentina S.A.I.C.	Argentina	ARS	648	98		Х	
Paprika S.A.	Argentina	ARS	1,300	70			х
Chr. Hansen Pty Ltd	Australia	AUD	1,004	100		Х	
Hale-Bopp Australia Pty Ltd	Australia	AUD	30,686	100			х
Chr. Hansen Ind. e Com. Ltda.	Brazil	BRL	17,499	100	Х	Х	
Chr. Hansen Ltd.	Canada	CAD	24	100		Х	
Chr. Hansen Chile SpA	Chile	CLP	4,680	100		Х	
Chr. Hansen (Tianjin) Food Ingredients Co. Ltd.	China	CNY	8,000	100	Х	Х	
Chr. Hansen (Beijing) Trading Co., Ltd.	China	CNY	5,000	100		Х	
Chr. Hansen Colombia S.A.S.	Colombia	COP	3,856,597	100		Х	
Chr. Hansen Czech Republic s.r.o.	Czech Republic	CZK	470	100	Х	Х	
Chr. Hansen A/S	Denmark	DKK	194,101	100	Х	Х	х
Chr. Hansen Natural Colors A/S	Denmark	DKK	10,000	100	Х	Х	
Chr. Hansen Properties A/S	Denmark	DKK	500	100			х
Chr. Hansen Finland Oy	Finland	EUR	3	100	Х	Х	
Chr. Hansen France SAS	France	EUR	11,100	100	Х	Х	
Chr. Hansen GmbH	Germany	EUR	1,000	100	Х	Х	
Halley GmbH	Germany	EUR	25	100			х
Hansen Hellas ABEE	Greece	EUR	1,057	100		Х	
Chr. Hansen India Pvt. Ltd	India	INR	24,992	99.6		Х	
Chr. Hansen Ireland Ltd.	Ireland	EUR	1	100		Х	
Chr. Hansen Italia S.p.A.	Italy	EUR	500	100	Х	Х	
Chr. Hansen Japan Co., Ltd.	Japan	JPY	10,000	100		Х	
Chr. Hansen Malaysia SDN. BHD.	Malaysia	MYR	1,000	100		Х	
Chr. Hansen de Mexico S.A. de C.V.	Mexico	MXN	25,878	100		Х	
Chr. Hansen S.A.	Peru	PEN	1,842	100	Х	Х	
Chr. Hansen Poland Sp. z o.o.	Poland	PLN	8,950	100		Х	
Chr. Hansen SRL	Romania	RON	4	100		Х	
Chr. Hansen LLC	Russia	RUB	10,972	100		Х	
Chr. Hansen Singapore Pte Ltd.	Singapore	SGD	1,000	100			х
Chr. Hansen, S.L.	Spain	EUR	8,926	100		Х	
Chr. Hansen Sweden AB	Sweden	SEK	1,000	100		Х	
Chr. Hansen Gida Sanayi ve Ticaret A.S.	Turkey	TRY	140	100		Х	
Chr. Hansen Ukraine LLC	Ukraine	UAH	32	100		Х	
Chr. Hansen Middle East FZ-LLC	UAE	AED	500	100		Х	
Chr. Hansen (UK) Limited	UK	GBP	250	100		Х	
Chr. Hansen Inc.	US	USD	-	100	Х	Х	

## ANNUAL REPORT 2017/18 FINANCIAL STATEMENTS PARENT COMPANY

## CREATING A SUSTAINABLE FUTURE



# FINANCIAL STATEMENTS – PARENT CONTENTS

INCOME STATEMENT STATEMENT OF COMPREHENSIVE INCOME BALANCE SHEET STATEMENT OF CHANGES IN EQUITY CASH FLOW STATEMENT

#### **BASIS OF PREPARATION**

1.1 General accounting policies1.2 Summary of key accounting estimates

#### **RESULTS FOR THE YEAR**

2.1 Depreciation, amortization and impairment losses2.2 Staff expenses2.3 Fees to auditors2.4 Special items2.5 Financial income2.6 Financial expenses2.7 Income taxes and deferred tax

#### **OPERATING ASSETS AND LIABILITIES**

3.1 Intangible assets3.2 Investments in Group companies3.3 Receivables from Group companies3.4 Commitments and contingent liabilities

#### CAPITAL STRUCTURE AND FINANCING

4.1 Share capital4.2 Derivative financial instruments4.3 Credit, currency and interest rate risk

#### OTHER DISCLOSURES

5.1 Share-based payment 5.2 Non-cash adjustments

- 5.3 Related parties
- 5.4 Events after the balance sheet date

## FINANCIAL STATEMENTS - PARENT **INCOME STATEMENT** SEPTEMBER 1 – AUGUST 31

EUR million	Note	2017/18	2016/17
Revenue		-	-
Cost of sales		-	-
Gross profit		-	-
Sales and marketing expenses	2.1	(5.0)	(3.2)
Administrative expenses	2.1 - 2.2 - 2.3	(16.2)	(15.3)
Other operating income		22.4	19.5
Other operating expenses		(0.2)	(0.1)
Operating profit		1.0	0.9
		125.0	100 7
Dividends received from Group companies		135.8	138.7
Financial income	2.4	12.3	17.4
Financial expenses	2.5	(18.0)	(21.3)
Profit before tax		131.1	135.7
Income taxes	2.6	(0.3)	(1.1)
Profit for the year	2.0	130.8	134.6

## FINANCIAL STATEMENTS - PARENT STATEMENT OF COMPREHENSIVE INCOME

SEPTEMBER 1 - AUGUST 31

EUR million	Note	2017/18	2016/17
Profit for the year		130.8	134.6
Items that will be reclassified subsequently to the income statement when specific conditions are met:			
Currency translation to presentation currency		(1.0)	1.3
Deferred gains/(losses) on cash flow hedges arising during the year		0.4	(0.4)
Gains/(losses) on cash flow hedges expiring during the year		1.1	1.7
Tax related to cash flow hedges		(0.3)	0.5
Other comprehensive income for the year		0.2	3.1
Total comprehensive income for the year		131.0	137.7



EUR million	Note	2018	2017
ASSETS			
Non-current assets			
Intangible assets			
Software	3.1	0.8	0.5
Intangible assets in progress	3.1	0.1	-
Total intangible assets		0.9	0.5
Fixed asset investments			
Investments in Group companies	3.2	946.6	948.9
Receivables from Group companies	3.3	190.8	169.2
Total fixed asset investments		1,137.4	1,118.1
Other non-current assets			
Deferred tax	2.6	2.8	2.7
Total other non-current assets		2.8	2.7
Total non-current assets		1,141.1	1,121.3
Current assets			
Receivables			
Receivables from Group companies		70.5	82.8
Tax receivables		47.4	45.6
Other receivables		1.0	0.7
Prepayments		0.3	0.1
Total receivables		119.2	129.2
Cash and cash equivalents		28.7	4.4
Total current assets		147.9	133.6
Total assets		1,289.0	1,254.9



EUR million	Note	2018	2017
EQUITY AND LIABILITIES			
Equity			
Share capital	4.1	176.8	177.3
Reserves		318.2	399.8
Total equity		495.0	577.1
Liabilities			
Non-current liabilities			
Borrowings		612.9	647.7
Total non-current liabilities		612.9	647.7
Current liabilities			
Borrowings		88.1	22.4
Trade payables		0.5	0.8
Payables to Group companies		86.5	-
Other payables		6.0	6.9
Total current liabilities		181.1	30.1
Total liabilities		794.0	677.8
Total equity and liabilities		1,289.0	1,254.9
Commitments and contingent liabilities	3.4		
Derivative financial instruments	4.2		
Credit, currency and interest rate risk	4.3		
Related parties	5.3		
Events after the balance sheet date	5.4		

## FINANCIAL STATEMENTS - PARENT **STATEMENT OF CHANGES IN EQUITY** SEPTEMBER 1 - AUGUST 31

EUR million					2017/18
	Note	Share capital	Cash flow hedges	Retained earnings	Total
Equity at September 1, 2017		177.3	(1.9)	401.7	577.1
Total comprehensive income for the year, see statement of comprehensive income		(0.5)	1.2	130.3	131.0
Transactions with owners:					
Purchase of treasury shares		-	-	(4.7)	(4.7)
Exercised share options		-	-	1.1	1.1
Share-based payment	5.1	-	-	5.5	5.5
Tax related to share-based payment		-	-	1.9	1.9
Dividend		-	-	(216.9)	(216.9)
Equity at August 31, 2018		176.8	(0.7)	318.9	495.0

During the year, an ordinary dividend for the financial year 2016/17 of EUR 0.85 (DKK 6.33) per share, corresponding to EUR 112 million, and an extraordinary dividend of EUR 0.79 (DKK 5.94) per share, corresponding to EUR 105 million, were paid. A dividend of EUR 0.87 (DKK 6.47), corresponding to EUR 114 million in total, is proposed for 2017/18.

Equity at September 1, 2016	Note	Share capital 177.2	Cash flow hedges (3.7)	Retained earnings 447.8	2016/17 Total <b>621.3</b>
Total comprehensive income for the year, see statement of comprehensive income <b>Transactions with owners:</b>		0.1	1.8	135.8	137.7
Purchase of treasury shares		-	-	(20.1)	(20.1)
Exercised share options		-	-	23.5	23.5
Share-based payment	5.1	-	-	2.5	2.5
Tax related to share-based payment		-	-	4.4	4.4
Dividend		-	-	(192.2)	(192.2)
Equity at August 31, 2017		177.3	(1.9)	401.7	577.1

During the year, an ordinary dividend for the financial year 2015/16 of EUR 0.70 (DKK 5.23) per share, corresponding to EUR 92 million, and an extraordinary dividend of EUR 0.76 (DKK 5.64) per share, corresponding to EUR 100 million, were paid.

## FINANCIAL STATEMENTS - PARENT **CASH FLOW STATEMENT** SEPTEMBER 1 - AUGUST 31

Note 2017/18 2016/17 EUR million **Operating profit** 1.0 Non-cash adjustments 5.2 1.8 Change in working capital 137.1 30.6 Interest payments received 6.3 Interest payments made (11.1)138.7 Dividends received 135.8 (27.1) Taxes paid (33.6) Cash flow from operating activities 237.3 144.4 Investments in intangible assets (0.7)Investments in Group companies 3.2 Cash flow used for investing activities (0.7) 140.2 Free cash flow 236.6 Repayment to Group companies (20.0) Borrowings 60.5 208.0 Repayment of long-term loans (163.3) (32.3) Exercise of options 1.1 24.6 Purchase of treasury shares, net (4.7)(20.1) Dividends paid (216.9) (192.2) Cash flow used for financing activities (212.3) (143.2) Net cash flow for the year 24.3 Cash and cash equivalents at September 1 4.4 Net cash flow for the year 24.3 Cash and cash equivalents at August 31 28.7

0.9

2.7

6.7 (8.1)

(0.1)

(4.1)

(4.2)

(0.2)

(3.0)

7.4

(3.0)

4.4

## 1.1 GENERAL ACCOUNTING POLICIES

#### ACCOUNTING POLICIES

The Financial Statements of Chr. Hansen Holding A/S as Parent Company have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and additional further requirements in the Danish Financial Statement Act.

The accounting policies for the Company are the same as for the Chr. Hansen Group, see notes to the Consolidated Financial Statements, with the exception of the following.

#### Other income and expenses

Other income and expenses comprise income that is of a secondary nature to the activities of the Company, including income from management and service agreements.

#### Investments in Group companies

Accounting policies for investments in Group companies and related transactions are presented in note 3.2.

## 1.2 SUMMARY OF KEY ACCOUNTING ESTIMATES

#### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

In preparing the Financial Statements for Chr. Hansen Holding A/S, Management makes various accounting estimates and assumptions that form the basis of recognition and measurement of the Parent Company's assets and liabilities.

The most significant accounting estimates and judgments for the Chr. Hansen Group are presented in the notes to the Consolidated Financial Statements.

Other accounting estimates and judgments considered key for the Company are:

· Investments in Group companies (note 3.2)

#### **Estimation uncertainty**

Determining the carrying amount of some assets and liabilities requires judgments, estimates and assumptions to be made concerning future events. The judgments, estimates and assumptions made are based on historical experience and other factors that Management assesses to be reliable, but which are inherently associated with uncertainty and unpredictability. These assumptions may prove incomplete or incorrect, and unexpected events or circumstances may arise.

Assumptions about the future and estimation uncertainty at the balance sheet date are described in the notes where there is a significant risk of changes that could result in material adjustments to the carrying amount of assets or liabilities within the next financial year.

#### Judgments in applying accounting policies

In applying the Group's accounting policies, Management makes judgments that may significantly influence the amounts recognized in the Financial Statements.

## 2.1 DEPRECIATION, AMORTIZATION AND IMPAIRMENT LOSSES

EUR million	2017/18	2016/17
AMORTIZATION		
Intangible assets		
Administrative expenses	(0.3)	(0.2)
Total depreciation, amortization and impairment losses	(0.3)	(0.2)

## **2.2 STAFF EXPENSES**

EUR million	2017/18	2016/17
Wages and salaries, etc.	(13.7)	(12.7)
Pension expenses - defined contribution plans	(0.8)	(0.6)
Social security, etc.	-	(0.1)
Salaries and other remuneration of the Executive Board and		
Board of Directors of Chr. Hansen Holding A/S	(4.3)	(4.2)
Total	(18.8)	(17.6)
Average number of employees	56	50
Remuneration of the Executive Board and Board of Directors:		
Executive Board		
Salaries, etc.	(2.3)	(2.1)
Pension - defined contribution plans	(0.3)	(0.3)
Share-based payment	(0.6)	(0.8)
Total	(3.2)	(3.2)
Board of Directors		(1.0)
Fees	(1.1)	(1.0)

## **2.3 FEES TO AUDITORS**

EUR million	2017/18	2016/17
PricewaterhouseCoopers		
Statutory audit	(0.1)	(0.1)
Other services	(0.1)	-
Total	(0.2)	(0.1)

## **2.4 FINANCIAL INCOME**

EUR million	2017/18	2016/17
Interest from Group companies	6.3	6.8
Foreign exchange gains on derivatives	1.1	1.9
Foreign exchange gains	4.9	8.7
Total	12.3	17.4

Effective interest income amounted to EUR 0.0 million (EUR 0.0 million in 2016/17).

## **2.5 FINANCIAL EXPENSES**

EUR million	2017/18	2016/17
Interest paid to Group companies	(0.2)	(0.4)
Foreign exchange losses on derivatives	-	(1.2)
Interest expenses	(7.6)	(7.0)
Foreign exchange losses	(6.4)	(8.9)
Losses on derivatives transferred from other comprehensive income	-	(1.7)
Other financial expenses including amortized costs	(3.8)	(2.1)
Total	(18.0)	(21.3)

Effective interest expenses amounted to EUR 11.6 million (EUR 9.5 million in 2016/17).

## 2.6 INCOME TAXES AND DEFERRED TAX

EUR million	2017/18	2016/17
Current tax on profit for the year	0.3	(1.1)
Change in deferred tax concerning profit for the year	(0.3)	0.5
Tax on profit for the year	-	(0.6)
Adjustments concerning previous years	(0.3)	(0.5)
Tax in the income statement	(0.3)	(1.1)
Tax on other comprehensive income	(0.3)	0.5

		2017/18	Γ	2016/17
Reconciliation of tax rate			_	
Danish tax rate	22.0%	(28.8)	22.0%	(29.9)
Non-taxable income and non-deductible expenses	(22.0)%	28.9	(21.8)%	29.5
Adjustments concerning previous years	0.2%	(0.3)	0.4%	(0.5)
Other taxes	0.0%	(0.1)	0.2%	(0.2)
Effective tax rate	0.0%		0.8%	
Tax on profit for the year		(0.3)		(1.1)

EUR million	2017/18	2016/17
Deferred tax at September 1	2.7	2.3
Currency adjustments	0.1	-
Change in deferred tax - recognized in the income statement	(0.2)	0.3
Change in deferred tax - recognized through equity	0.2	-
Adjustment concerning previous years	-	0.1
Deferred tax asset at August 31	2.8	2.7
Specification of deferred tax		
Intangible assets	(0.2)	(0.1)
Current assets	0.2	0.3
Liabilities	2.8	2.5
Total deferred tax at August 31	2.8	2.7

## **3.1 INTANGIBLE ASSETS**

EUR million	Software	Intangible assets in progress	2018 Total
Cost at September 1	2.5	-	2.5
Additions for the year	0.6	0.1	0.7
Transferred	-	-	-
Cost at August 31	3.1	0.1	3.2
Amortization at September 1	(2.0)	-	(2.0)
Amortization for the year	(0.3)	-	(0.3)
Amortization at August 31	(2.3)	-	(2.3)
Carrying amount at August 31	0.8	0.1	0.9
		[	2017

Cost at September 1 Additions for the year Transferred	2.1 0.1 0.3	0.3	2.4 0.1 0
Cost at August 31	2.5	-	2.5
Amortization at September 1	(1.8)	-	(1.8)
Amortization for the year	(0.2)	-	(0.2)
Amortization at August 31	(2.0)	-	(2.0)
Carrying amount at August 31	0.5	-	0.5

### Software

Software comprises expenses for acquiring software licenses and expenses related to internal development of software within the Group. The value of the recognized software has been compared to the expected value in use. No indications of impairment have been identified.

## 3.2 INVESTMENTS IN GROUP COMPANIES

#### ACCOUNTING POLICIES

#### Dividends from Group companies

Dividends from Group companies are recognized as income in the income statement of the Parent Company in the financial year in which the dividend is declared. If the carrying amount of an investment in a subsidiary exceeds the carrying amount of the net assets in the subsidiary's financial statements, or the dividend exceeds the total comprehensive income of the subsidiary in the period in which the dividend is declared, the carrying amount of the subsidiary is tested for impairment.

#### Investments in Group companies

Investments in Group companies are measured at cost. If the cost exceeds the recoverable amount, it is written down.

### KEY ACCOUNTING ESTIMATES AND JUDGMENTS

Management performs an annual test for indications of impairment of investments in Group companies. Impairment tests are conducted in the same way as for goodwill in the Chr. Hansen Group, see note 3.1 to the Consolidated Financial Statements.

There were no indications of impairment of the investments in 2017/18 or 2016/17.

EUR million	2018	2017
Cost at September 1	948.9	944.5
Currency translation	(2.3)	0.3
Additions for the year	-	4.1
Cost at August 31	946.6	948.9

See note 5.6 to the Consolidated Financial Statements for a list of Group companies.

The additions in 2016/17 related to a capital contribution in Chr. Hansen Finland Oy to finance the acquisition and integration of LGG $^{\circ}$ .

## 3.3 RECEIVABLES FROM GROUP COMPANIES

EUR million	2018	2017
Due between 1 and 5 years		
Loans to Group companies	190.8	169.2
Total	190.8	169.2

## 3.4 COMMITMENTS AND CONTINGENT LIABILITIES

#### **Operating leases**

Lease commitments primarily related to car and equipment rental: EUR 0.2 million is due within 1 year and EUR 0.3 million is due between 1 and 5 years (EUR 0.2 million due within 1 year and EUR 0.2 million due between 1 and 5 years in 2016/17). Payments of EUR 0.3 million were expensed in 2017/18 (EUR 0.3 million in 2016/17).

#### Other guarantees and liabilities

Chr. Hansen Holding A/S is jointly and severally liable for Chr. Hansen A/S's drawings on the Group's credit facility. Chr. Hansen A/S had not drawn on the facility at August 31, 2018 or at August 31, 2017.

#### Pending court and arbitration cases

Certain claims have been made against Chr. Hansen Holding A/S. Management is of the opinion that the outcome of these disputes will not have a significant impact on the Company's financial position.

#### Change of control

The loan facilities are subject to change-of-control clauses. Regarding change-of-control clauses in Management contracts, please see note 2.3 to the Consolidated Financial Statements.

## **4.1 SHARE CAPITAL**

The Company's share capital has a nominal value of DKK 1,318,524,960 (equivalent to EUR 176.8 million), divided into shares of DKK 10 each. The share capital has been fully paid up.

The Company has not conducted a share buy-back program in the last three years.

At August 31, 2018, the Company held 196,718 treasury shares, corresponding to less than 1% of the total (287,336 treasury shares at August 31, 2017, less than 1% of total shares). All of the treasury shares were held to cover share option programs.

Number of shares outstanding:	2018	2017
Outstanding at September 1	131,565,160	131,002,580
Purchase of treasury shares	(65,000)	(345,000)
Sold during the year	155,618	907,580
Outstanding at August 31	131,655,778	131,565,160

## **4.2 DERIVATIVE FINANCIAL INSTRUMENTS**

Chr. Hansen Holding A/S is exposed to market risks, primarily risks relating to currency and interest, and uses financial instruments to hedge recognized and future transactions. Chr. Hansen Holding A/S only enters into hedging agreements that relate to the underlying business.

#### Interest rate risk

Interest rate swaps are used for cash flow hedging by hedging the underlying floating interest rates. At August 31, 2018, the outstanding interest rate swaps had the following market value:

EUR million

Market value of open interest rate swaps	Expiry	Contract amount	Gain/(loss)	Recognized in income statement	Recognized in fair value reserve
EUR 75 million interest rate swaps $^{\star}$	Aug. 2022	75.0	-	-	-
EUR 50 million interest rate swaps*	Aug. 2021	50.0	-	-	-
EUR 75 million interest rate swaps*	Aug. 2023	75.0	-	-	-
USD 100 million interest rate swaps	Nov. 2018	85.8	0.3	-	0.3
USD 25 million interest rate swaps	Aug. 2020	21.5	-	-	-
USD 25 million interest rate swaps	Aug. 2021	21.5	-	-	-
USD 50 million interest rate swaps**	Aug. 2023	42.9	-	-	-
Total		371.7	0.3	-	0.3

\* Interest rate swaps with forward start 2020 \*\* Interest rate swaps with forward start Nov. 2018

2017 Recognized in Recognized in Contract income fair value amount Gain/(loss) statement reserve Expiry Nov. 2018 84.6 0.4 USD 100 million interest rate swaps 0.4 200.0 EUR 200 million interest rate swaps Aug. 2018 (1.7)(1.7)\_

284.6

Total

The fair value is calculated using a valuation model based primarily on observable market data, corresponding to level 2 in the fair value hierarchy. There is no currency risk related to the Company's swaps.

The interest on the Company's financing facilities is based on a floating interest rate plus a margin. At August 31, 2018, 64% of outstanding debt was hedged through interest rate swaps or loans at fixed interest rates (52% at August 31, 2017). The

total debt had an average maturity of 3.7 years at August 31, 2018 (4.3 years at August 31, 2017). An increase of 1%-point in the average interest rate on the Company's interest-bearing debt excluding swaps would reduce the Company's earnings before tax by EUR 5.8 million over the next 12-month period (EUR 5.3 million in the financial year 2016/17). The effect of a 1%-point interest rate change on the swaps entered into would be EUR 4.9 million (EUR 2.6 million in 2016/17).

(1.3)

(1.3)

\_

2018

## **4.2 DERIVATIVE FINANCIAL INSTRUMENTS** (CONTINUED)

EUR million	2018	2017
Financial assets		
Receivables from Group companies	70.5	82.8
Tax receivables	47.4	45.6
Other receivables and prepayments	1.3	0.8
Cash and cash equivalents	28.7	4.4
Total financial assets	147.9	133.6
Financial liabilities		
Borrowings	701.0	670.1
Trade payables	0.5	0.8
Other financial liabilities	92.5	6.9
Financial liabilities	794.0	677.8
Classification of financial assets		
Loans and receivables	147.9	133.6
Total	147.9	133.6
Classification of financial liabilities		
Financial liabilities measured at amortized cost	794.0	677.8
Total	794.0	677.8
EUR million	2018	2017
Maturity analysis for financial liabilities		
Borrowings		
0-1 year	88.1	22.4
1-5 years	612.9	647.7
Trade payables		
0-1 year	0.5	0.8
Other financial liabilities		
0-1 year	92.5	6.9
Total	794.0	677.8
Average interest rate	1.0%	0.9%
Borrowings have been reduced by amortization and financing expenses.		
Amortization expenses offset under non-current debt	2.6	3.7

## 4.3 CREDIT, CURRENCY AND INTEREST RATE RISK

### Credit risk

Credit risk for cash and cash equivalents and financial instruments is managed by working only with financial institutions that have a satisfactory credit rating. In general, the risk is considered limited.

#### Currency risk

The overall purpose of managing currency risk is to minimize the impact of short-term currency movements on earnings and cash flow. The main currency risk for the Company is loans denominated in USD.

It is the policy of the Company not to hedge investments in subsidiaries.

#### Interest risk

The interest on the Company's multicurrency loan facility is based on a floating interest rate plus a margin. Interest rate swaps are utilized to reduce the risk relating to the income statement 64% of the outstanding debt was hedged through interest rate swaps at August 31, 2018 (52% at August 31, 2017).

#### Cash flow risk

Chr. Hansen Holding A/S's interest-bearing debt amounted to EUR 703.5 million at August 31, 2018 (EUR 673.8 million at August 31, 2017).

## **5.1 SHARE-BASED PAYMENT**

#### Share option programs

Long-term share option programs are granted to the Executive Board and certain key employees. Vesting is subject to fulfillment of certain key performance indicators and continued employment at the vesting date. Each option gives the right to purchase one existing share in Chr. Hansen Holding A/S.

No share option programs were granted in 2017/18 (EUR 0 million in 2016/17).

In 2017/18 no expenses has been recognized relating to the long-term share option programs, including accelerations and reversals (EUR 0.1 million in 2016/17).

There were no outstanding exercisable share options at August 31, 2018.

Share option programs	Program 5	Program 6
Year allocated	2012/13	2013/14
Vesting conditions (KPIs)	EBIT and EPS	EBIT and EPS
Exercise price	DKK 228	DKK 219
Vesting	Apr. 2016	Nov. 2016
Weighted average share price during exercise period	DKK 413	DKK 400
Average Black-Scholes value of options Assumptions:	EUR 3.8	EUR 2.9
Risk-free interest rate	0.23%	0.23%
Volatility	23.0%	19.9%
Dividend	1.5%	1.5%
Period	3-5 years	3-5 years

Number of share options	Executive Board	Key employees	Former employees	Total
Outstanding at August 31, 2016	361,365	134,680	194,575	690,620
Exercised	(361,365)	(115,580)	(194,575)	(671,520)
Outstanding at August 31, 2017	-	19,100	-	19,100
Exercised	-	(19,100)	-	(19,100)
Outstanding at August 31, 2018	-	-	-	-

## **5.1 SHARE-BASED PAYMENT** (CONTINUED)

#### Matching shares programs

Long-term matching shares programs are granted to the Executive Board and certain key employees. Under the programs, the participants are required to acquire a number of existing shares in Chr. Hansen Holding A/S (investment shares) and retain ownership of such shares for a predefined holding period of three years (the holding period). Upon expiration of the holding period and subject to fulfillment of certain predefined performance targets and continued employment at the vesting date, the participants will be entitled to receive up to four additional shares in Chr. Hansen Holding A/S (matching shares) per investment share for no consideration. The theoretical market value of the program in 2017/18 was EUR 3.1 million based on fulfillment of all predefined performance targets (EUR 2.5 million in 2016/17). The fair value at grant was EUR 2.8 million, taking into consideration the assessed likelihood of meeting the no-market condition (EUR 2.1 million in 2016/17).

EUR 0.9 million was expensed in 2017/18 relating to the matching shares programs, including accelerations and reversals (EUR 1.1 million in 2016/17).

Matching shares programs	Program 1	Program 2	Program 3	Program 4
Year allocated	2014/15	2015/16	2016/17	2017/18
Vesting conditions (KPIs)	Org. growth, EBIT, TSR	Org. growth, EBIT, TSR	Org. growth, EBIT, TSR	Org. growth, EBIT, TSR
Vesting	Nov. 2017	Nov. 2018	Nov. 2019	Nov. 2020
Average fair market value of matching shares	EUR 26.4	EUR 36.8	EUR 44.17	EUR 54.62
Assumptions:				
Dividend	1.5%	1.5%	1.5%	1.5%
Period	3 years	3 years	3 years	3 years
TSR peer group likelihood	50.0%	50.0%	50.0%	50.0%
	Executive	Key	Former	
Number of matching shares	Board	employees	employees	Total
Outstanding at August 31, 2016	41,524	17,540	16,748	75,812

Outstanding at August 51, 2010	41,524	17,540	10,740	75,012
Allocated	22,012	12,887	2,393	37,292
Transferred	(19,728)	-	19,728	-
Outstanding at August 31, 2017	43,808	30,427	38,869	113,104
Allocated	31,592	10,303	-	41,895
Transferred	(1,292)	-	9,656	8,364
Forfeited	(21,533)	(5,836)	-	(27,369)
Exercised	(14,728)	(8,936)	(20,328)	(43,992)
Outstanding at August 31, 2018	37,847	25,958	28,197	92,002

## **5.1 SHARE-BASED PAYMENT** (CONTINUED)

#### Short-term restricted stock unit (RSU) programs

Short-term RSU programs are granted to the Executive Board and other key employees based on fulfillment of individual key performance indicators and continued employment at the vesting date. The RSUs are granted as share options with an exercise price of DKK 1 and vest gradually over a three-year period. Subject to the person still being employed with Chr. Hansen, each share option may be exercised to purchase one existing share in Chr. Hansen Holding A/S. The value of RSUs allocated in 2017/18 (RSU program 9) was estimated to be EUR 0.9 million (EUR 0.7 million in 2016/17). The number of RSUs allocated, their value and underlying assumptions will be finally determined in November 2018.

EUR 0.9 million was expensed in 2017/18 relating to the short-term RSU programs (EUR 0.9 million in 2016/17).

There were no outstanding exercisable RSUs at August 31, 2018.

RSU programs	Program 4	Program 5	Program 6	Program 7	Program 8	Program 9
Year allocated	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	Nov. 2014,	Nov. 2015,	Nov. 2016,	Nov. 2017,	Nov. 2018,	Nov. 2019,
Vesting	2015 & 2016	2016 & 2017	2017 & 2018	2018 & 2019	2019 & 2020	2020 & 2021
Weighted average share price						
during exercise period	EUR 32.9	EUR 55.3	EUR 52.8	EUR 70.8	Not vested	Not granted
Average Black-Scholes value						
of options	EUR 25.8	EUR 33.8	EUR 53.5	EUR 52.3	EUR 74.4	EUR 85.90
Assumptions:						
Risk-free interest rate,						
average	(0.22)%	(0.01)%	(0.35)%	(0.57)%	(0.57)%	
Volatility, average	23.0%	18.8%	24.2%	21.3%	18.6%	
Dividend	1.5%	1.5%	1.0%	1.0%	0.9%	
Period	2-5 years					

\*Estimated value.

	Executive	Key	Former	
RSUs (number)	Board	employees	employees	Total
Outstanding at August 31, 2016	22,192	21,112	3,137	55,909
Adjustment to allocation	342	(3,504)	5	(3,157)
Allocated	4,386	5,897	-	10,283
Transferred	(4,558)	-	4,558	-
Exercised	(7,754)	(5,487)	(2,125)	(15,366)
Outstanding at August 31, 2017	14,608	18,018	5,575	38,201
Adjustment to allocation	541	(6,453)	-	(5,912)
Allocated	4,796	3,925	2,010	10,731
Transferred	(5,393)	-	5,393	-
Exercised	(5,448)	(5,129)	(2,536)	(13,113)
Forfeited	-	-	(3,511)	(3,511)
Outstanding at August 31, 2018	9,104	10,361	6,931	26,396

## **5.2 NON-CASH ADJUSTMENTS**

EUR million	2017/18	2016/17
Depreciation, amortization and impairment losses	0.3	0.2
Share-based payment	1.5	2.5
Total	1.8	2.7

## **5.3 RELATED PARTIES**

Related parties are defined as parties with control or significant influence, including Group companies.

At August 31, 2018, Novo Holdings A/S, Denmark, held 25.66% of the share capital in Chr. Hansen Holding A/S (significant influence).

In addition, Capital Group Companies Inc., US, held 9.99%, APG Asset Management N.V., Netherlands, held 5.15% and WCM Investment Management, US, held 5.00%.

Other related parties include members of the Group's Executive Board and Board of Directors together with their immediate families.

#### Transactions with Group companies

EUR million	2017/18	2016/17
Sale of services	22.4	19.5
Interest income	6.3	6.8
Interest expenses	(0.2)	(0.4)
Total	28.5	25.9
Amounts receivable at August 31 Amounts payable at August 31	248.1 75.3	252.0

Transactions with other related parties are specified in note 5.4 to the Consolidated Financial Statements.

## 5.4 EVENTS AFTER THE BALANCE SHEET DATE

No events have occurred after the balance sheet date of importance to the Annual Report.