



# Sustainability Report 2016/17

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COMMUNICATION ON PROGRESS



*Improving food & health*

# SUSTAINABILITY REPORT 2016/17

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Chr. Hansen's Communication on Progress report addresses the requirements of sections 99a and 99b of the Danish Financial Statements Act.

# INTRODUCTION

## LETTER TO STAKEHOLDERS

### **SUSTAINABILITY AS OUR BUSINESS MODEL**

Chr. Hansen is in a unique position to address the world's biggest challenges with its bioscience solutions. The biggest challenges are outlined in the UN Global Goals for Sustainable Development (UN Global Goals), and Chr. Hansen has measured its contribution after an assessment of its entire product portfolio.

I am proud that 81% of Chr. Hansen's gross revenue contributes positively to the UN Global Goals, making sustainability an integrated part of our value proposition.

Helping to reduce global food waste is an example of how our products contribute to sustainable development and the UN Global Goals. Food waste is a big global challenge and, in Europe alone, 20% of all dairy products are wasted. If Chr. Hansen applied its bioprotective solutions to all yogurt in Europe, it could reduce waste by up to 30%, keeping the yogurt fresh using nature's own protective mechanisms.

Another example of how we contribute to the UN Global Goals is by expanding the use of natural plant protection. Our products strengthen sustainable agriculture by enabling farmers to increase their yield while protecting the natural environment and workers. In 2016/17, Chr. Hansen entered into a partnership with CARE Denmark to expand the use of natural plant protection in Kenya. We look forward to seeing this partnership develop to the benefit of smallholder farmers in Kenya.

### **STRONGER INTERNAL PROCESSES**

This year, Chr. Hansen delivered its best-ever result within health and safety performance, setting the right course to reach the Lost-Time Incident Frequency (LTIF) target of  $\leq 2.0$  in 2020.

This is the result of focused efforts to establish a zero-accident mindset across the organization, so all employees can work safely, with clear instructions on how to minimize accidents at work.

As with safety, we are strengthening our processes within environment, and in 2016/17 we established a Global Environmental Excellence Center to enhance environmental awareness and performance in the organization and help reach our 2020 environmental targets.

The Sustainability report 2016/17 outlines the policies, systems and due diligence processes we have in place to manage and mitigate social, environmental and ethical risks. The report also shows how we work to ensure compliance with international standards, such as the UN Global Compact and the UN Guiding Principles on Business and Human Rights.

### **LOOKING AHEAD**

In the coming year, we will continue our efforts on contributing to the UN Global Goals and dive deeper into measuring our impact – especially within global health.

We are convinced that sustainable progress requires input from multiple stakeholders, and we invite our partners to join us in addressing global challenges.

Cees de Jong  
President & CEO

## OVERVIEW

# COMMERCIAL GOALS & HIGHLIGHTS

The table below illustrates the organizational anchoring, targets and progress for the long-term commercial goals in Chr. Hansen's Sustainability Strategy 2020. The commercial goals link business performance with the UN Global Goals.

	Better farming	Good health	Less waste
<b>UN Global Goals for Sustainable Development (UN Global Goals)</b>	Zero hunger and sustainable agriculture (UN Global Goal 2)	Good health and well-being (UN Global Goal 3)	Responsible production, consumption and reduction of food waste (UN Global Goal 12)
<b>Long-term targets</b>	Chr. Hansen's natural solutions applied across 25m hectares of farmland by 2025, equivalent to double the farmland of Italy <sup>1</sup>	Launch five new products with a documented health effect by 2020, covering probiotics as well as food ingredients to reduce salt, sugar and fat content	Reduce global yogurt waste by 700,000 tons (2% of global production) by 2020, equivalent to 12 years' total yogurt waste in the UK <sup>2</sup>
<b>Progress on targets<sup>3</sup></b>	3.5m hectares treated with natural plant solutions	Two products launched. This year launch of CoCoFresh	230,000-ton reduction in yogurt waste
<b>Strategic highlights, 2016/17</b>	<p>Danida-funded partnership with CARE Denmark to promote agricultural practices in Kenya</p> <p>Expanding biological solutions to more crops, with new products – Quartzo and Presence – to protect against nematodes</p>	<p>Launch of CoCoFresh – a culture containing a probiotic (Bifidobacterium, BB-12®) for fermented plant-based dairy alternatives</p> <p>Acquiring the LGG® strain, the most extensively documented probiotic strain for the gastrointestinal and immune system, to improve global health</p>	<p>Launch of food waste impact study</p> <p>Key opinion leaders engaged on food waste</p> <p>Food waste calculator developed for customers</p>
<b>Organizational anchoring</b>	Plant health and Natural Colors Division	Human health and Food Cultures & Enzymes	Food Cultures & Enzymes

<sup>1</sup> Eurostat 2010, [http://ec.europa.eu/eurostat/statistics-explained/index.php/Agricultural\\_census\\_in\\_Italy](http://ec.europa.eu/eurostat/statistics-explained/index.php/Agricultural_census_in_Italy).

<sup>2</sup> Wrap 2014, [http://www.wrap.org.uk/sites/files/wrap/Product-focused%20report%20v5\\_3.pdf](http://www.wrap.org.uk/sites/files/wrap/Product-focused%20report%20v5_3.pdf).

<sup>3</sup> From base year 2015/16.

## OVERVIEW

# OPERATIONAL GOALS & HIGHLIGHTS

The table below illustrates governance, targets and progress for Chr. Hansen's operational goals & highlights.

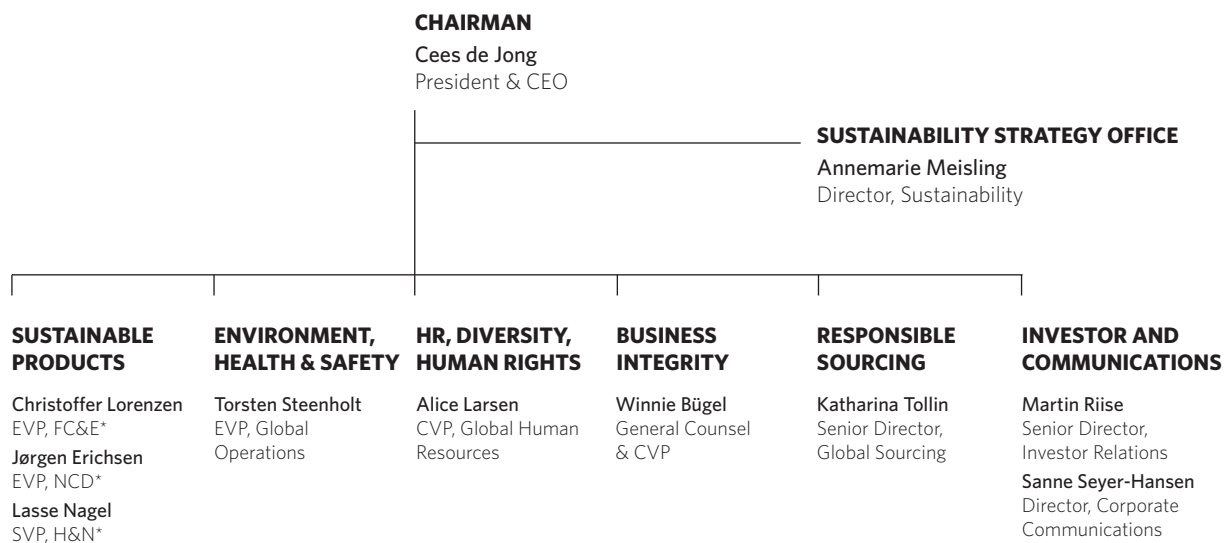
	<b>Workplace responsibility</b>	<b>Climate and environmental sustainability</b>	<b>Business and product integrity</b>	<b>Human rights and responsible sourcing</b>
<b>UN Global Compact</b>	Principles 1-6	Principles 7-9	Principle 10	Cross-cutting (all principles)
<b>Long-term targets, 2020<sup>4</sup></b>	Lost-Time Incident Frequency (LTIF) of ≤ 2.0	20% energy and water efficiency improvement	Extension of business integrity processes and procedures on anticorruption to third parties	Full implementation of responsible sourcing roadmap
	80% diverse corporate management teams	25% CO <sub>2</sub> efficiency improvement		
		40% of waste recycled		
<b>Progress on targets<sup>5</sup></b>	LTIF: 2.5	Energy efficiency: 5% improvement	100% of relevant employees completed anticorruption e-learning	86% of direct suppliers approved under Chr. Hansen's vendor approval guidelines
	Diverse corporate management teams: 66%	Water efficiency: 0% improvement		
		CO <sub>2</sub> efficiency: 15% improvement		
		Waste: 29% recycled		
<b>Strategic highlights, 2016/17</b>	"Take 5" campaign on Health & Safety	Launch of environmental & energy strategy	Launch of third-party risk management framework	Global human rights assessment
	Global assessment of diversity gaps and opportunities	Global Environmental Excellence Center	23 third-party audits of quality and food safety	UK Modern Slavery Act Statement
<b>Policies and positions</b>	People, Knowledge & Organization Policy	Business Integrity Policy	Business Integrity Policy & Anticorruption Position	Sustainability Position
	Diversity Objectives	Sustainability Position	Product Safety Position	Supplier Guiding Principles
<b>Systems and due diligence processes</b>	Global safety assessments & minimum requirements	Environmental & energy assessment	Third-party due diligence process & Whistleblower hotline	Vendor management system & SMETA audits
	Engagement Matters survey & ePDI	ISO 14001 certification (6 sites) and ISO 50001 certification (2 sites)	FSSC 22000 certification (all sites)	Human rights due diligence process
<b>Organizational anchoring</b>	Health & Safety Global HR	Global Operations	Compliance	Global Sourcing

<sup>4</sup> From base year 2013/14.

<sup>5</sup> Op ibid.

# OVERVIEW

## SUSTAINABILITY BOARD CHART



\* FC&E = Food Cultures & Enzymes NCD = Natural Colors Division H&N = Health & Nutrition

### PURPOSE OF THE BOARD

Chr. Hansen's Sustainability Board is responsible for ensuring ownership, involvement and commitment from the core business in defining, prioritizing and executing Chr. Hansen's sustainability strategy and activities.

# COMMERCIAL GOALS

## SUSTAINABLE PRODUCTS

### OUR CONTRIBUTION TO THE UN GLOBAL GOALS

81% of Chr. Hansen's gross 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 2016/17 and assured by the accounting company PwC.

### BETTER FARMING (UN GLOBAL GOAL 2)

Chr. Hansen enables farmers to increase productivity by using microbial solutions that help reduce use of chemical pesticides on crops while also increasing yields.

To further expand the use of natural bacteria, a Danida-funded partnership with CARE Denmark was initiated in 2016/17. The aim is to help smallholder farmers in Kenya to gain access to new technology in the form of biological plant protection that can increase yields. The project comprises local capacity building, knowledge transfer, job creation and environmental protection.

Chr. Hansen has a target to reach 25 million hectares of farmland with its natural solutions by 2025. 14% of this target was achieved this year, with a total of 3.5 million hectares treated since 2015/16.

### GOOD HEALTH (UN GLOBAL GOAL 3)

Chr. Hansen contributes to global health through its probiotics and healthy food ingredients. Chr. Hansen has committed to launching five new health products by 2030. Two have been launched since 2015/16. During 2016/17, Chr. Hansen launched a new culture, CoCoFresh, enabling its customers to produce

fermented plant-based dairy alternatives. The culture is combined with a version of the world's most extensively documented probiotic, Bifidobacterium, BB-12®, bringing the benefits of probiotics to vegans.

### LESS WASTE (UN GLOBAL GOAL 12)

Chr. Hansen's bioprotection can extend the shelf life of fresh dairy products by inhibiting the growth of yeast and mold, reducing the quantity wasted. An impact study developed by the external consultancy QBIS concluded that bioprotection can reduce annual yogurt waste in Europe by 30%, resulting in annual net savings of 430,000 tons CO<sub>2</sub> and EUR 180 million for the European economy.

Food waste reduction is central to Chr. Hansen's sustainability strategy, and the 2020 target is to reduce yogurt waste by 700,000 tons. 33% of this target was achieved this year, with a reduction of 230,000 tons since 2015/16. Chr. Hansen calculated food waste reduction possibilities for customers and engaged key opinion leaders in the fight against food waste. For this work, Chr. Hansen was named "Green profile of the year" by the municipality of Rudersdal, Denmark.

### FOCUS AREAS 2017/18

In 2017/18, Chr. Hansen will focus on how probiotics can have a positive impact on public health expenditures.

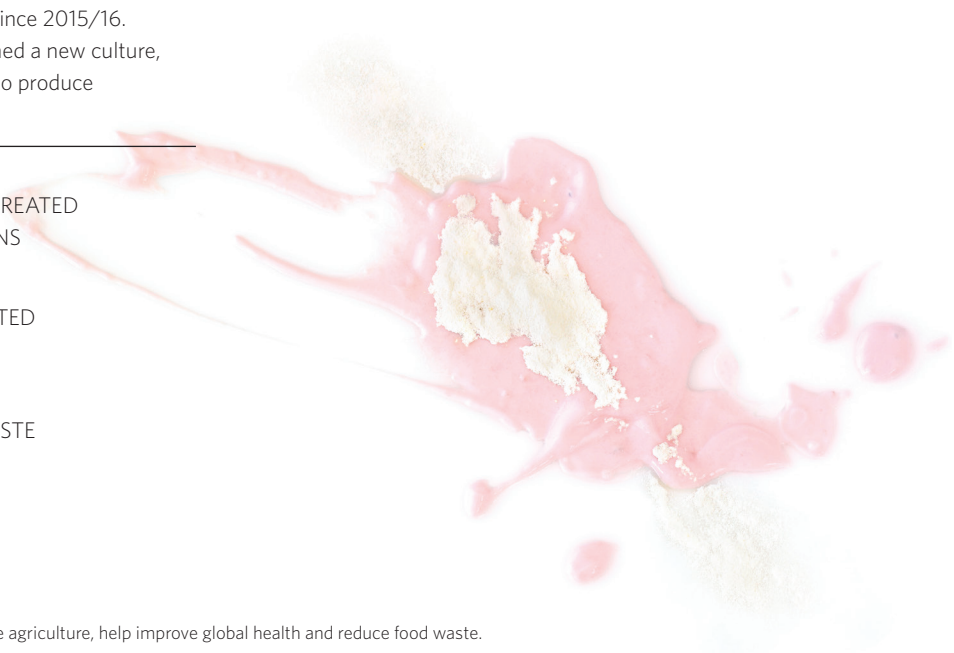
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**3.5M HECTARES OF FARMLAND TREATED WITH NATURAL PLANT SOLUTIONS SINCE 2015/16**

**2 PRODUCTS WITH A DOCUMENTED HEALTH EFFECT LAUNCHED SINCE 2015/16**

**230,000 TONS LESS YOGURT WASTE SINCE 2015/16**

Chr. Hansen's products promote sustainable agriculture, help improve global health and reduce food waste.



# OPERATIONAL GOALS

## WORKPLACE RESPONSIBILITY

### BEST-EVER RESULT IN HEALTH AND SAFETY

Chr. Hansen recorded its best-ever performance within health and safety. This is reflected in a 38% decrease in the Lost-Time Incident Frequency (LTIF) from 4.0 last year to 2.5 in 2016/17. This means that Chr. Hansen is well on track to achieve the target of  $\leq 2.0$  in 2020. The strong focus on health and safety is also reflected in the severity of incidents, which went down from 10 to five days on average, equivalent to a 50% improvement on 2015/16.

The main reason for the strong results is a combination of high-level Management attention, global safety assessments, global minimum requirements and the launch of new behavior-based safety tools.

### ENGAGEMENT MATTERS

The overall score in the 2016/17 Gallup Engagement Survey increased during the year, with a response rate of 96%. The survey showed that the number of highly engaged teams increased significantly from 19 to 91. This was primarily due to the strong focus on engagement throughout the year, with more than 1,000 engagement action plans being developed and implemented across the Company.

### EMBRACING DIVERSITY

Inclusion and diversity are instrumental in realizing Chr. Hansen's full potential in tomorrow's business. To achieve a diverse working environment, Chr. Hansen has set out a number of targets and operational goals in its Diversity & Inclusion Objectives<sup>6</sup>. The objective is to increase diversity on the Board of Directors, in

Management and key positions, focusing on gender, age and nationality. In 2016/17, Chr. Hansen worked to further integrate diversity into relevant HR processes such as recruitment, career planning and personal development, and initiated a global assessment of diversity gaps and opportunities.

There has been a positive trend toward more non-Danes in key positions, and in 2016/17, the proportion increased from 41% to 43%. However, due to an organizational restructuring, the percentage of diverse teams decreased by 3 percentage points.

The percentage of women in key positions has increased over the years, but remained stable on 2015/16 at 22%. Women in key positions will be a focus area in the upcoming diversity and inclusion strategy, which is anchored with top management.

Chr. Hansen has achieved equal gender representation on all Board of Directors in all companies<sup>7</sup> under Danish law<sup>8</sup>. By 2019/20, the Board of Directors aims at having at least three women among the board members elected by the Annual General Meeting, whilst maintaining a strong diversity of skills, experience and nationalities

### FOCUS AREAS 2017/18

Chr. Hansen will continue its focus on health and safety to strengthen and maintain a zero-accident mindset.

In 2017/18, the Company will launch its first global leadership development program, build on best practices from the engagement survey and roll out its diversity and inclusion strategy.

### 2.5 LOST-TIME INCIDENT FREQUENCY

### 39% WOMEN IN MANAGEMENT POSITIONS

### 2 WOMEN AND 5 NON-LOCALS ON THE BOARD OF DIRECTORS

<sup>6</sup> Diversity & Inclusion Objectives can be found at <http://www.chr-hansen.com/en/about-us/policies-and-positions>.

<sup>7</sup> See the Danish Business Authority's Guide on target figures and policies for the gender composition of management at <https://erhvervsstyrelsen.dk>.

<sup>8</sup> This applies to Chr. Hansen A/S, Chr. Hansen Holding and Chr. Hansen Natural Colors A/S.



To Chr. Hansen, workplace responsibility is of the highest priority.



# OPERATIONAL GOALS

## CLIMATE AND ENVIRONMENTAL SUSTAINABILITY

### ENHANCED ENVIRONMENTAL MANAGEMENT

A Global Environmental Excellence Center was established in 2016/17 to strengthen environmental governance and help the organization reach its 2020 environmental targets. The Center ensures a global approach to environmental management and supports all major production sites in obtaining ISO 14001 environmental certification.

During 2016/17, Chr. Hansen launched a global “Go Green” project to sharpen focus on energy management and reduce environmental impact throughout its operations. The project helped sites to identify and mitigate risks and invest in energy efficiency solutions. Key risks to Chr. Hansen include how to grow the business without growing the environmental footprint, especially with regard to cold storage of our final products at -55°C.

### INVESTING IN THE FUTURE

In 2016/17, Chr. Hansen identified and invested in technical solutions that will help increase production volumes and enhance energy efficiency on a long-term basis. This included the installation of significantly higher fermentation capacity, new steam accumulators and superfreezers.

The equipment will have a positive environmental impact in the coming years, but the installation resulted in a decrease in energy efficiency of 3 percentage points this year as Chr. Hansen needed to shut down production for three weeks. When production shuts down, the machinery is still running, resulting in higher energy consumption.

The new installations are expected to help Chr. Hansen meet its 2020 target of a 20% improvement in energy efficiency and a 25% improvement in CO<sub>2</sub> efficiency since the base year 2013/14.

Chr. Hansen increasingly focused on waste handling during the year. Thanks to initiatives such as plastics sorting and using product scrap for biogas production and field fertilizer, the use of recycled waste rose by 6 percentage points in 2016/17.

In 2016/17, water efficiency decreased by 11 percentage points on the previous year. This is mainly due to higher water usage at the Natural Colors sites, which will be a key focus area in 2017/2018.

### FOCUS AREAS 2017/18

In 2017/18, the process of pursuing ISO 14001 certification at the remaining manufacturing sites will continue alongside an increased focus on enhancing energy and water efficiency at several major sites.

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**15% IMPROVEMENT IN CO<sub>2</sub> PERFORMANCE SINCE 2013/14**

**5% ENERGY EFFICIENCY IMPROVEMENT SINCE 2013/14**

**29% SOLID WASTE RECYCLED**



Chr. Hansen is committed to reducing its environmental footprint.

# OPERATIONAL GOALS

## **BUSINESS AND PRODUCT INTEGRITY**

### **BUSINESS ETHICS REMAIN A PRIORITY**

As a global ingredients supplier and bioscience company, Chr. Hansen is committed to ensuring fair, transparent and ethical standards of business conduct.

Chr. Hansen has a large number of third parties, such as agents, contracted sales forces and distributors, working directly or indirectly on behalf of the Company. To ensure that third parties act according to Chr. Hansen's policies and guidelines, the system for managing third parties was strengthened during 2016/17. This included mapping and risk segmentation of 800 third parties, as well as identification of best-practice processes, which will be part of the mandatory onboarding process for third parties going forward.

Chr. Hansen operates across industries and geographical contexts where the risks to business integrity vary. To ensure that employees are equipped to handle potential risks, mandatory online training must be completed each year by all employees in relevant functions. Through intensive focus from Management, 100% of invited employees completed the training in 2016/17. In-person training on anticorruption, business integrity and the whistleblower hotline was also carried out during 2016/17.

### **ENCOURAGING STAKEHOLDERS TO RAISE CONCERNS**

Chr. Hansen continues to encourage employees and external stakeholders, such as customers and suppliers, to raise concerns via the whistleblower hotline or directly with Management. In 2016/17, five whistleblower cases were reported. Four of them were raised through

the hotline. All cases were investigated. Two cases were closed as unjustified. One case was justified and appropriate actions taken. Two cases are still pending.

### **DELIVERING SAFE PRODUCTS**

Delivering safe, high-quality products that customers can trust is key to Chr. Hansen's business. All production sites are certified according to the food safety standard FSSC 22000, and Bureau Veritas audits take place across Chr. Hansen sites every other week on average. The Company takes responsibility for sharing its knowledge with industry stakeholders by participating in the work to revise ISO 22000 and by serving on public advisory boards.

In 2016/17, two product retrievals were carried out, which is an improvement on previous years. The retrievals were of a precautionary nature in light of potential quality risks and not the result of an actual confirmed risk to health and safety.

### **FOCUS AREAS 2017/18**

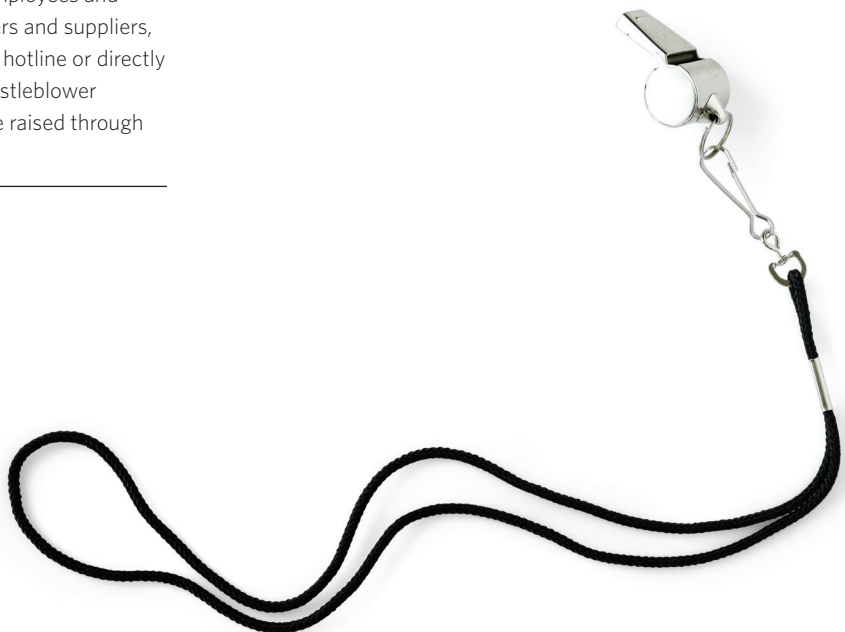
In 2017/18, Chr. Hansen will continue its efforts to mitigate risks related to third parties.

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**100% EMPLOYEES COMPLETED  
ANTICORRUPTION E-LEARNING**

**2 PRECAUTIONARY  
PRODUCT RETRIEVALS**

**5 BUSINESS INTEGRITY CONCERNS  
REPORTED AND ACTED ON**



Chr. Hansen has a formalized whistleblower system in place.

# OPERATIONAL GOALS

## HUMAN RIGHTS AND RESPONSIBLE SOURCING

### STRENGTHENING FOCUS ON HUMAN RIGHTS IMPACTS

Chr. Hansen respects human rights and supports the UN Guiding Principles on Business and Human Rights. During 2016/17, Chr. Hansen strengthened its approach to human rights and conducted due diligence across its value chain to identify risks and assess the existing systems and processes to protect human rights.

Chr. Hansen's business and industry are associated with a low risk of human rights violations. The main risks lie with suppliers of agricultural raw materials for Natural Colors Division that are located in developing countries. To mitigate risks from this supplier group, Chr. Hansen established a new process during 2016/17, in which Chr. Hansen's sourcing employees assess and document social and environmental risks at farmer level on a regular basis. This process will become standard practice once the pilot phase is finalized.

In 2016/17, Chr. Hansen published its first UK Modern Slavery Act Statement, documenting the procedures established to ensure that modern slavery is not occurring in the supply chain. The statement is available on the Company's website and will be updated annually.

### SUPPLIER ENGAGEMENT

Chr. Hansen approves new direct suppliers based on their performance against quality, sustainability and sourcing criteria. In 2016/17, 86% of Chr. Hansen's direct suppliers were approved, with the remainder pending.

The Supplier Guiding Principles are a key component in the collaboration with suppliers, covering principles within quality, food safety, CSR and regulatory compliance. The

principles are included in standard contracts and are therefore binding obligations that the supplier must follow.

Chr. Hansen continues to engage with suppliers of agricultural raw materials to help them professionalize their business processes and increase yields. Chr. Hansen has ongoing and long-term supplier relations in the primary, and high-risk, sourcing regions, including Africa, South Asia and South America.

### A TRANSPARENT SUPPLIER

Chr. Hansen is a transparent supplier and devotes significant resources to disclosing information regarding its social, environmental and ethical performance, and its management. All major sites undergo SMETA audits on a regular basis and document their performance via global reporting platforms such as SEDEx, EcoVadis, FTSE4Good, Sustainalytics and the Carbon Disclosure Project.

### FOCUS AREAS 2017/18

In 2017/18, Chr. Hansen will focus its efforts on further developing and strengthening the responsible sourcing roadmap in line with the target of full implementation by 2020.

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**86% OF DIRECT  
SUPPLIERS APPROVED**

**3 SMETA AUDITS CONDUCTED  
IN 2016/17**

**TOP 20<sup>TH</sup> PERCENTILE IN THE OEKOM  
CORPORATE REPORT**



Chr. Hansen respects human rights and undergoes sustainability (SMETA) audits.

## KEY FIGURES

# ACCOUNTING POLICIES AND PERFORMANCE

## 1. BETTER FARMING

### ACCOUNTING POLICY

The target for better farming is to expand the reach of our natural plant protection solutions to 25 million hectares of farmland by 2025. The solutions to support the target included in the calculation are naturally derived plant protection and silage inoculants. Plant protection is applied directly to the crop on the farmland, whereas silage

inoculants are applied after harvesting. The target is based on sales numbers and current application rates for plant protection and silage inoculants. For plant protection, an estimated delay of six months from sale to application in the field is assumed.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Natural solutions applied across 25 million hectares of farmland by 2025, ha	3.5m*	2.2m			

\* In 2016/17, Chr. Hansen applied its natural plant protection solutions across 1.3 million hectares.

## 2. GOOD HEALTH

### ACCOUNTING POLICY

Chr. Hansen is committed to launching five new products with a documented health effect by 2020. The products included in the target are within human health, including probiotics and new food solutions that have a beneficial

health effect, such as reduced sugar or salt content. The effects are to be documented internally at Chr. Hansen's laboratories or through customer field trials.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Launch five new products with a documented health effect by 2020, no.	2*	1			

\* In 2016/17, Chr. Hansen launched one product with a documented health effect as Chr. Hansen launched CoCoFresh, a new culture containing Bifidobacterium, BB-

12®. The culture is specifically developed for fermented plant-based dairy alternatives.

# KEY FIGURES

## 3. LESS WASTE

### ACCOUNTING POLICY

The target to reduce global yogurt waste by 700,000 tons (2% of global production) by 2020 builds on the waste reduction potential of the natural microbial product FreshQ® in fermented milk applications and other similar products that may be launched in the future.

One of the primary shelf life-limiting factors for fermented milk products, such as yogurt, is natural spoilage with yeast and mold. The protective cultures of FreshQ® inhibit the growth of yeast and mold contamination in dairy products

and can thereby also help reduce spoilage and extend shelf life. For the purpose of this accounting policy, it is presumed that FreshQ® can extend shelf life by seven days. This is a conservative average estimate for a fermented milk product produced by an average European dairy and sold under average European cold-chain conditions. The average waste from yogurt is estimated to be 15% (FAO, 2011). FreshQ® spoilage inhibition and shelf life extension can reduce this to 6.8%. The base year for the target is 2015/16.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Reduce global yogurt waste by 700,000 tons (2% of global production) by 2020	230,000*	100,000			

\* In 2016/17, Chr. Hansen contributed to reducing global yogurt waste by 130,000 tons, keeping the Company well on

track to meet the 2020 target.

## 4. ENERGY FOOTPRINT

### ACCOUNTING POLICY

All energy used is recorded based on direct meter readings or invoices, and reported in MWh. Fuel for on-site forklift trucks or other vehicles is not included.

The organizational scope covers all manufacturing facilities and, when located adjacent to these, includes offices, warehouses and other activities.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Total energy consumption, MWh	185,168	170,853	166,713	165,615	156,902
Energy efficiency, relative to base year 2013/14, %	5	8			

# KEY FIGURES

## 5. WATER FOOTPRINT

### ACCOUNTING POLICY

For the purpose of this definition, water comprises all sources and uses: products, noncontact cooling water, steam and domestic water. The source of the water may be the municipal water supply, a private water supply, groundwater or surface water. Water volumes are reported in cubic meters based on metered intake or invoices. At some production sites, noncontact cooling water is either reinjected into the groundwater reservoir or released into

surface water. As the noncontact water is not contaminated with either products or chemicals, and is therefore not net consumption, this source is excluded from the calculation of water consumption.

The organizational scope covers all manufacturing facilities and, when located adjacent to these, includes offices, warehouses and other activities.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Total water consumption, m <sup>3</sup>	1,298,026	1,146,891	1,095,907	1,077,150	1,062,610
Water efficiency, relative to base year 2013/14, %	0*	5			

\* In 2016/17, water efficiency decreased by 11 percentage points on last year. This was a reduction from 5% above base year in 2015/16, to -6% below base year in 2016/17.

The decrease in efficiency was due to higher water usage at Natural Colors sites and will be a focus area in the coming year.

## 6. CO<sub>2</sub> FOOTPRINT

### ACCOUNTING POLICY

Emissions of greenhouse gases are accounted for in accordance with the Greenhouse Gas (GHG) Protocol Corporate Standard. Under the Protocol, emissions are reported according to three scopes (see table on page 15).

Scope 1 includes emissions from energy consumption and cooling systems. No transportation is included in Scope 1.

Scope 3 emissions include only indirect transportation paid for by Chr. Hansen. This mainly covers the transportation of final products to Chr. Hansen's customers as well as internal transportation between production sites. This is expected to be the greatest single source of Scope 3 emissions. Scope 3 emissions are rough estimates based on distances and emission factors from the GHG Protocol.

## KEY FIGURES

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Total Scope 1 CO <sub>2</sub> e emitted, tons	21,748	21,024	22,039	24,029	23,470
Total Scope 2 CO <sub>2</sub> e emitted, tons	26,379	24,830	24,336	24,665	24,325
Total Scope 3 CO <sub>2</sub> e emitted, tons	88,140*	63,255	62,225	54,526	57,150
Total CO <sub>2</sub> e emitted, tons	136,267	109,109	108,600	103,220	104,945
CO <sub>2</sub> efficiency, relative to base year 2013/14 (Scopes 1 + 2), %	15	16			

\* In 2016/17, Chr. Hansen continued its focus on modes of transportation and possible areas of improvement in terms of shifting to less CO<sub>2</sub>-intensive options such as road and sea freight. The shift must, however, match the needs of

the business and customers. In 2016/17, total CO<sub>2</sub> emissions from transport increased due to a need for more air freight and due to sales growth in remote markets.

## 7. WASTE AND BY-PRODUCTS

### ACCOUNTING POLICY

Waste and by-products comprise wastewater, recycled biomass and solid waste. Wastewater discharge comprises wastewater from production and other activities, such as domestic wastewater. Water recycled on site is excluded.

Wastewater is measured after any on-site wastewater treatment processes. Recycled biomass, a by-product of production, is utilized as liquid fertilizer, liquid feed or fuel for energy production.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Recycled biomass, tons	89,324	82,680	76,474	67,402	60,300
Solid waste, tons	4,635	3,176	3,103	3,170	3,576
Solid waste recycled, %	29	23	20	23	20
Hazardous waste, % of solid waste	1	1	1	1	0
Wastewater, m <sup>3</sup>	854,624	839,117	832,664	875,588	881,085

## 8. ENVIRONMENTAL VIOLATIONS

### ACCOUNTING POLICY

Breaches of regulatory terms and conditions as specified in environmental permits, for example accidental spills or excess emissions, are reported only where separate

notification to the authorities is required, or where a notice of violation is received from the authorities.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Environmental violations, no.	0	3	4	7	n/a

# KEY FIGURES

## 9. CONSUMER PROTECTION

### ACCOUNTING POLICY

The effectiveness of Chr. Hansen's procedures and systems to ensure adequate attention to the safety and protection of consumers is monitored through product safety retrievals and product safety audit findings.

Product safety retrievals are defined as incidents where Chr. Hansen's products are retrieved from customers due to poor quality, legal or regulatory noncompliance, or potential or actual food safety risks. Product retrievals are recorded on the day the retrieval decision is made.

Product safety audit findings are defined as nonconformities raised by Bureau Veritas Certification (BVC) during ISO 22000 or FSSC 22000 audits, indicating a serious breach of the Group's food safety management systems. If the final BVC audit report has not been received at the time of reporting, the number (and type) of nonconformities mentioned at the audit exit meeting is used.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Product safety retrievals, no.	2	3	4	4	6
Product safety audit findings, no.	8	9	10	17	32

## 10. ETHICS

### ACCOUNTING POLICY

Chr. Hansen records the number of employees trained in anticorruption policies and procedures. This KPI reflects the participation rate for employees who have completed Chr. Hansen's online anticorruption training during the year, as a percentage of all relevant employees. Relevant employees

are defined as employees with area or management responsibility as well as employees with external contacts, for example in sales or sourcing.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Participation rate in anticorruption training, %	100	100*	94	92	90

\* As the training periods follow the calendar year, the number for 2015/16 has been updated and reflects the actual

percentage of employees who completed the training.



# KEY FIGURES

## 11. PEOPLE STATISTICS

### ACCOUNTING POLICY

The number of employees is the total number at year-end. All employees paid directly by the Group are included in the headcount. The number of employees is also expressed as full-time equivalents (FTEs) based on a yearly average.

Employee turnover is calculated as an accumulated percentage at the end of the financial year. The calculation is based on the number of employees who were dismissed or voluntarily left the Group in each month compared to the

total number of employees per month. Temporary employees are not included in this number.

The rate of absence is the number of days employees have been absent due to their own illness compared to the number of possible annual working days (240). Absence due to illness of children or relatives and maternity/paternity leave is not included.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Total number of employees	3,111	2,852	2,651	2,605	2,525
Average number of employees (FTEs)	2,940	2,708	2,573	2,510	2,510
Employee turnover, %	12	10	12	11	12
Rate of absence, %	2	2	2	2	2

## 12. DIVERSITY AND INCLUSION

### ACCOUNTING POLICY

Data are calculated as the percentage of employees within each category (e.g. gender and nationality) at the end of the financial year. Key positions are defined as director level and above. 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. The composition of the Board of Directors is calculated at the end of the financial year.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Gender – all employees (male/female), %	58/42	58/42	58/42	58/42	59/41
Gender – managers (male/female), %	61/39	61/39	64/36	65/35	66/34
Gender – key positions (male/female), %	78/22	78/22	82/18	81/19	82/18
Nationality – key positions (Dane/non-Dane), %	58/43	59/41	63/37	59/41	60/40
Diverse teams, %	66	69	77	69	63
Board of Directors (male/female/non-local), %	71/29/71*	71/29/57	71/29/57	83/17/50	100/0/50

\* These numbers apply to the Board of Directors in Chr. Hansen Holding. Two of the seven shareholder-elected members of the Board of Directors of Chr. Hansen Holding

are women. At both Chr. Hansen A/S and Chr. Hansen Natural Colors A/S, one of the three shareholder-elected members is a woman<sup>9</sup>.

<sup>9</sup> See the Danish Business Authority's Guide on target figures and policies for the gender composition of management at <https://erhvervsstyrelsen.dk>.

# KEY FIGURES

## 13. EMPLOYEE DEVELOPMENT

### ACCOUNTING POLICY

The average number of training days per employee per year is recorded locally in individual training records.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Training days per employee	2.8	3.4	3.4	3.1	3.0

## 14. OCCUPATIONAL HEALTH & SAFETY

### ACCOUNTING POLICY

The number of Lost-Time Incidents (LTIs) is defined as accidents resulting in more than one day's absence from work. The LTI frequency is calculated as incidents resulting in more than one day's absence per million working hours, excluding sickness, maternity/paternity leave and holidays. A

decrease in the frequency is an improvement. The severity of incidents is measured as the number of days away from work per incident and/or the expected number of days away. Only days away recorded within the year in which the incident occurred are included in the severity KPI.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Lost-Time Incidents (LTIs)	13	19	15	17	34
Frequency of LTIs per million working hours (LTIF)	2.5	4.0	3.3	4.0	8.1
Severity (days away per LTI)	5	10	25	20	15
Fatalities	0	0	0	0	0

## 15. RESPONSIBLE SOURCING

### ACCOUNTING POLICY

Chr. Hansen differentiates between direct and indirect suppliers when onboarding suppliers. Direct suppliers are those that supply Chr. Hansen with raw materials, traded goods or food-contact materials, or perform part of our production on our behalf (toll manufacturers). As a result, direct suppliers are subject to a more stringent approval

process, as detailed in Chr. Hansen's Supplier Guiding Principles. Responsible sourcing progress is measured as the percentage of direct suppliers that have been approved in relation to sourcing, quality and corporate social responsibility.

PERFORMANCE	2016/17	2015/16	2014/15	2013/14	2012/13
Direct suppliers approved, %	86	85	87	84	n/a

# APPENDIX

## LEGAL REQUIREMENTS

Reference to §99a of Act no. 738 regarding changes to the Danish Financial Statements Act, June 1. 2015.

§99A REFERENCE	READER'S GUIDE
Sustainability definition §99a	Chr. Hansen reports on all areas of the sustainability definition, including human rights, employee relations, environmental and climate impact and measures to fight corruption.
Business model §99a (2) (1)	See "Sustainability as our business model" on page 3.
Governance §99a, (2) (2)	See "Policies and positions" in the overview section on page 5.
Systems and "due diligence processes" §99a, (2) (3)	See "Systems and due diligence processes" in the overview section on page 5.
Key risks §99a, (2) (4)	A description of the key risks has been integrated into each of the relevant chapters, for example environmental risks in the chapter on climate and environment.
KPIs §99a, (2) (5)	See long-term goals in the overview sections on pages 4-5 and a five-year progress report under "Key figures" on pages 12-18.
Results §99a, (2) (6)	See "Progress on targets" and "Strategic highlights" in the overview sections on pages 4-5 and a detailed description in the relevant chapters.
Means of reporting §99a, (4) (1,2)	Chr. Hansen has decided to provide a separate sustainability report, which is available for download from the website at <a href="http://www.chr-hansen.com/en/sustainability/reporting-and-disclosure">http://www.chr-hansen.com/en/sustainability/reporting-and-disclosure</a> .