



# Sustainability Report

2018/19

COMMUNICATION ON PROGRESS

**CHR HANSEN**

*Improving food & health*

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**In 1949, Chr. Hansen published its first public commitment to sustainability.** Seventy years later, at the 2019 World Economic Forum, we were named the most sustainable company in the world by Corporate Knights.

Letter to our stakeholders

# Leading towards a more sustainable food system

As one of the world's oldest bioscience companies, we have an important role to play in building a more sustainable food system: One that can feed a growing population without imperiling the environmental resources that we share and rely on as a global community.



**Mauricio Graber**  
President & CEO

At Chr. Hansen, we believe we must look to nature to build a sustainable future. When it comes to building a more resilient food system, we believe that the technology is already here, and it is powered by good bacteria.

#### Globally recognized commitment to sustainability

We were immensely proud and honoured to be named the most sustainable company in the world by Corporate Knights earlier this year. It is a great recognition of the work we have done but it also makes us humble.

Our influence in the marketplace means we have an obligation to be a leader within our industry, asking hard questions and continuing to innovate in order to create solutions that make food systems more resilient and able to meet global food needs in the long term.

Working within a sustainability-oriented framework is integral to our product portfolio, our corporate strategy, our culture and our purpose. It is clearly reflected in the fact that once again this year 82% of our revenue comes from products that support the United Nations Global Goals, and it is reflected in many of the milestones we have achieved over the past year.

#### Milestones 2018-19

In addition to being ranked the world's most sustainable company, Chr. Hansen also received CARE Denmark's Award, in recognition of our work to bring natural plant solutions to some of the world's neediest communities. With two new product launches – Sweety® Y-1 and CHY-MAX® Supreme – we have brought additional solutions with proven benefits to human health and the environment to market.

We conducted a new health economic study in the US showing the significant cost-savings potential of probiotics through reducing the number of sick days, visits to the doctor and prescriptions related to flu-like sickness.

This year also brought exciting achievements in our collaborative efforts with partners, both within and outside our industry. We initiated a partnership with Denmark's Better Energy to increase our use of renewable energy, and our joint venture with Lonza focusing on investing in microbiome-based biotherapeutics marks the first step in developing future health solutions.

Internally, our performance during the year reflects our unwavering commitment: We had the fewest number of safety incidents in our history and a 100 percent completion rate in our business integrity training.

#### Collaborating towards sustainable food systems

We are on a critical journey toward building a sustainable food system, and we know that we cannot do it alone.

Food systems are global, the environmental challenges we face today are global, and so too must their solutions be global in scale. We are committed to doing our part to lead this change, contribute to market-based solutions, and be a part of the change we wish to see.

As we look ahead and consider our role as a leading global player in the food, health, and agricultural industries, we are committed to securing sustainability as a fundamental starting point in all collaborative efforts within our industries and across stakeholder groups. We continue our support of the UN Global Compact as part of this commitment, and we continue to shape our strategic objectives around those that meet global goals for sustainable growth.

In the coming year we will strengthen focus on reduction and reuse of plastics, increase our contribution to a circular economy and further activate the power of good bacteria with our partners around the world.

# Delivering products from farm to fork

At Chr. Hansen, we are passionate about fermentation technology and microbes, which we refer to as 'good bacteria'. When applied in the proper circumstances, good bacteria can help to address some of the major challenges facing our modern world, helping to keep food fresh and safe, reduce food waste, and provide alternatives to preservatives and artificial ingredients.



## 1 billion

More than 1 billion people consume products containing our natural ingredients every day.



## 40,000

Our bacteria collection is composed by almost 40,000 strains.



## 50%

Every second cheese and every second yogurt in the world contains at least one of our natural ingredients.

# Commercial goals and highlights



## Better farming



## Good health



## Less waste

### UN Global Goals

**Goal 2:** End hunger and promote sustainable agriculture

**Goal 3:** Ensure healthy lives and promote well-being for all at all ages

**Goal 12:** Ensure sustainable consumption and production patterns

### Long-term targets

Expand reach of natural plant solutions to 25m hectares of farmland (2025)

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

Reduce global yogurt waste by 1.2m tons (2022)

### Progress on targets\*

10.4m hectares treated with natural solutions

Four products launched  
During the year, we launched Sweety®, the first patented culture that can reduce added sugar in yogurt

580,000t reduction in yogurt waste

We continue to push the food waste agenda, bringing it to new customers, new markets and new partners

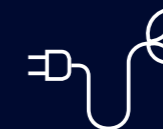


\* Accumulated since base year 2015/16. For information on progress on targets see Key figures explained, p. 28.

# Operational goals and highlights



## Workplace Responsibility



## Climate and Environment



## Leading with integrity

### UN Global Goals

**Goal 8:** Decent work and economic growth

**Goal 13:** Climate action

**Goal 12:** Ensure sustainable consumption and production patterns

### Long-term targets, 2022

Lost Time Incident Frequency (LTIF) of  $\leq 1.8$

20% energy and water efficiency improvement\*

100% of relevant employees to complete annual e-learning in anti-corruption

30% women at Directors+ level

25% CO<sub>2</sub> efficiency improvement\*

55% non-Danes at Directors+ level

40% of solid waste recycled

### Progress on targets

LTIF: 1.32

Energy efficiency: 10.8% improvement\*

100% of relevant employees completed e-learning on anti-corruption

25% women at Directors+ level

Water efficiency: 6.5% improvement\*

43% non-Danes at Directors+ level

CO<sub>2</sub> efficiency: 26.5% improvement\*

Solid waste: 45.5% recycled



\* Since base year 2013/14. For information on progress on targets see Key figures explained, p. 28.



**“We believe that increasing the available solutions and bringing novel technology in the form of biological solutions to the growers is a central first step towards better and more balanced farming practices.”**



# Contributing to resilient farming practices

The world's population is expected to grow to almost 10 billion people by 2050. To meet the resulting food requirements, the global agricultural sector will need to increase its efficiency by 70%. We need innovative and sustainable solutions if we are to produce more food with a minimal environmental footprint.

requires in order to address the global productivity challenge presented by a growing population. By adding good bacteria - nature's own defense mechanism - to crops and the soil that supports them, we support the growers in performing more efficiently, which in some cases can increase crop yields by more than 10%. The good bacteria in our products protect and strengthen root systems and help plants to respond more robustly against harsh conditions, pests and diseases - all from the microbial mechanisms found in nature.

At Chr. Hansen, we believe that by promoting biological agricultural products, our natural Plant Health solutions can support long-term sustainable production practices, ensuring that the environment and agricultural sector can work together to meet future demands for food. Incorporating biological solutions into today's farming practices can enhance yields and protect the growers from increased abiotic stresses caused by a changing climate as well as pests and diseases - in a more environmental friendly way.

We believe that increasing the available solutions and bringing novel technology in the form of biological solutions to the growers is a central first step towards better and more balanced farming practices.

#### Supporting smallholder farms

We continue to support smallholder farmers in Kenya through our Danida-funded partnership with CARE Denmark, an NGO that works to strengthen the resilience of low-income communities in rural areas around the world. We use our natural plant solutions to promote sustainable agricultural practices and give farmers access to new technology that can improve their crop yields and subsequent profitability.

#### Addressing major challenges in agriculture with microbial solutions

Within our Plant Health business, we focus on bringing new technology and natural solutions to farmers, in order to increase crop output, reduce the environmental footprint of farming and improve working conditions.

At Chr. Hansen, our research on drivers of crop yield has deepened our understanding of which soil microbes naturally enhance crop resilience. Equipped with this knowledge, we have developed innovative microbial plant health solutions that can support more sustainable agricultural practices for farmers around the world.

Our natural solutions play an important role in the evolution we believe the agricultural sector

**10.4m** hectares

#### PROGRESS ON TARGET

Since base year 2015/16, 10.4m hectares of land have been treated with our natural agricultural solutions.



**THIS YEAR, WE WERE PROUD TO RECEIVE THE CARE AWARD**

“Chr. Hansen was awarded for its innovative and sustainable natural plant solutions, which have the power to create societal changes in some of the worlds' poorest areas.” — Rasmus Stuhr Jakobsen, General Secretary, CARE Denmark



# Improving health through great taste

At Chr. Hansen, we believe that good food has the power to transform lives. As a company that influences both the production of food and helps to shape the end product, we are committed to raising the bar on making healthy food available, appealing, and affordable within the marketplace.

As populations age, become more urbanized, and gain readier access to high-calorie foods, rates of non-communicable, or chronic diseases – including autoimmune, gastrointestinal and metabolic diseases – have increased as well.<sup>1</sup> According to the World Health Organization, these diseases were responsible for 70 percent of all deaths worldwide in 2017.<sup>2</sup> A healthy diet is not the only determinant of chronic disease outcomes, but we know it plays an important role.



“At Chr. Hansen, we believe that by making small changes to the daily choices available to consumers, we can have a big impact on the lives of the consumers.”

### Using good bacteria to reduce added sugar in yogurt

High levels of sugar consumption have been linked to major health issues, and consumption of sugar is considered one of the primary drivers of obesity.<sup>3</sup>

In response, governments, health organizations and businesses are establishing objectives to reduce sugar levels in food. Consumers are also becoming more concerned about avoiding added sugars, and more than 60% of American and European consumers monitor and limit their intake.<sup>4</sup>

One of Chr. Hansen’s newest innovations helps to address the problem of added sugar in food. This year, we launched Sweety® Y-1, a ground-breaking culture solution that can reduce the level of added sugar by 1 gram per 100 grams with no impact on taste. Using what is naturally available in milk, we have created a culture that allows a natural creation of sweetness.

Sweety® Y-1 is our fourth product with a documented health benefit that we have launched since 2015/16, bringing us closer to the target of launching six new products with health benefits by 2022.

### Probiotics – for your health

Understanding how the bacteria found in our digestive systems influence our overall health is a new frontier in medicine, and one that the scientific community is just beginning to explore in depth. While research is ongoing, studies already show a positive impact between documented probiotic strains and health benefits such as gastrointestinal health and immunity.

Some of this new research has demonstrated a positive impact that taking certain probiotics may have on reducing flu-like sickness, which



In April of this year, Chr. Hansen took the first steps toward creating the next generation of live biotherapeutic products, announcing a joint venture with Swiss-based company Lonza AG, a leading global pharma contract manufacturer. The joint venture, BacThera, seeks to pioneer and shape an emerging industry and enable customers to bring pharmaceutical-grade solutions for chronic diseases such as gastrointestinal diseases, skin disorders, obesity, diabetes, Parkinson autism and asthma. BacThera is a combination of the words bacteriology, therapeutic and era – clearly reflecting the company’s purpose to enable its customers to bring life-changing treatments to market. It marks the beginning of an important new chapter for Chr. Hansen, leveraging our expertise in producing bacteria and the research done in the human microbiome over the past five years. Now approved to start operations, BacThera is engaging with its first customers.

can include symptoms such as fever, sore throat and cough.

A new health economics study, sponsored by Chr. Hansen, shows that the intake of probiotics can help reduce the cost of flu-like sickness. In the US alone, taking probiotics can help reduce the number of sick days by more than 54 million days per year. The study shows the significant cost-saving potential in terms of fewer sick days, lost work days, visits to the doctor and prescriptions.

These results are promising and suggest that while more research is needed, understanding the power of strain-specific probiotics to support health is a major area of potential growth for us and for our industry peers.

At Chr. Hansen, we know that probiotics are only as beneficial as the bacteria that comprise them. Strains matter, and we own some of the world’s best-documented probiotic strains, which may have a beneficial impact on enhancing immune response, among other things.

### LIVING IN A WORLD OF MICROBES

Our very existence depends on good bacteria that help support our immune systems, clean our skin, and battle inflammation. We have more than 100 trillion bacteria, weighing between two and three kilograms, living in and on our bodies.



**“One of Chr. Hansen’s newest innovations helps to address the problem of added sugars in food.** This past year, we launched the culture Sweety® Y-1, the first patented culture that can reduce added sugar in yogurt. Only two months after its launch, Sweety® Y-1 won the World Innovation Award for best new dairy ingredient at the 2019 Global Dairy Congress in Lisbon.”



**FOOD WASTE THINK TANK**

Chr. Hansen is a member of the newly-established think tank on food waste under the Danish Ministry of Environment and Food. Its purpose is to develop solutions for reducing food waste, advise the Danish government and inspire other countries to learn from the successful practices that Denmark has put in place. We look forward to deepening our involvement and helping to set a global example through this collaboration.



# Reducing food waste with nature's own resources

The UN estimates that each year, one third of the food produced for consumption is lost or wasted in the journey from farm to fork<sup>5</sup>. Estimated at \$940 billion, this wasted food represents a significant loss of value that could not only be captured for profit, but could also help to feed the 815 million people worldwide who suffer from chronic undernourishment.



**30%**

Seven days of extra shelf life would have the potential to divert **440,000 tons (30%) of yogurt** from waste streams annually in the EU.

Within the European Union alone, over 29 million tons of dairy products are wasted each year. 80% of which expires somewhere in the value chain<sup>6</sup> or is otherwise thrown out because of the relatively short shelf life. Recent estimates place the carbon load of food waste at about 8% of all greenhouse gas emissions.

Until recently, Europe was the main driver of the global food waste agenda, with European consumers expressing a greater interest in contributing to a lower-waste consumption model. In recent years, however, we have also observed an increased demand for reducing food waste in markets in Asia, Latin America and the Middle East.

This challenge of food loss and waste represents a unique opportunity for industry leaders to make an impact and distinguish themselves through innovations that meet shifting consumer demands.

**Working with shelf life**

Building on the ancient traditions of fermentation, and relying on the newest scientific insights, Chr. Hansen uses good bacteria to slow or prevent the growth of bad bacteria in our food, helping to extend their shelf life and ensuring that more of what leaves the farm ends up on the table.

FreshQ<sup>®</sup>, some of Chr. Hansen's food cultures with bioprotective properties, can delay spoilage in fermented dairy products like yogurt, sour cream and cheese. With spoilage from yeasts and molds being one of most common barriers to shelf life extension, FreshQ<sup>®</sup> has the potential to significantly reduce waste in products to which it is added.

Reducing food waste in this manner represents a meaningful opportunity to reduce both CO<sub>2</sub> emissions and the amount of food wasted, even before making any modifications to lifestyle or consumption practices.

**Reducing food loss during production to get more out of milk**

As cheesemakers will know, ten kilograms of milk is required to make one kilogram of cheese. While consumers may be less familiar with specific ratios, they are increasingly aware that cheese



In order to stem food waste related to expiration dates, a number of industry players are starting to label their dairy products differently, adding "often good after" to their "best before" date. This is an important step toward helping consumers reduce food waste in their homes: not only does this updated labeling extend the shelf life of the product, it also enhances consumer awareness by reminding them to check the product before simply discarding it based on the date. Combining these activities of changing consumer behaviors with an actual improvement of quality and extension of shelf life, using solutions like food cultures, can have an even bigger positive impact on waste reduction.

has a significant carbon footprint. At Chr. Hansen, our innovations allow cheesemakers to get even more out of their milk, requiring less of it to produce the same amount of cheese. This increase in efficiency is better for cheesemakers, and it can be directly converted into lower CO<sub>2</sub> emissions. Our CHY-MAX<sup>®</sup> product series offer an increased cheese yield of 1% over other market-leading coagulants, or a reduction of 1,500 tons of CO<sub>2</sub> each year for an average producer of mozzarella cheese – equivalent to the yearly CO<sub>2</sub> emissions of 100 average Western European households.<sup>7</sup>



**HELPING LOCAL DAIRY FARMERS IN BOLIVIA CREATE ADDITIONAL INCOME AND REDUCE FOOD LOSS**

Chr. Hansen sponsors and offers practical support to the Danish NGO 'Dairy Without Borders' in projects within the dairy sector in selected developing countries. Chr. Hansen employees work closely with the milk farmers to help them process their surplus milk in order to create additional income and avoid loss. Last year, many Chr. Hansen employees donated their company Christmas gift to Dairy Without Borders. A total of 106,000 DKK was donated, representing the largest single donation the organization has ever received. We are proud of this work and grateful that our assistance, both financially and on-the-ground, allows the organization to increase its impact and contribute to local projects.

**580,000** tons of yogurt

**PROGRESS ON TARGET**  
Since base year 2015/16, we have reduced the waste of yogurt by 580,000t.



# A circular future

Shifting to renewable energy sources and transforming existing waste streams into valuable resources are priorities high on the global agenda. Climate change is currently the most pressing agenda to address, and we need to make serious leaps in establishing – and scaling – sustainable production and consumption models if we are to limit the Earth’s temperature increase to the global goal of 1.5 degrees Celsius.

As a producer of natural ingredients, we work hard every day to reduce the environmental footprint from our own production around the world. We have ambitious targets and projects in place to reduce our footprint related to water, energy, CO<sub>2</sub> and waste handling.

**Partnering for renewable energy**

This year, Chr. Hansen took the first and biggest step toward shifting from our reliance on fossil fuels to renewable energy sources, pledging to have 100% of our electricity use in Denmark powered by green sources. Through a Power Purchase Agreement with the Danish organization Better Energy, dedicated to helping businesses become carbon-neutral, we initiated the critical journey to align our own footprint with a more sustainable model. The electricity we use for our Danish operations will come from two new solar parks, established by Better Energy.

As part of the partnership, Energy Denmark will be responsible for matching this energy production with Chr. Hansen’s consumption and handle the difference that will always exist when the sun does not shine. In that way Chr. Hansen’s energy supply will be secured from a mix of several other renewable sources like wind and biogas in a balanced manner.

Chr. Hansen’s commitment to purchase solar power from the two new farms on a 10-year horizon adds to the creation of new renewable energy capacity in Denmark and contributes to accelerating the transition to green energy in the entire country. The project is scalable and can be expanded to our global sites going forward.

**Upcycling resources for new energy sources and innovative products**

We are committed to continuously searching for new ways to upcycle and transform resources to minimize our environmental footprint. Upcycling resources also represents a new frontier of business opportunities, and we are exploring ways to utilize existing waste streams as input for new product development.

Our Natural Colors division has been incorporating circular consumption methods into their processes for several years, including producing beautiful natural anthocyanin colors from grape skins discarded from wine production. After the color has been extracted through a partnership between Chr. Hansen and our local partner, the biproducts continue in a circular economy loop where the skins are transformed into biogas and fertilizer, that is used in the fields.



We apply the same thinking in our own production where most of the waste is used to produce biogas or fertilizers. Looking ahead, we will continue to explore new ways to scale and standardize waste streams.

**Optimizing transportation**

Our approach to production – One Plant, Many Locations – seeks to adopt a common operations

approach across our facilities worldwide. As part of this strategy, we focus on reducing transportation emissions by minimizing distances between production sites and our customers.

We report annually on our scope 3 CO<sub>2</sub> emissions from downstream transportation. An ongoing project works to map and optimize emissions from the transportation of end products to customers.



**“Our Natural Colors division has been incorporating circular consumption methods into their processes for several years, including producing beautiful natural anthocyanin colors from grape skins discarded from wine production.”**

**PERFORMANCE 2018/19**

26.5% CO<sub>2</sub> efficiency improvement since base year 2013/14. Reaching the 2022 target of 25% efficiency improvement.



# Investing in our future by investing in our people

At Chr. Hansen, we believe that an investment in our workforce is an investment in our future. By cultivating an atmosphere where employees feel safe, cared for, and encouraged to grow and innovate, we are able to attract high performers from diverse backgrounds and ensure our future remains in capable hands.

locations, Chr. Hansen works on a range of parameters to help raise the bar, for example by focusing on unconscious bias and developing engaging and inspiring leaders.

Diversity metrics are also included in the corporate leadership team's remuneration, reflecting the degree to which it represents a strategic objective.

#### Developing our employees to meet future challenges

At Chr. Hansen, we strive to provide employees with opportunities to develop, connect, and seek new challenges. We believe that developing our people in this manner not only encourages the retention of top talent, but it ensures our own strength as a company in the long term. We have several avenues through which we offer professional development opportunities, including mandatory performance development interviews (PDIs), mentorship programs, and even a quarterly Young Employees Network event at our headquarters, where younger employees have a chance to develop their own networks in a non-formal and convivial setting.

We are particularly proud of CONNECT, our global leadership development program, which invites company leaders on an off-site retreat that seeks to develop a deeper understanding of self and fellow colleagues. After the launch of CONNECT last year, we have now implemented an updated version of the program for all people managers. Participation in the program tripled, and 470 leaders have now completed it.

#### Maintaining our excellent safety record and identifying areas for improvement

Creating a working environment where safe practices are the norm relies on a combination of robust management systems, behavior-based training and consistent and clear communication. At Chr. Hansen, this has been a focus for several years, and our efforts are paying off. We are proud to report a Lost Time Incident Frequency (LTIF) of 1.32 in 2018/19, the lowest ever recorded in the history of Chr. Hansen. This is a very satisfactory performance and it keeps us on track towards our 2022 target. We will continue to monitor progress and performance at production sites and ensure that we communicate clearly about expected behavior throughout the organization, in order to ensure the wellbeing of every Chr. Hansen employee.

#### Building an inclusive culture for a diverse workforce

As a company driven by science and innovation, our future relies on our ability to generate ideas, create solutions, and approach problems in new ways. To achieve this, we need a workforce of employees with diverse socio-economic backgrounds, experiences and points of view. We strive to develop a diverse workforce and an engaged, innovative and open-minded culture, where each employee's unique differences are not only acknowledged and encouraged, but where they add value and make our organization stronger.

While we are proud of the diversity of our workforce today, we acknowledge that we still have more work to do, primarily in terms of improving our gender diversity and developing more varied skillsets among teams of employees. Recognizing that diversity challenges are unique to teams and



**“We are proud to report a Lost Time Incident Frequency (LTIF) of 1.32 in 2018/19, the lowest ever recorded in the history of Chr. Hansen”**

#### BOARD OF DIRECTORS

The gender diversity of the Board of Directors in Chr. Hansen Holding remained stable. Similar to last year, the Board achieved equal gender representation as defined under Danish law<sup>9</sup>. The Board of Directors maintains the target of having at least three female board members elected by the shareholders by 2022, as well as a strong diversity of skills, experience and nationality.

Diversity on the boards of directors in other, Denmark-based Chr. Hansen companies was stable with equal gender representation as defined under Danish law.<sup>9</sup>

“As we operate across industries and geographical contexts where risks to business integrity may vary, **it is essential that we continue to set the bar high** and provide the education and training our employees deserve to ensure their contributions reflect our standards, as well as our values”



Leading with integrity:

# Doing well by doing good

It is critical to the success and sustainability of any company to act responsibly in society. The manner in which we conduct business around the world, source materials, and ship products to market, not only affects our success and subsequent stakeholder satisfaction, but also reflects the kind of company we are.

#### Promoting business integrity

Conducting business transparently and ethically is not just the right thing to do. According to the OECD, having ethical business practices saves a company money and helps support local economies. Indeed, the World Economic Forum estimates that corruption increases the average cost of doing business by up to 10%.<sup>10</sup>

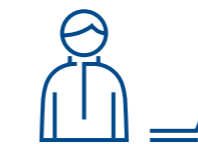
At Chr. Hansen, we are committed to ensuring that the business we conduct worldwide is fair, transparent and ethical. As we operate across industries and geographical contexts where risks to business integrity may vary, it is essential that we continue to set the bar high and provide the education and training our employees deserve to ensure their contributions reflect our standards, as well as our values.

We require that 100% of relevant employees complete mandatory online training on anti-corruption and antitrust. We supplement the e-learning with in-person training across regions.

This year, eight cases were reported through the whistleblower hotline across the regions, relating to financial and business integrity, employee safety and employee matters. All cases are thoroughly investigated and when needed, action is taken. We continue to encourage employees and external stakeholders to raise any concerns and report incidents that may arise, either through the whistleblower hotline or directly with their local office management.

#### Sourcing responsibly

Chr. Hansen buys a variety of materials directly from our global supplier base. Whether providing us with pigments for our color production or with packaging material for our cultures, all suppliers must be approved before conducting business with Chr. Hansen.



## 100%

Of relevant employees completed mandatory online training on anti-corruption and antitrust.



#### SUPPORTING THE UN GUIDING PRINCIPLES FOR BUSINESS AND HUMAN RIGHTS

Whether it concerns our own employees, our suppliers or the communities in which we operate, we respect human rights and support the UN Guiding Principles on Business and Human Rights. From our annual human rights due diligence, we know that the main risks are found in our supply chain of raw agricultural material due to the inherent social and environmental risks of the industry and geographical context. We strive to mitigate this through our responsible sourcing program.

Approval is granted only when suppliers comply fully with our Supplier Requirements, which include standards for food safety, quality, and sustainability.

Last year, we updated our Supplier Requirements for Sustainability, which have been integrated into all existing contracts and form part of our standard business terms for all new suppliers.

Over the past year, we have placed greater emphasis on training our internal quality auditors to spot sustainability violations among our suppliers, in order to ensure that the highest environmental and labor standards are upheld throughout our supply chain.

Chr. Hansen is a proud member of SEDEX, one of the world's largest collaborative platforms for sharing responsible sourcing data throughout supply chains. This partnership enables us to share information about our audit results and overall performance with our customers, enhancing transparency and streamlining communication. This year four external SMETA (Sedex Member Ethical Trade Audits) were performed: At the Copenhagen Culture and Color site, in Canossa, Italy and Lima, Peru.



# 72m EUR

We paid a total of EUR 72.3m in taxes globally during our 2018-2019 financial year.

#### Transparent tax reporting

Transparent tax practices are central to ensuring corporate fiscal accountability and responsible business practices in all countries we operate in. Although we pursue competitive tax levels in each jurisdiction of operation, this never compromises the requirement – or our commitment – to comply with local tax regulations and international transfer pricing principles. Our position on tax guides the tax payments and setup. Each year we submit our country-by-country report to the Danish tax authorities as required.



**“We document our sustainability performance and management approach externally against global reporting platforms such as SEDEX, EcoVadis, FTSE, OEKOM, Sustainability and the Carbon Disclosure Project.”**



## Key figures

# Performance\*

COMMERCIAL PERFORMANCE	2018/19	2017/18	2016/17	2015/16	2014/15
<b>Revenue contribution to the UN Global Goals</b>					
Gross revenue contribution, %	82	82	81	-	-
<b>Better farming</b>					
Farmland treated with natural solutions, ha.	3.7m	3.2m	1.3m	2.2m	-
Accumulated ha. (since base year 2015/16)	10.4m	6.7m	3.5m	2.2m	-
<b>Good health</b>					
Products with a documented health effect, no.	1	1	1	1	-
Accumulated no. of products (since base year 2015/16)	4	3	2	1	-
<b>Food waste</b>					
Yogurt waste reduction, tons	180,000	170,000	130,000	100,000	-
Accumulated tons (since base year 2015/16)	580,000	400,000	230,000	100,000	-
<b>ENVIRONMENTAL PERFORMANCE</b>	<b>2018/19</b>	2017/18	2016/17	2015/16	2014/15
<b>Energy</b>					
Total energy consumption, MWh	205,691	201,313	186,152	171,671	167,619
Energy efficiency, relative to base year 2013/14, %	10.8	9	7	-	-
<b>Water</b>					
Total water consumption, m <sup>3</sup>	1,490,702	1,505,165	1,309,398	1,181,699	1,133,743
Water efficiency, relative to base year 2013/14, %	6.5	6	5	-	-
<b>CO<sub>2</sub> footprint</b>					
Total Scope 1 CO <sub>2</sub> e emitted, tons	25,881	25,052	25,465	24,222	25,403
Total Scope 2 CO <sub>2</sub> e emitted, tons	23,558	22,932	21,214	21,859	20,361
Total Scope 3 CO <sub>2</sub> e emitted, tons	90,354	87,877	88,14	63,255	62,255
Total CO <sub>2</sub> e emitted, tons	139,793	138,631	136,624	109,538	109,428
Total CO <sub>2</sub> efficiency, relative to base year 2013/14 (Scopes 1+ 2), %	26.5	26.1	19.5	-	-
<b>Waste</b>					
Recycled biomass, tons	103,527	99,337	90,009	82,680	76,474
Recycled solid waste, %	45.5	42	33	23	20
Solid waste, tons	4,720	4,418	3,974	3,176	3,103
Hazardous waste, % of solid waste	1	1	1	1	1
Wastewater, m <sup>3</sup>	1,150,330	1,113,337	884,523	839,117	832,664
<b>Environmental violations</b>					
Environmental violations, no.	2	2	0	3	4

\* Accounting policies for the KPIs are available at [https://www.chr-hansen.com/\\_/media/files/chrhansen/home/sustainability/reporting-and-disclosure/chr-hansen-sustainability-accounting-principles.pdf](https://www.chr-hansen.com/_/media/files/chrhansen/home/sustainability/reporting-and-disclosure/chr-hansen-sustainability-accounting-principles.pdf)

LEADING WITH INTEGRITY	2018/19	2017/18	2016/17	2015/16	2014/15
<b>Participation rate in anti-corruption training, %</b>	100	99	100	100	94
<b>INVESTING IN OUR PEOPLE</b>	<b>2018/19</b>	2017/18	2016/17	2015/16	2014/15
<b>People statistics</b>					
Total number of employees	3,619	3,304	3,111	2,852	2,651
Average number of employees (full-time equivalents)	3,420	3,151	2,940	2,708	2,573
Employee turnover, %	10	12	12	10	12
Rate of absence, %	2	2	2	2	2
<b>Diversity and inclusion</b>					
Gender - all employees (m/f), %	57/43	58/42	58/42	58/42	58/42
Gender - managers (m/f), %	61/39	61/39	61/39	61/39	64/36
Gender - Directors+ level (m/f), %	75/25	78/22	78/22	78/22	82/18
Nationality - Directors+ level (Danish/non-Danish), %	57/43	54/46	57/43	59/41	63/37
Diverse teams, %	83	78	66	69	77
Board of Directors (m/f/non-local), %*	71/29/57	71/29/57	71/29/71	71/29/57	71/29/57
<b>Occupational health and safety</b>					
Lost Time Incidents (LTIs)	8	14	13	19	16
Frequency of LTIs per million working hour (LTIF)	1.32	2.46	2.50	4.00	3.52
Severity (days away per LTI)	26	9	5	10	28
Fatalities	-	-	-	-	-

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

# Key figures explained

## COMMERCIAL PERFORMANCE

### Revenue contribution

The percentage of our revenue that stems from products contributing to the UN Global Goals remained at 82% in 2018/19.

### Better farming

During the year, 3.7m hectares of farmland was treated with our natural solutions: plant protection and silage inoculants. Since base year 2015/16, the natural solutions have been applied at a total of 10.4m hectare leaving us on track to meet the 2025 target of covering 25m hectares.

### Good health

This year, we launched Sweety® a culture that can reduce the amount of added sugar in yogurt. This brings us to a total of four products with a documented health effect launched since the base year, leaving us on track to reach the target of launching six products by 2022. Previous product launches were Nola®Fit for reduction of lactose and sugar levels in yogurt, Cocofresh a solution for plant-based yogurts with the probiotic BB-12®, and ProKids, a solution for a kids' drinking yogurt containing the probiotic strain LGG®.

### Less waste

Through the application of our cultures with bioprotective effect, this year we reduced global yogurt waste by 180,000 tons. Since base year 2015/16, we have helped reduce a total of 580,000 tons of yogurt waste, leaving us well on track to meet the 2022 target of reducing 1.2 million tons of yogurt waste.

## ENVIRONMENTAL PERFORMANCE

### Energy

Energy efficiency improved by 1.8% points to 10.8%, driven mainly by increased scalability and improved production processes in some of our production sites.

### Water

Water efficiency improved by 0.5% points to 6.5%. Several projects are focusing on improving water recycling and efficiency across all production sites.

### CO<sub>2</sub>

This year, we surpassed our 2022 target of a 25% improvement in CO<sub>2</sub> efficiency, achieving a rate of improvement of 26.5%. To make the figures more

accurate, this year the CO<sub>2</sub> emission factors for scope 1 and 2 were updated and consequently the KPI performance was recalculated from the base year 2013/14.

There was a slight increase in the scope 3 emissions from downstream transportation due to increased sales and shipment of products.

### Solid waste

The KPI improved by 4% points to 46%, exceeding the target of recycling 40% of solid waste. This continuous improvement is driven by a global initiative focusing on moving "from waste to resource", which has improved waste handling and reporting on waste.

### Environmental violations

This year, two environmental violations were reported. One related to an eluates spill in France. The content of the spill was 95% water creating a negligible impact on the natural environment. A report has been filed to the authorities. The other was from Peru regarding waste water threshold limits. The violation has been investigated and we are working on implementing corrective actions.

## LEADING WITH INTEGRITY

100% completion rate for relevant employees taking anti-corruption training.

## INVESTING IN OUR PEOPLE

### Diversity and inclusion

The diversity figures developed positively during the year. We exceeded our target of having 80% diverse corporate management teams by reaching 83%. The number of women at Directors+ level increased by 3% points to 25% bringing us closer to the target of 30%, whereas the number of non-Danes at the same level decreased by 3% points to 43%.

The composition of the Board of Directors remained the same. This year, Dominique Reiniche was appointed Chairman of the Board – being the first woman to do so in a Danish top-listed company.

### Occupational health and safety

This year we had the lowest Lost Time Incidents Frequency ever at 1.32. The severity, days away per LTI, however, increased from 9 to 26 days due to two LTIs with respectively 60 and 90 days away.


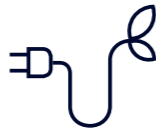

# Legal requirements

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

SECTION 99A REFERENCE	READER'S GUIDE
<b>Sustainability definition</b> Section 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.
<b>Business model</b> Section 99a (2) (1)	See "Leading towards a more sustainable food system" on page 5.
<b>Governance</b> Section 99a (2) (2)	See "Sustainability governance" on page 32.
<b>Systems and "due diligence processes"</b> Section 99a (2) (3)	See "Systems and due diligence processes" in the overview section on page 30.
<b>Key risks</b> Section 99a (2) (4)	A description of the key risks has been integrated into each of the relevant chapters. See pages 18-24.
<b>KPIs</b> Section 99a (2) (5)	See long-term goals in the overview sections on pages 8-9 and a five-year progress report under "Key figures" on pages 26-27.
<b>Results</b> Section 99a (2) (6)	See "Progress on targets" and "Strategy highlights" in the overview sections on pages 8-9, a detailed description in the relevant chapters, and performance in each area under "Key figures" and "Key figures explained" on pages 26-28.
<b>Means of reporting</b> Section 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="https://www.chr-hansen.com/en/sustainability/reporting-and-rankings/reporting-and-disclosure">https://www.chr-hansen.com/en/sustainability/reporting-and-rankings/reporting-and-disclosure</a>

SECTION 99B REFERENCE	READER'S GUIDE
<b>Policy for increasing the share of the underrepresented gender</b> Section 99b ((2)	A description of the policy for increasing the share of the underrepresented gender at other management levels, how this is put into actions and an assessment of the achieved results can be found on pages 21 and 30.
<b>Target figure for the supreme management body</b> Section 99b (3)	Status and target for the underrepresented gender in the supreme management body on page 21.

# Policies and systems

	 <b>Workplace Responsibility</b>	 <b>Climate and Environment</b>	 <b>Leading with integrity</b>
<b>Policies &amp; Positions</b>	Diversity policy People, Knowledge & Organization Policy Position on Health and Safety	Sustainability position	Business integrity policy Anticorruption position Supplier requirements for sustainability Sustainability position
<b>Systems and due diligence processes</b>	Global safety assessments and minimum requirements Global leadership development program, CONNECT	Environmental and energy assessment GO GREEN project organization ISO 14001 certification (8 sites) and ISO 50001 certification (2 sites)	Mandatory e-learning Third party due diligence process Vendor management system Human rights due diligence SMETA audits

# Sustainability priorities

Materiality is the foundation of our efforts within sustainability, whether it relates to our own operations or our product impact. Each focus area is defined, managed and reported on based on its relevance, risk and opportunity for our specific business.

Below is an overview of the central areas of our sustainability work.

 <b>Better farming</b>	 <b>Good health</b>	 <b>Less waste</b>
We help feed the growing population by promoting sustainable agriculture.	We improve global health through healthier and more safe products.	We help customers reduce food waste and improve yields and productivity.
		
 <b>Climate and Environment</b>	 <b>Workplace Responsibility</b>	 <b>Leading with integrity</b>
We work to reduce and improve our environmental footprint in terms of energy, water, CO <sub>2</sub> and waste.	We strive to create a safe workplace valuing diversity of thought of our employees and our partners.	We conduct business on ethical terms, we respect human rights and we work to ensure responsible sourcing practices.
		



# Governance Sustainability Board

## Purpose of the board

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



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

# Limited assurance statement

Independent practitioner's limited assurance report on the 2018/19 contribution of Chr. Hansen A/S to the UN Global Goals

## To the stakeholders of Chr. Hansen A/S

We have been engaged by Chr. Hansen A/S to obtain limited assurance on the Company's 2018/19 revenue contribution to the UN Sustainable Development Goals (SDGs no. 2, 3 and 12) as stated on page 26 in the 2018/19 Chr. Hansen A/S Sustainability Report. The impact on the SDG's of Chr. Hansen A/S products is consolidated in terms of percentage of gross revenue in support of the selected SDG's. Chr. Hansen A/S has mapped its entire product portfolio and concluded that 82% of its gross revenue has a positive impact on one or more of UN SDG's number 2, 3 and 12.

## Management's responsibility

Management is responsible for the defined methodology and applied criteria including reporting scope, assumptions and estimations made when defining and consolidating gross revenue for sold products with positive impact on one or more of the UN SDG's number 2, 3 and 12. The methodology and criteria applied appear from the Sustainability Accounting Principles on the Company's website [https://www.chr-hansen.com/\\_/media/files/chrhansen/home/sustainability/reporting-and-disclosure/chr-hansen-sustainability-accounting-principles.pdf](https://www.chr-hansen.com/_/media/files/chrhansen/home/sustainability/reporting-and-disclosure/chr-hansen-sustainability-accounting-principles.pdf). The Management of Chr. Hansen A/S is responsible for deciding on these suitable criteria, assumptions and estimations applied in the calculation and consolidation. Furthermore, Management is responsible for ensuring that the preparation of the statement is in accordance with the stated criteria and defined methodology. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation such that the information is free of material misstatements, whether due to fraud or error.

## Our independence and quality control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity,

objectivity, professional competence and due care, confidentiality and professional behavior.

PwC applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## Our responsibility

Our responsibility is, based on the procedures we have performed and the evidence we have obtained, to express a limited assurance conclusion on the Company's 2018/19 gross revenue contribution to the UN Sustainable Development Goals (SDG's no. 2, 3 and 12) as stated on page 26 in the 2018/19 Chr. Hansen A/S Sustainability Report. We conducted our limited assurance engagement in accordance with International Standards on Assurance Engagements 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information (ISAE 3000). The standard is issued by the International Auditing and Assurance Standards Board, and requires that we plan and perform this engagement to obtain limited assurance whether the subject matter is free from material misstatement. A multidisciplinary team including assurance practitioners and engineers have completed the engagement.

A limited assurance engagement undertaken in accordance with ISAE 3000 involves assessing the suitability in the circumstances of Chr. Hansen A/S and the use of defined criteria and methodology as the basis for the preparation of the the Company's 2018/19 gross revenue contribution to the UN Sustainable Development Goals (SDG's no. 2, 3 and 12). In addition, it involves assessing the risks of material misstatement whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation.

The procedures we performed were based on our professional judgment and comprised inquiries regarding preparation of product data sheets, assessment of calculations, assumptions and estimations, and assessment of underlying documentation. During our work, we have conducted interviews and shown meetings with key individuals at Chr. Hansen A/S responsible for sales and for preparation of product data sheets, product-specific data as well as for consolidation and calculations. We have assessed that consolidated gross revenue per product, taking into consideration customer discounts, and aligned with the audited net revenue in the 2018/19 Annual Report. In addition, during the interviews, we have assessed whether principles for selection and inclusion of products in the calculations are conservative in nature when considering impacts during use.

**Allan Knudsen**

State Authorised Public Accountant

**Limited review conclusion**

Based on our work, nothing has come to our attention causing us to believe that the Chr. Hansen A/S 2018/19 revenue contribution to the UN Sustainable Development Goals (SDG's no. 2, 3 and 12) as stated on page 26 in the 2018/19 Chr. Hansen A/S Sustainability Report has not been prepared, in all material respects, in accordance with the applied criteria and methodology as described in the Sustainability Accounting Principles [https://www.chr-hansen.com/\\_/media/files/chrhansen/home/sustainability/reporting-and-disclosure/chr-hansen-sustainability-accounting-principles.pdf](https://www.chr-hansen.com/_/media/files/chrhansen/home/sustainability/reporting-and-disclosure/chr-hansen-sustainability-accounting-principles.pdf).

Hellerup, October 10, 2019

**PricewaterhouseCoopers**

Statsautoriseret Revisionspartnerselskab

**Jens Pultz Pedersen**

M.Sc.(Eng.)

# Endnotes

- 1 World Health Organization, 2018 (<https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>)
- 2 Noncommunicable diseases. Progress monitor 2017, World Health Organization
- 3 Noncommunicable diseases. Progress monitor 2017, World Health Organization
- 4 New Nutrition Business, 2017 and Food Navigator, 2016
- 5 The Food Loss & Waste Protocol, <http://flwprotocol.org/>
- 6 Reducing food waste and losses in the fresh dairy supply chain. Chr. Hansen impact study <https://www.chr-hansen.com/en/sustainability/our-fight-against-food-waste>
- 7 <https://www.chr-hansen.com/en/sustainability/innovating-for-a-sustainable-future/helping-cheese-producers-get-more-out-of-milk>
- 8 See the Danish Business Authority's Guide on targets and policies for the gender composition of management at [www.erhvervsstyrelsen.dk](http://www.erhvervsstyrelsen.dk)
- 9 This applies to Chr. Hansen A/S and Chr. Hansen Natural Colors A/S
- 10 CleanGovBiz, OECD, 2014, <https://www.oecd.org/cleangovbiz/49693613.pdf>

