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- This presentation contains forward-looking statements that reflect management's current views with respect to certain future events and potential financial performance.
- Forward-looking statements are other than statements of historical facts. The words "believe," "expect," "anticipate," "intend," "estimate," "outlook," "will," "may," "continue," "should" and similar expressions identify forward-looking statements.
- Forward-looking statements include statements regarding: objectives, goals, strategies, outlook and growth prospects; future plans, events or performance and potential for future growth; liquidity, capital resources and capital expenditures; economic outlook and industry trends; developments of the Company's markets; the impact of regulatory initiatives; and the strength of competitors. The forward-looking statements in this presentation are based upon various assumptions, many of which are based, in turn, upon further assumptions, including without limitation, management's examination of historical operating trends, data contained in records and other data available from third parties.
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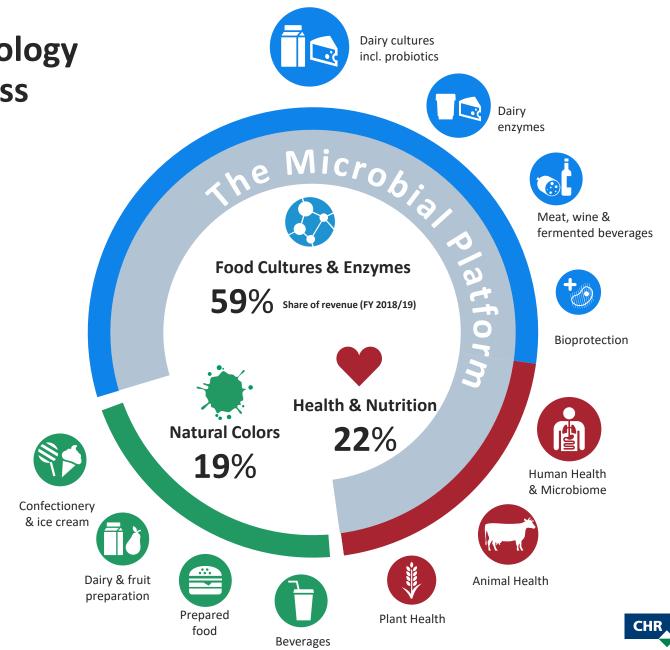
#### **BUSINESS OVERVIEW**

We are market and technology leaders in our core business



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

Together: The Microbial Platform.



#### **GLOBAL CHALLENGES**

## What is driving our daily business



>50%
increase in food production needed to feed 9.8bn people in 2050



>10%
global crops lost due to nematodes

~200 clinical trials ongoing in 'bugs as drugs' space



1/3 of food is wasted globally

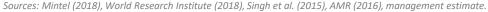




#1
cause of death by 2050 will be antibiotic resistance



>2/3
of global product launches are with natural colors or coloring foods





## 82% of our revenue contributes to the UN Global Goals

#### **Better farming**

We help feed the growing population by promoting sustainable agriculture

Expand reach of natural plant protection by 25m hectares (2025)



#### **Good health**

We improve global health through healthier, safer and more products

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



#### Less waste

We help customers reduce food waste and improve yield and productivity

Reduce global yogurt waste by 1.2m tons (2022)







#### **OUR PRODUCTS**

# We develop natural solutions that help to reduce sugar, ensure food safety, improve health, replace artificial ingredients and much more!



**Sweety**® reduces added sugar in yogurt by up to 20% without losing sweetness





Substitute artificial ingredients with our e-number free labeling coloring foodstuffs range **FRUITMAX**®

**QUARTZO®** and **PRESENCE®** are probiotic plant health solutions that help sugar cane and other crops fight off attacks from nematodes





With **CHY-MAX Supreme**® dairies can increase cheese output by up to 1% compared to the market leading coagulant

**LGG**® has been studied in +300 clinical studies that indicate that the strain may have beneficial effects on immune and gastrointestinal functions





#### **OUR PRODUCTS**

## We help make dairy farming more efficient!

An average dairy sources 300,000 tons milk to produce

- 20,000 tons cheese
- 100,000 tons yogurt.

Using Chr. Hansen's products can potentially reduce  $CO_2$  emissions equivalent to 2,000 average UK households.



MORE MILK using BOVAMINE®

13,200 tons more milk  $\approx$  20,000 tons CO<sub>2</sub>



MORE CHEESE using CHY-MAX®

2,000 tons less milk  $\approx$  3,000 tons CO<sub>2</sub>



MORE YOGURT using FRESHQ®

5,000 tons saved milk  $\approx$  7,500 tons CO<sub>2</sub>

Source: Grain and IOP Science 2017.



#### **STRATEGY**

## Our Nature's no.1 strategy: evolution since 2013 - now Sustainably





## FOCUS AREAS FOOD CULTURES & ENZYMES



## FOCUS AREAS HEALTH & NUTRITION



## Leverage the full potential

## Develop the microbial platform

## Create further value

## Drive penetration of new innovation

- Continue to prioritize core dairy business
- Develop adjuncts and adjacencies
- Drive Bioprotection lighthouse to EUR 200m by 2025
- Drive new products for Human Health (incl. Microbiome) and Animal Health
- Invest in Plant Health platform to unlock potential of EUR 100m by 2025
- Expand FruitMax® range of coloring foodstuffs

## Reinforce position in growth markets

- Further strengthen global market presence
- Application support in core adjacencies

- Human Health: Expansion into emerging markets and growth segments
- Strengthen route-to-market in Ag businesses
- Support US conversion and secure APAC growth

## Generate fuel for growth

- Drive scalability in supply chain
- Digitalize core processes

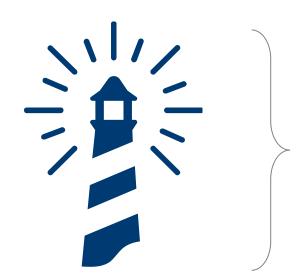
▶ Reinvest in future growth

 Continue drive to restore profitability



#### **STRATEGY**

# Our three lighthouses address challenges within food safety, agriculture and public health







#### **Bioprotection**

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

Designated as lighthouse in 2016





#### **Plant Health**

Bacterial cultures for crop protection – target of EUR 100m by 2025



#### **Human Microbiome**

Joint venture with Lonza in live biotherapeutic products (LBP) contract manufacturing

- EUR 150-200m market potential by 2025

Designated as lighthouse in 2013

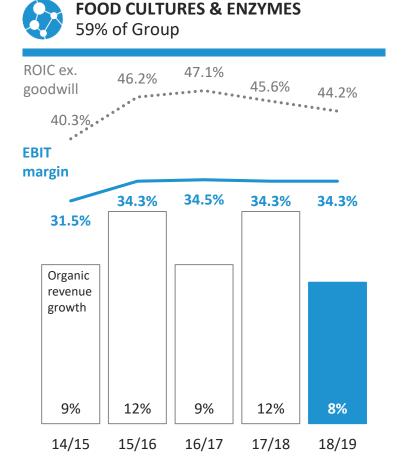
Designated as lighthouse in 2013

Potential revenue
of minimum
EUR 100m per year

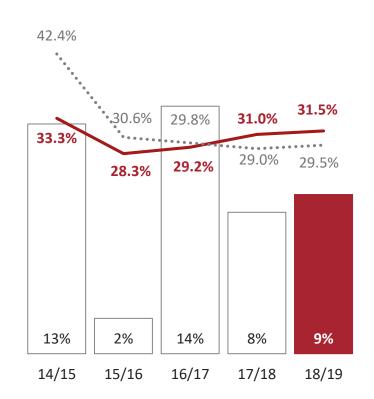


#### **FINANCIAL PERFORMANCE**

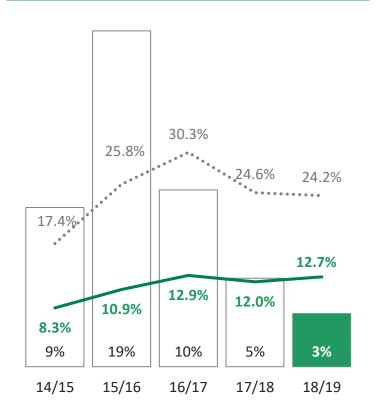
## Three complementary businesses







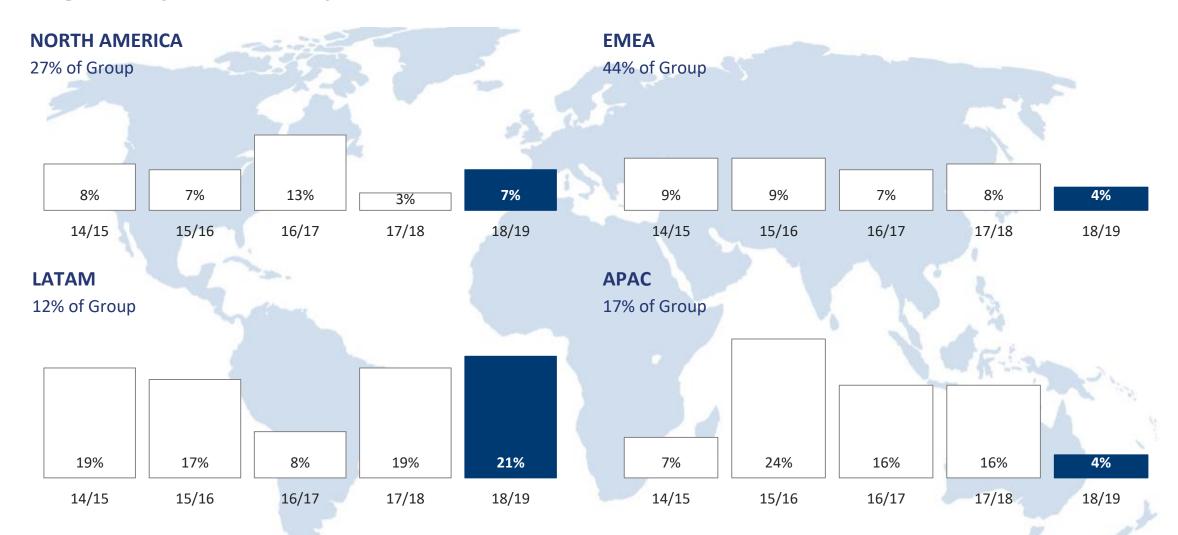






#### **FINANCIAL PERFORMANCE**

## Regionally balanced portfolio

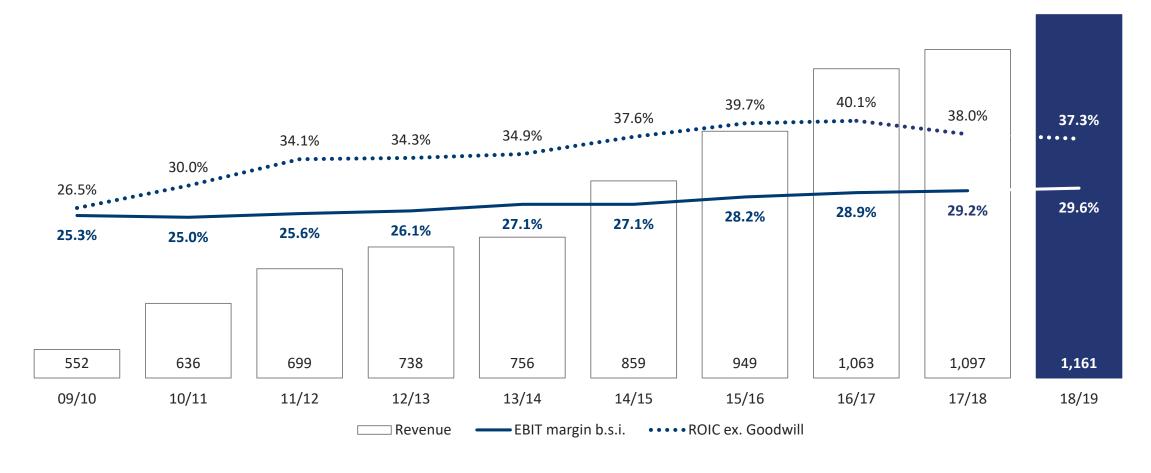




#### **FINANCIAL PERFORMANCE**

## Industry-leading organic growth at improving margins since IPO

Revenue, EUR m/EBIT margin and ROIC, %





## We will continue to pursue profitable growth through 2021/22





#### **CAPITAL ALLOCATION**

## Organic growth remains number one priority for Chr. Hansen

1

Reinvest for organic growth

- Capacity
- Innovation
- People

2

**Bolt-on Acquisitions** 

- Technology
- Market presence

3

Ordinary Dividend

▶ 40-60% of net income

4

Additional cash to shareholders

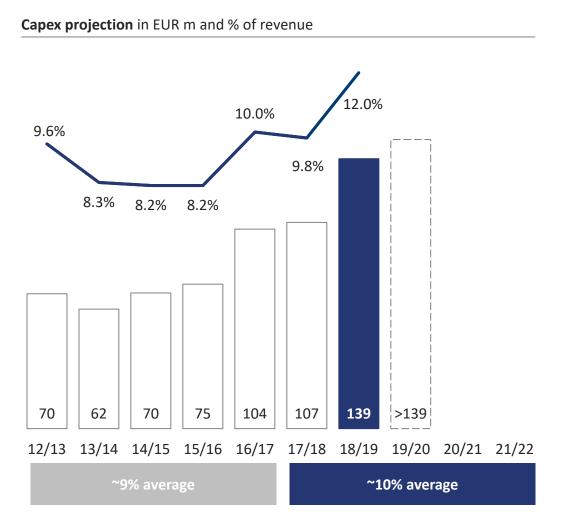
- Extraordinary dividend
- ▶ Share buy-back

Leverage consistent with a solid investment-grade credit profile (2018/19: 1.8x EBITDA)



#### **CAPEX**

## Investing into capacity expansions to support future growth



Selection of major investment projects	Expected year of completion
Freeze dried & powder packaging	20/21
Upgrade of R&D facility in Montpellier	19/20
Capacity expansion in Health & Nutrition	20/21
Consolidation of carmine plants in Peru	20/21
Innovation campus including new pilot plant   [partially financed by S&L)	20/21 – 22/23
Additional US capacity	21/22
Dairy expansion	Beyond 22/23
Natural Colors US footprint	Under review



## Our microbial 'powerhouse' supports 80% of the business







**Analytical Solutions** 

**Cultures Development** 





**Process Development**  **250**+ employees working in R&D (ex. application)

**Emerging Technologies** 



















#### **INNOVATION**

## R&D strategy fully aligned with Nature's no. 1 priorities

#### **R&D** focus areas



**Food Cultures** & Enzymes

- New platforms for dairy
- Grow the Bioprotection lighthouse
- Build basis for future growth by investments in adjacencies



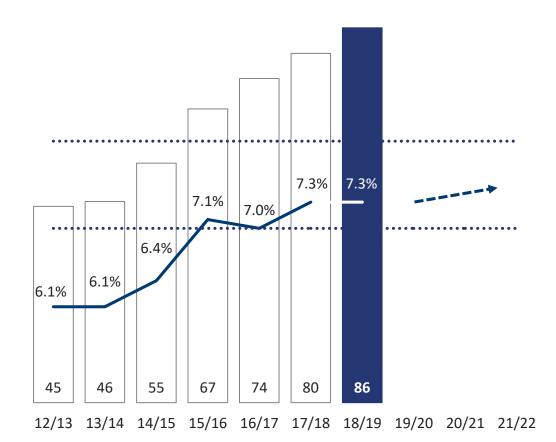
**Health & Nutrition** 

- Grow and strengthen the foundation for Animal & Human Health
- Grow the Plant Health lighthouse
- Succeed with the Human Microbiome lighthouse



- Deliver productivity improvements
- Enable first-time-right scale up of novel microbes
- Further build automation platform

**R&D** expenditure incl. capitalization in EUR m and % of revenue



#### **SUSTAINABILITY AMBITION**

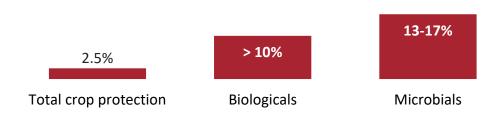
## **Enabling a resilient food system from farm to fork**





## Plant Health to unlock a potential of EUR 100m revenue by 2025

#### Market opportunity in crop protection, % growth (CAGR 2018-21)



#### >EUR 50bn total global crop protection sales

Penetration in %	≈5%	≈2%	

#### Focus crops, m hectares (MH) harvested in 2017



Source: Phillips McDougall, FaoStat, Markets&Markets.

#### **Ambitions of Plant Health**

- Today: On market primarily in South America (Brazil)
- 2019/20: Expansion in North America
- ▶ 2024/25: Presence in all major geographies
- Ramping up investments in capacity, discovery, and tech support



Unlocked potential by 2025



## Consumers and regulators are demanding natural solutions for livestock production

#### Antibiotic resistance is one of the main threats defined by the WHO

**Regulators & end consumers are** increasing pressure

We innovate and produce bacterial solutions for poultry, swine, cattle & silage

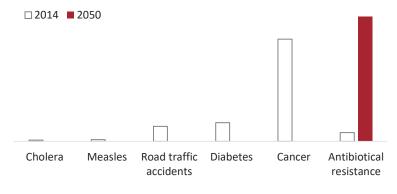
High levels of antibiotic resistance found worldwide, new data shows

News release

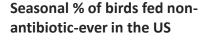
antibiotic resistance reveals high levels of resistance to a number of serious

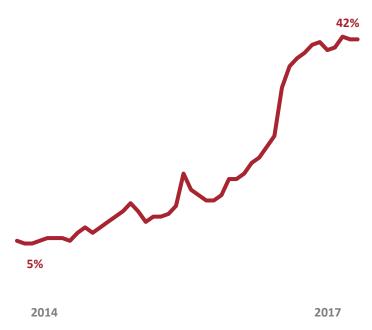
29 JANUARY 2018 | BANGKOK - WHO's first release of surveillance data on bacterial infections in both high- and low-income countries

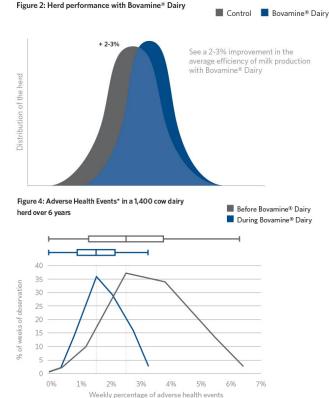
#### Deaths attributable to major causes annually (in m)



Source: AMR Review (2014).







Distribution of weekly percentage of cows with adverse health events. An average of 2.6% vs 1.5%, (p < 0.0001).

<sup>\*</sup> Includes deaths, metritis, pneumonia, and other miscellaneous non-metabolic illnesses.



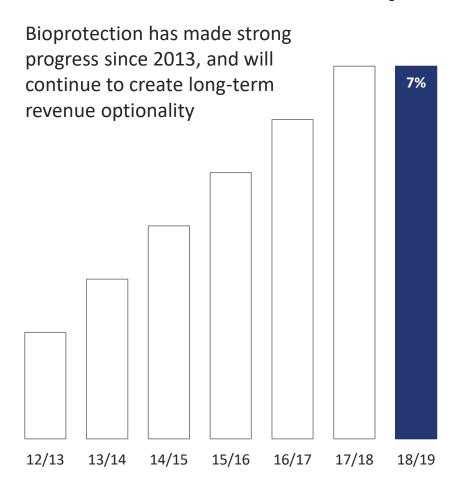


## Bioprotection allows manufacturers to naturally extend shelf life of fermented and non-fermented food products

targeting

Additional

Clostridium)







## LESS FOOD WASTE

## FreshQ® value proposition

FreshQ® extends shelf life of yogurt by 7 days

**30%**less yogurt
waste

~440,000 tons yogurt saved

ret saving to European economy

**~520,000** tons less CO<sub>2</sub>

## Informing consumers about food waste reduction **increases their purchasing intention**

Would you buy this yogurt with longer shelf live?<sup>1</sup>

#### **Group A**

- Seven days older
- Food waste info

#### **Group B:**

Seven days older

Yes 52%

No 48%

No 25%

#### **Value proposition**



#### **Manufacturers**



#### **Retailers**



#### Consumers

- Increase shelf life
- Clean up labels
- Protect brand & reputation
- Avoid reallocation costs and discounts
- Increase batch volume and frequency
- Sell more yogurt before expiry date
- Reduce waste levels > Savings from waste reductions will offset lost profit from reduced demand
- Enjoy more fresh yogurt
- Waste less and thereby save money

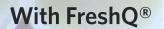
#### Information given to the consumers in Group A:

Help reduce food waste: Too much food is wasted. One of the most effective ways for us to help you reduce waste, is to improve the quality and shelf life. This yogurt can stay fresh a little longer, because we have used a new and better yogurt culture. There are of course no artificial ingredients. We all need to stand together to reduce food waste.

## Without FreshQ®







Yes 75%



<sup>&</sup>lt;sup>1</sup> Study commissioned by Chr. Hansen and carried out May 2018 with German consumers by independent sensory evaluations institute Inspe-ct.

#### SUPPORT HEALTHY GASTRO AND IMMUNE FUNCTIONS



## Industry-leading probiotics portfolio for dietary supplements and infant formula

#### Potential beneficial effects on immune and gastrointestinal function<sup>1</sup>

#### **LGG**®

- ▶ The world's best documented probiotic strain
- Used in food and dietary supplements since 1990
- ▶ Described in more than 1,000 scientific publications
- Studied in more than 300 clinical studies

#### **BB-12**®

- ▶ The world's best documented Bifidobacterium
- Used in food and dietary supplements since 1985
- Described in more than 307 scientific publications
- ▶ Studied in more than 180 clinical studies

#### May reduce respiratory tract challenges

May enhance the immune response

May alleviate symptoms of irritated skin

May reduce crying and fussiness in infants

May reduce the risk of an upset stomach

May enhance the immune response

May reduce respiratory tract challenges

May support bowel function

#### Hatakka et al. 2001, Hojsak et al. 2010a

de Vrese et al. 2005

Pärtty et al. 2013

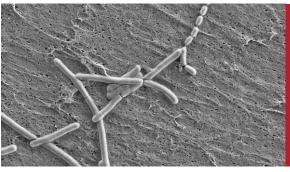
Isolauri et al. 2000

Chouraqui et al. 2004; Saavedra et al. 1994

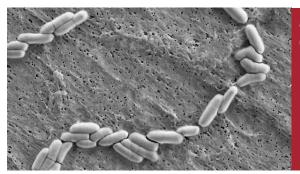
Holscher et al. 2012; Schiffrin et al. 1997

Smith et al. 2013; Taipale et al. 2011

Matsumoto et al. 2001; Pitkälä et al. 2007



Lactobacillus rhamnosus (LGG®)



Bifidobacterium (BB-12®)

Culture bank of +40,000 strains

#### 3 out of the 4

best documented strains in our library



<sup>&</sup>lt;sup>1</sup> Selection of scientific studies as per April 2017 (LGG®) and Feb 2016; for more details refer to Chr. Hansen website.



## Joint venture with Lonza to enable the next generation of bacteria-based drugs



## **Emerging** market

- +200 ongoing preclinical to phase III trials in different indication areas of which ~100 are relevant for JV
- ► USD1.6bn+ investments into microbiome companies (2005-2017)
- ► EUR 150-200m market potential for clinical supply by 2025; > EUR 1bn for clinical and commercial supply combined by 2035



#### **Perfect fit**

- ► Two leading players with strong execution track record
- Best-in-class complementary capabilities and unrivalled know-how in strict anaerobes



## Strong value proposition

- BacThera will be the first pharma contract manufacturer (CDMO) with full supply chain offering for LBP¹
- ► Large scale pharma- grade manufacturing capabilities
- ► Faster route-to-market



## Attractive risk-return profile

- Phased investment of EUR
   90m to be shared equally
   between the partners over 3
   years
- ► JV expected to be largely selffunding <u>after</u> production setup has been established



## Fully in line with strategy

- No changes to 2021/22 long-term financial ambition; Human Microbiome lighthouse no longer impacts Chr. Hansen's guiding metrics²
- Capacity to distribute excess cash to shareholders modestly reduced for the next 3 years

Merger control clearance received in Q4 2018/19

Next milestone: Completion of first phase investments to serve pre-clinical to phase II trials (Dec 2020 - Q1 FY21)



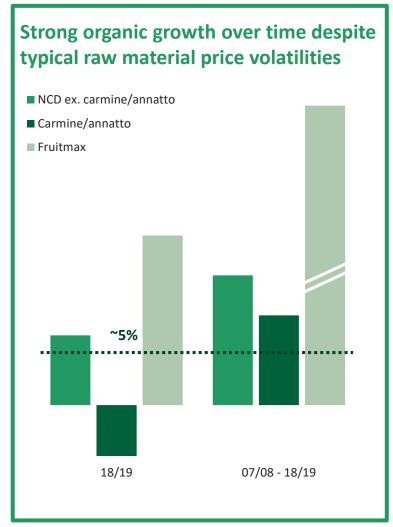
<sup>&</sup>lt;sup>1</sup> LBP = Live biotherapeutic products.

<sup>&</sup>lt;sup>2</sup> Chr. Hansen will account for the JV interest using the equity method in its consolidated financial statements.

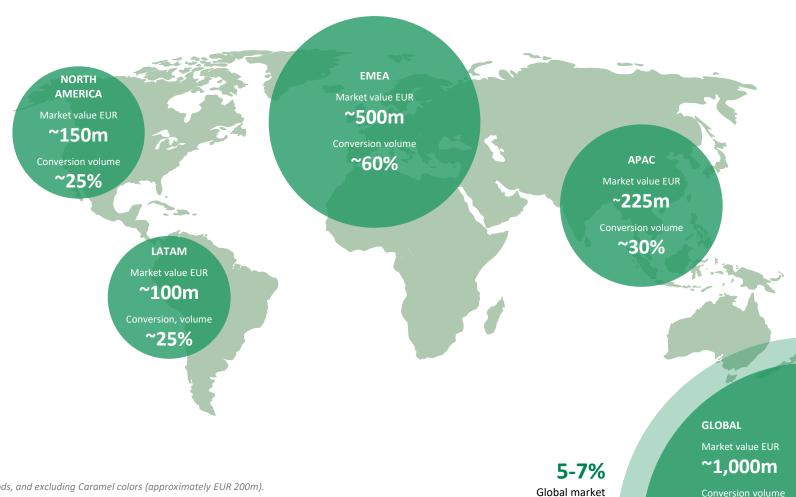




## Natural Colors driving conversion and clean label solutions



#### Conversion to natural colors and coloring foods comes in waves



growth

~35%

Source: Euromonitor and management estimates.

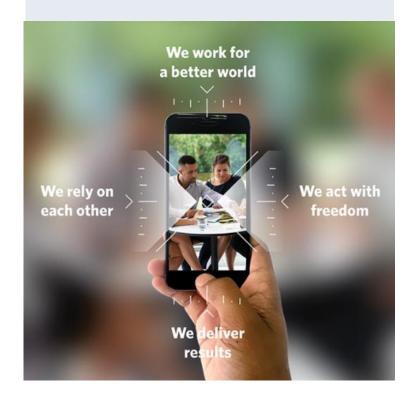
Note: Market value measured as Food & Beverages Natural Colors including Coloring Foods, and excluding Caramel colors (approximately EUR 200m).

#### **WORKPLACE RESPONSIBILITY**

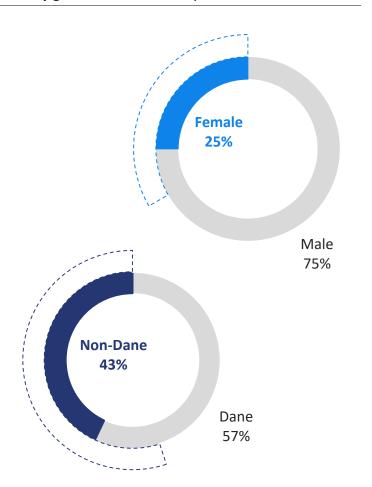
## Strong focus on culture articulation and talent management

#### Chr. Hansen culture model

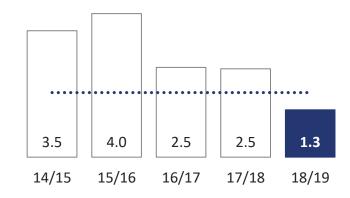
- ► Articulation of unique company culture to ensure shared understanding and safeguard values
- ► Four cultural drivers that guide ambition



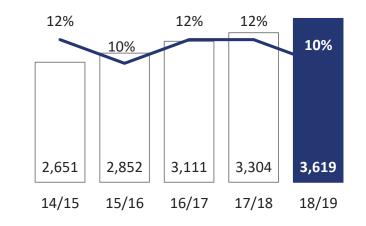
**Diversity** gender and nationality of Directors+



Work safety Frequency of LTI per million working hour

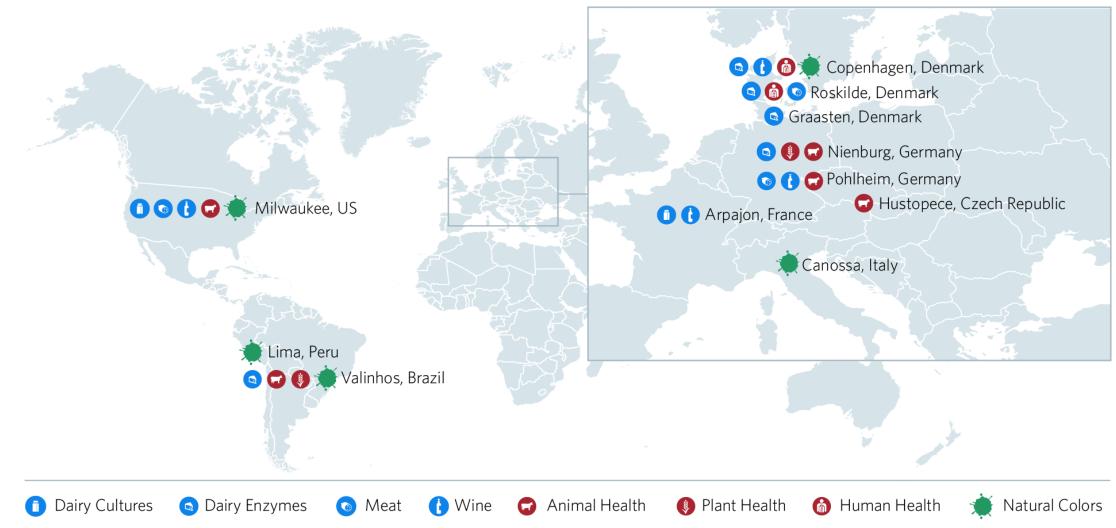


**Total employees** and turnover in %





## Global footprint with centralized production

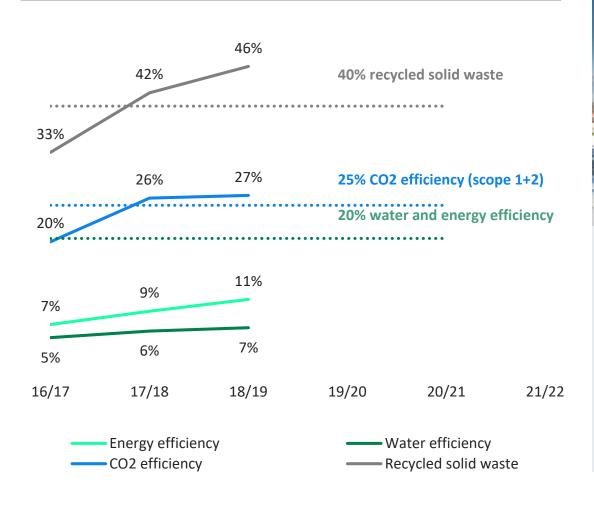




#### **CLIMATE AND ENVIRONMENT**

## Making progress on achieving our environmental targets

FY 2021/22 environmental targets and progress in % (base year 2013/14)





## 100% of Chr. Hansen Denmark's annual electricity usage covered by renewable energy

- ▶ 10-year Power Purchase Agreement (PPA) signed in September 2019
- ▶ Better Energy will establish and operate two new solar parks and sell produced energy at an agreed fixed price (completion: April 2020)
- ► Energy Denmark will match, on an hourly basis, Chr. Hansen's consumption pattern with the energy production from a mix of several renewable sources to ensure balance



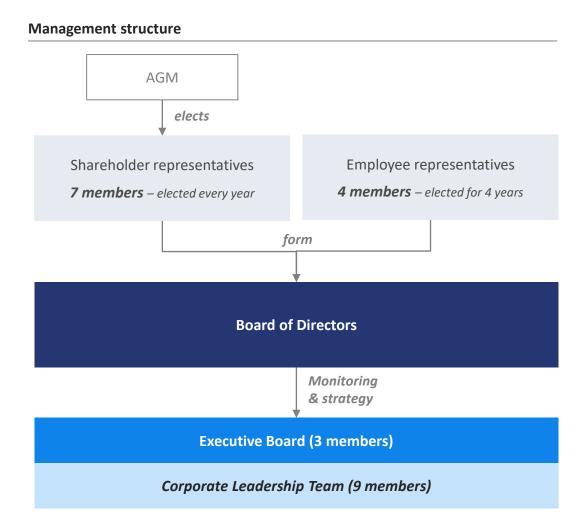
#### **GOVERNANCE**

## Dual management system with two independent bodies

- ▶ **Board of Directors** supervises the work of the Executive Board and is responsible for general strategic management
  - ▶ The Board of Directors currently has eleven members consisting of shareholder and employee representatives
  - ▶ Shareholder representatives serve for 1 year; at least half shall be independent according to the Danish Corporate Governance Codex
  - ▶ Employee representatives serve for 4 years (current term until 2021); the number of employee representatives is equal to half the number of shareholder-elected members
- ▶ **Executive Board** is in charge of day-to-day management (CEO, CFO and CSO)
  - ▶ Corporate Leadership Team assists Executive Board

#### Board of Directors statistics

11	64%	36%	36%
members	independent	Women	Non-Danish
		Diversity target:	
		3 female shareholder	
		representatives by 21/22	





# hareholder representatives on

## Diverse mix of competencies and experience in Board of Directors

Name	YoB	Nationality	Independent?	BoD since	Audit Committee	Nomination Comittee	Remuneration Committee	Scientific Committee	Board competencies	Other Board positions (selected)
<b>Dominique Reiniche – Chair</b> Professional board member	'55	F	Yes	'13	Χ	С	С		Experience in food, beverage and beauty industries; 22 years in senior leadership positions at French and European levels, including CEO at Coca-Cola.	Eurostar EIL, PayPal Luxemb., Mondi, Severn Trent
Jesper Brandgaard – Vice Chair President of Novo Nordisk Haemophilia Foundation Council	'63	DK	Yes	'17	Х	Х			Experience from group management in a multinational pharmaceutical company, including responsibility for strategy development and implementation, legal affairs and patents, IT and IR	William Demant, Vækst Partner Kapital
<b>Luis Cantarell</b> Professional board member	'52	ES/ CH	Yes	'16				С	Professional global experience within the food and beverage industry; over 10 years of leadership experience with the Nestlé.	Froneri, Kintai Therapeutics, Werfen, URIACH
<b>Heidi Kleinbach-Sauter</b> Professional board member	'56	DE/ US	Yes	'17			Х	Х	More than 25 years of innovation and R&D experience in the CPG industry globally; former Senior VP Global R&D of PepsiCo. Founding Chair of several councils, experience as a member of the Advisory Committee of Northern Seed Montana LCC, US.	
<b>Niels Peder Nielsen</b> Deputy-CEO Novo Nordisk Fonden	'65	DK	Yes	'18				Х	Former partner of consulting firms Bain & Company and McKinsey, broad industry expertise including healthcare and biological solutions; experience in digital strategy and business development.	BioInnovation Institute, Danish Venture Capital Association
Kristian Villumsen CEO, Coloplast	'70	DK	Yes	'14	Х	Х			Extensive knowledge of the medical and life science industry; solid international experience in both European and emerging markets.	
Mark Wilson Professional board member	'52	UK	Yes	'10	С		Х		International CEO/MD with over 40 years in FMCG companies and service/B2B industries in Asian, South American, UK, Irish and international markets. Financial and accounting experience.	CHR HANSEN

#### **GOVERNANCE**

## **Committees established in line with Danish Corporate Governance Codex**

#### **Audit Committee**

Assist in fulfilling its responsibilities in the financial reporting process, the system of internal controls, the audit process and monitoring compliance with laws, regulations, internal policies and positions, including considering the independence of the external auditor and reviewing the interim financial reports.

Mark Wilson (Chair)
Dominique Reiniche
Jesper Brandgaard
Kristian Villumsen

#### **Remuneration Committee**

Assist in fulfilling its responsibilities in regard to establishing, implementing and executing its remuneration position for the members of the Board of Directors and the Executive Board; preparation of a general remuneration policy for the Company.

Dominique Reiniche (Chair) Heidi Kleinbach-Sauter Mark Wilson

#### **Scientific Committee**

Assist in fulfilling its responsibilities with respect to the Company's R&D activities and ensuring that the Board of Directors has an informed, independent view of the focus and direction of the R&D function's work and capabilities.

Luis Cantarell (Chair) Heidi Kleinbach-Sauter Niels Peder Nielsen

#### **Nomination Committee**

Assist in fulfilling its responsibilities with respect to the nomination and appointment of members of the Board of Directors and the Executive Board.

Dominique Reiniche (Chair) Jesper Brandgaard Kristian Villumsen



#### **EXECUTIVE COMPENSATION**

## Closely aligned to key metrics and with strong incentive component

**SHORT TERM** 

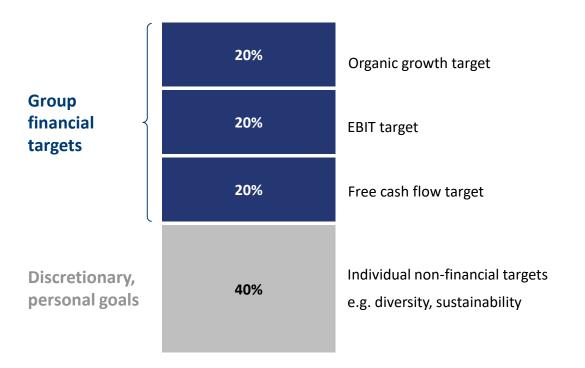
#### **Annual incentive program for CEO and CFO**

- ▶ Based on group financial targets and discretionary, personal goals
- ▶ Bonus is paid as 1/3 of the payout in Restricted Stock Units, and 2/3 in cash; normally accounts for 25-30% of total remuneration package

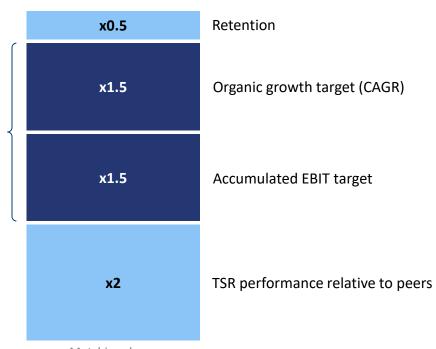
LONG TERM

#### **Progressive three-year incentive program**

- Requires personal investment in Chr. Hansen shares to participate
- ▶ Grant value estimated (based on Black-Scholes) at 20-25% of the remuneration package



Group financial targets











#### **RATINGS & AWARDS**

## We strive to continuously improve our sustainability efforts and reporting

Rankings & awards	Rank	Description
Corporate Anights The Magazine for Clean Capitalism	No. 1	Ranked World's Most Sustainable Company in 2019
CHANGE THE WORLD 2018	No. 18	Ranked no. 18 (out of 52) on Forbes' Change The World list 2019
MSCI 🌐	AA	Top 14% in industry
SUSTAINALYTICS	5 <sup>th</sup> of 132	Ranked in the top 5th / 132 in industry – "Leader"
**CDP	D	▶ Top half of industry
oekom	С	Best ESG scores amongst sector peers
ecovadis	Top 5%	Ranked in the top 5% performers on Eco Vadis
FTSE4Good	✓	Chr. Hansen listed as a constituent



## 5-step methodology & results with limited assurance by PwC

