

The background of the slide features a close-up photograph of several blue flowers, possibly hydrangeas, with delicate petals and visible centers. The flowers are set against a dark, almost black, background, which makes the blue color stand out. The lighting is soft, highlighting the texture of the petals.

# Chr. Hansen Q2 2022/23

Investor presentation

April 13, 2023

CHR HANSEN

*Improving food & health*



## Safe harbor statement

This presentation contains forward-looking statements that reflect management's current views and expectations with respect to Chr. Hansen's future and potential financial performance.

Those forward-looking statements are based upon data and information currently available to the company, and on a variety of assumptions, many of which may be beyond our control and subject to risks and uncertainties that may cause the actual results of the Company or the industry to differ materially from such forward-looking statements.

The information, opinions and forward-looking statements are provided as of the date stated in this document and the Company is under no obligation to publish any updates thereof except for what is required by applicable law or stock exchange rules and regulations.

# Strong results confirm the attractiveness of the markets we serve

Financial highlights Q2/YTD 2022/23



ORGANIC REVENUE GROWTH

**11%**

YTD 2022/23: 10%



EBIT MARGIN  
before special items

**27.0%** (-0.7%-pt vs. LY)

YTD 2022/23: 25.9%  
(-0.3%-pt vs. LY)



FREE CASH FLOW  
before acquisitions and special items

**EUR 39m**

YTD 2022/23: EUR 56m

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# Growth driven by lighthouses, supported by a solid core

Strategic and operational highlights Q2/YTD 2022/23

## 2025 STRATEGY



### REINVEST

In **Human Health**, science around synbiotics combining HMOs with probiotic solutions presented at industry conferences



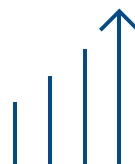
### EXTEND

**Bacthera** added additional fermentation capacity and continued work on preparing production facilities for the SER-109 agreement with Seres Therapeutics



### LEVERAGE

Approval of specific **HMOs** in EU for safe use in infant formula at the highest dosage levels

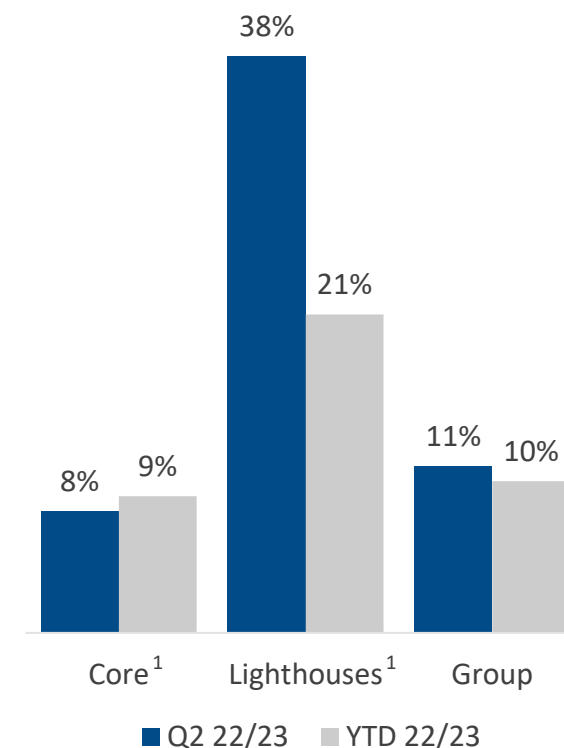


### GROUP

Solid **pricing** impact from the initiatives executed in the second quarter across the businesses

## ORGANIC GROWTH

Q2/YTD 2022/23

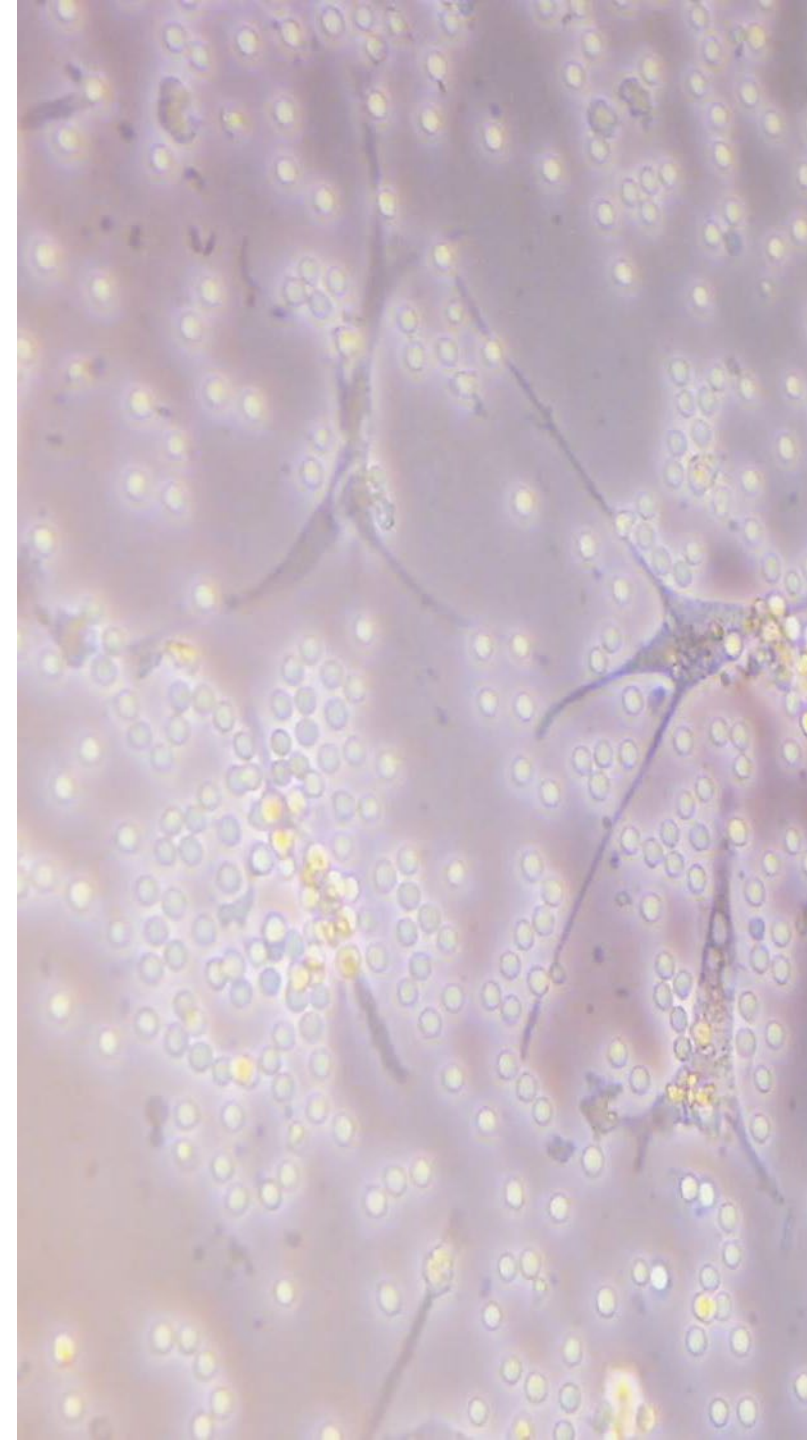


<sup>1</sup> Core includes FC&E ex. Bioprotection and Fermented Plant Bases, Human Health and Animal Health. Lighthouses includes Bioprotection, Fermented Plant Bases, HMO and Plant Health.

# HMO progressing well with strong growth

## SELECTED KEY HIGHLIGHTS

- ✓ Strong first half supports full year outlook of approx. 30% organic growth.
- ✓ Customer interest in HMOs remains high with further penetration of HMOs into infant formula products.
- ✓ Regulatory approvals of Chr. Hansen's Human Milk Oligosaccharides for infant formula by authorities in Europe, US, Canada and Israel.
- ✓ LNT, 3-FL and 3'-SL received EU approval for safe use in infant formula at the highest dosage levels approved in the HMO market, following regulatory approvals in US, Canada and Israel, Australia & New Zealand in 2022.
- ✓ In Human Health, science around synbiotics combining HMOs with probiotic solutions presented at industry conferences.
- Product registrations in China and other key geographies are ongoing.
- Approach to capacity expansion pending proposed merger outcome.

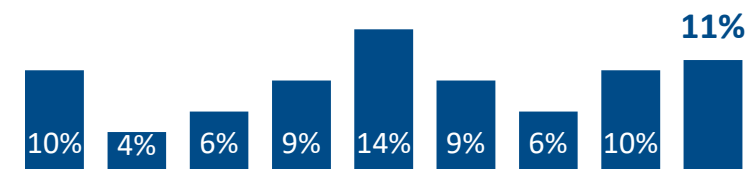


# Strong growth in FC&E and solid growth in H&N

Organic sales performance by business area



**GROUP<sup>1</sup>**

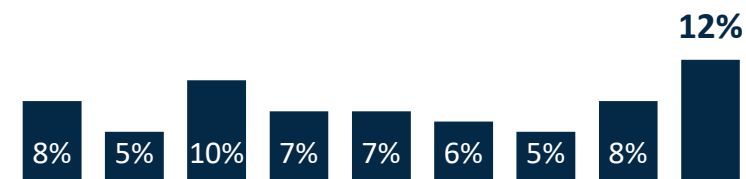


Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
20/21			21/22			22/23		

	VOLUME/ MIX	PRICE	FX	EUR GROWTH
Q2	+5%	+6%	0%	+11%
YTD	+5%	+5%	+3%	+13%



**FOOD CULTURES & ENZYMES**

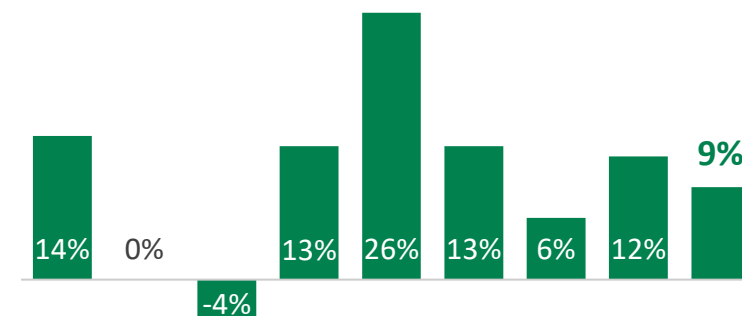


Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
20/21			21/22			22/23		

	VOLUME/ MIX	PRICE	FX	EUR GROWTH
Q2	+3%	+9%	0%	+12%
YTD	+3%	+7%	+2%	+12%



**HEALTH & NUTRITION<sup>2</sup>**



Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
20/21			21/22			22/23		

	VOLUME/ MIX	PRICE	FX	EUR GROWTH
Q2	+6%	+3%	+1%	+10%
YTD	+8%	+2%	+5%	+15%

<sup>1</sup> Historic figures (20/21) refer to continuing operations (i.e., excluding Natural Colors).

<sup>2</sup> The acquisition of HSO HC is included in organic growth since Q3 2020/21 (closing April 2020), UAS Labs (closing July 2020) and Jennewein (closing October 2021) since Q1 2021/22.

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# Growth supported by progress in all regions, except for APAC

Organic sales performance by region

## ORGANIC GROWTH Q2/YTD 2022/23

**+4%**

YTD: +1%

### NORTH AMERICA

32% of revenue YTD

- Solid growth in FC&E driven by good volume growth and pricing initiatives
- H&N declined due to a tough comparable from last year in Human Health. Partly offset by a positive impact from order timing in HMO

**+22%**

YTD: +19%

### LATIN AMERICA

13% of revenue YTD

- Growth driven by both pricing initiatives, including EUR-based pricing, and volume growth across H&N and FC&E

**+18%**

YTD: +17%

### EUROPE, MIDDLE EAST & AFRICA

37% of revenue YTD

- Growth driven by strong growth in both H&N and FC&E
- FC&E supported by pricing, incl. EUR-based pricing, and volume growth
- H&N supported by pricing initiatives and strong volume growth across all product categories

**0%**

YTD: +6%

### ASIA-PACIFIC

18% of revenue YTD

- FC&E declined due to lower volumes in China. Partly offset by strong momentum in India
- Modest growth in H&N driven by very strong growth in China. South Korea declined due to softening market
- Growth supported by pricing

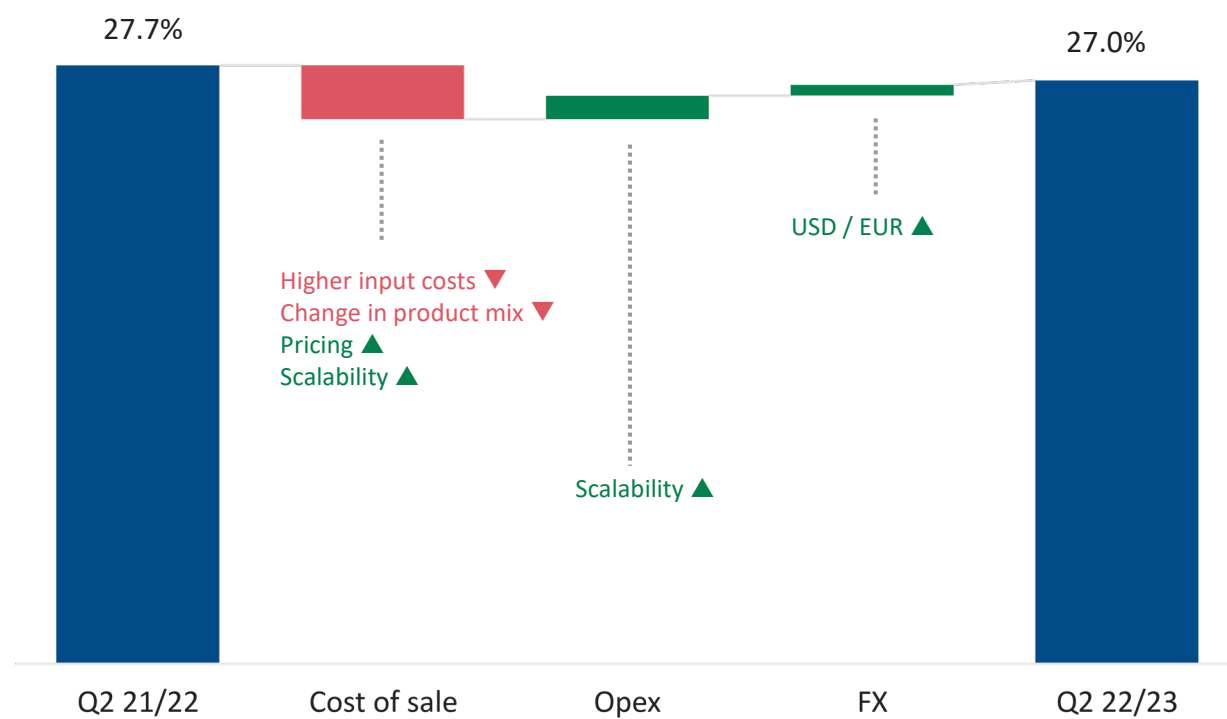
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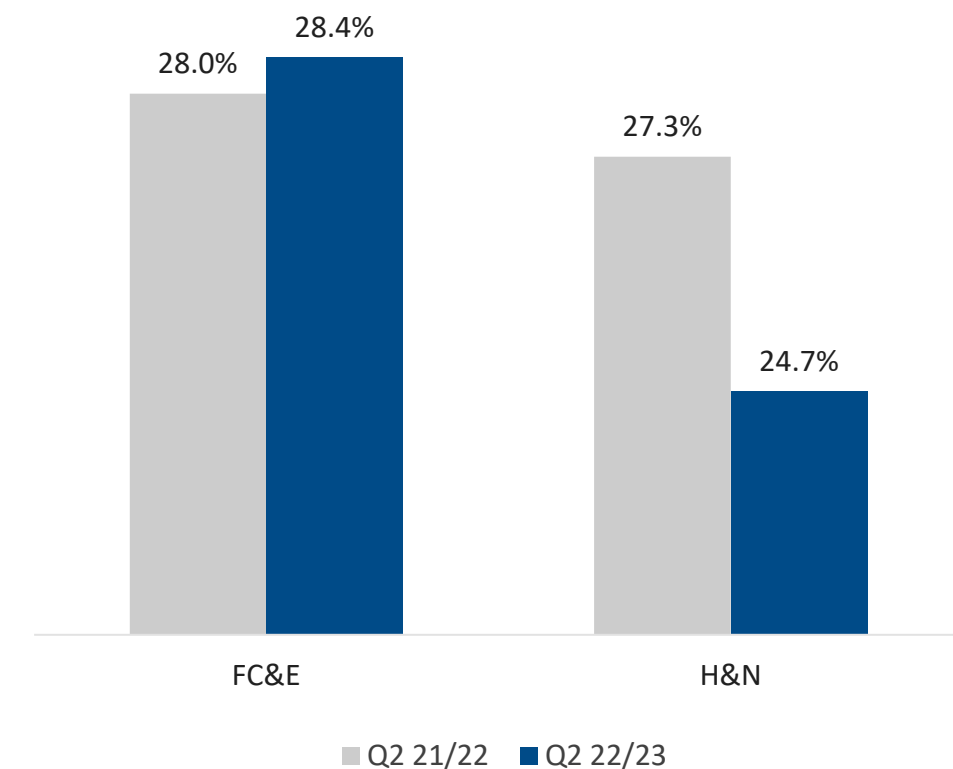
# Profitability impacted by elevated cost levels

EBIT margin b.s.i. Q2 2022/23

## GROUP EBIT MARGIN B.S.I. in %



## SEGMENT EBIT MARGIN B.S.I. in %

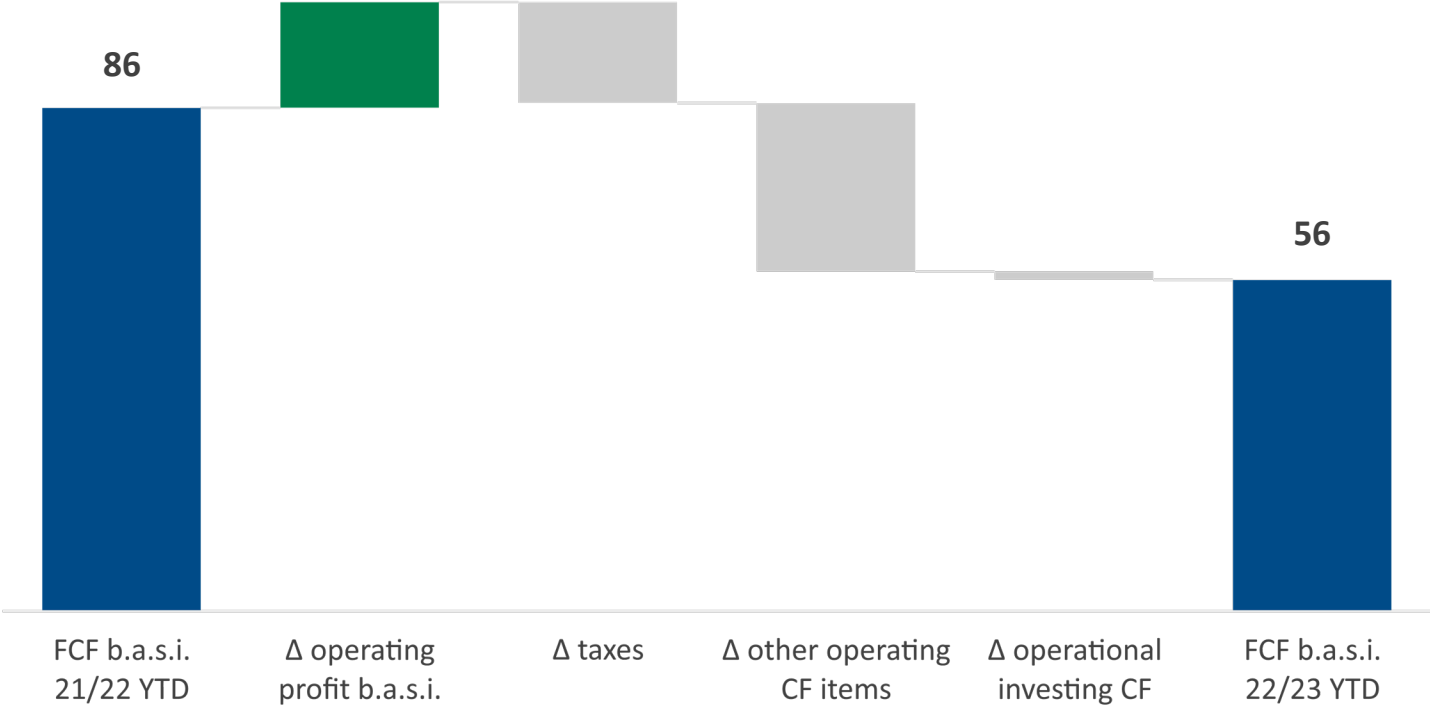


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# Higher operating profit more than offset by higher working capital and taxes paid

FREE CASH FLOW B.A.S.I. in EURm


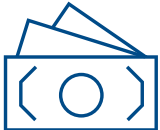



ROIC excl. goodwill in %

	YTD 21/22	YTD 22/23
Group		
	22.6%	23.2%
FC&E		
	31.9%	31.1%
H&N		
	13.3%	15.1%

# Outlook for 2022/23

Outlook for organic growth adjusted to reflect an increasing impact from EUR-based pricing

	2022/23 OUTLOOK April 13, 2023	PREVIOUS OUTLOOK January 12, 2023
 <b>ORGANIC REVENUE GROWTH</b>	8-11%	7-10%
 <b>EBIT MARGIN</b> b.s.i.	26-27%	26-27%
 <b>FREE CASH FLOW</b> b.a.s.i.	EUR 180-220m	EUR 170-210m

## FREE CASH FLOW b.a.s.i.

- The outlook for the free cash flow b.a.s.i. is adjusted to reflect a change in phasing of operational investing activities.

## SENSITIVITY

- Continued changes in the geopolitical and macroeconomic climate including additional sanctions towards Russia or other countries where Chr. Hansen operates, supply disruptions and developments in raw material and other input costs, such as energy, may impact the outlook for 2022/23.
- The outlook for 2022/23 is based on actual rates until April 12, 2023, and for the remainder of the year assuming constant exchange rates at the current level of EUR/USD rate of 1.10 (previously EUR/USD rate of 1.07).

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# Novozymes and Chr. Hansen combination

Combination to create a leading global biosolutions partner approved by shareholders of Chr. Hansen & Novozymes

## SELECTED KEY EVENTS

- ✓ January 24, 2023: Confirmation from the Danish Tax Assessment Counsel that the proposed combination meets the requirements for completion as a tax-exempt merger under Danish tax legislation.
- ✓ March 8, 2023: Publication of the exemption document incl. announcement of proposed candidates for the Board of Directors of the combined company.
- ✓ March 27, 2023: Expiration of statutory waiting period for US merger control.
- ✓ March 30, 2023: Approval of the proposed merger at the EGMs of Chr. Hansen and Novozymes. Approval of change of financial year for Chr. Hansen.
- The completion of the combination remains subject to the satisfaction of an additional number of conditions set out in the merger plan, including certain additional regulatory approvals.

## PROPOSED MERGER

- 95.24% of the capital represented at the EGM voted in favor of the merger (73% of total capital).

## CHANGE OF FINANCIAL YEAR

- Subject to the status of the regulatory approval process for the proposed combination with Novozymes, Chr. Hansen expects as part of the Interim Report Q3 2022/23 to supplement the current guidance for the financial period September 1, 2022 – August 31, 2023 with an outlook for the extended financial period September 1, 2022 – December 31, 2023.

## EXPECTED CLOSING

- Q4 2023 or Q1 2024.

# Delivering on our FY25 strategy

The background of the slide features a close-up, artistic photograph of several jellyfish. The jellyfish are translucent with a bluish-green hue, showing their internal structures like the bell and tentacles. They are set against a dark, deep blue background, creating a serene and somewhat ethereal atmosphere.

- ✓ Strong first half performance supported by growth in lighthouses
- ✓ HMO progressing well with strong growth
- ✓ Good progress in Bacthera J/V with Lonza
- ✓ Pricing implemented in close collaboration with customers
- × Continued cost pressure
- × Cautious short-term volume outlook

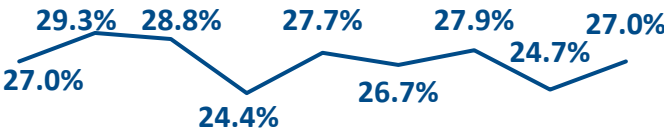
# Q&A

# EBIT margin b.s.i. by segment

Quarterly development



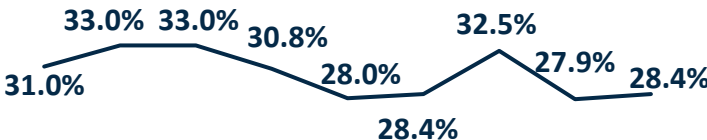
## GROUP



Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
20/21			21/22			22/23		



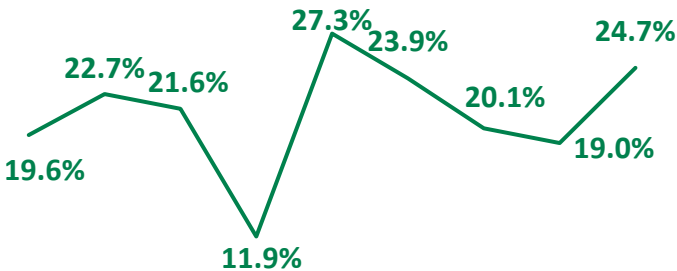
## FOOD CULTURES & ENZYMES



Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
20/21			21/22			22/23		



## HEALTH & NUTRITION



Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
20/21			21/22			22/23		

# What makes us stand out

## Equity story highlights



A leading bioscience player



Exposure to attractive growth areas supported by megatrends



Innovation-driven with focused microbial and fermentation technology capabilities



Sustainable products ('handprint')



Strong cash flow generation with clear capital allocation priorities

# Chr. Hansen is a microbial and fermentation technology leader



## FOOD CULTURES & ENZYMES

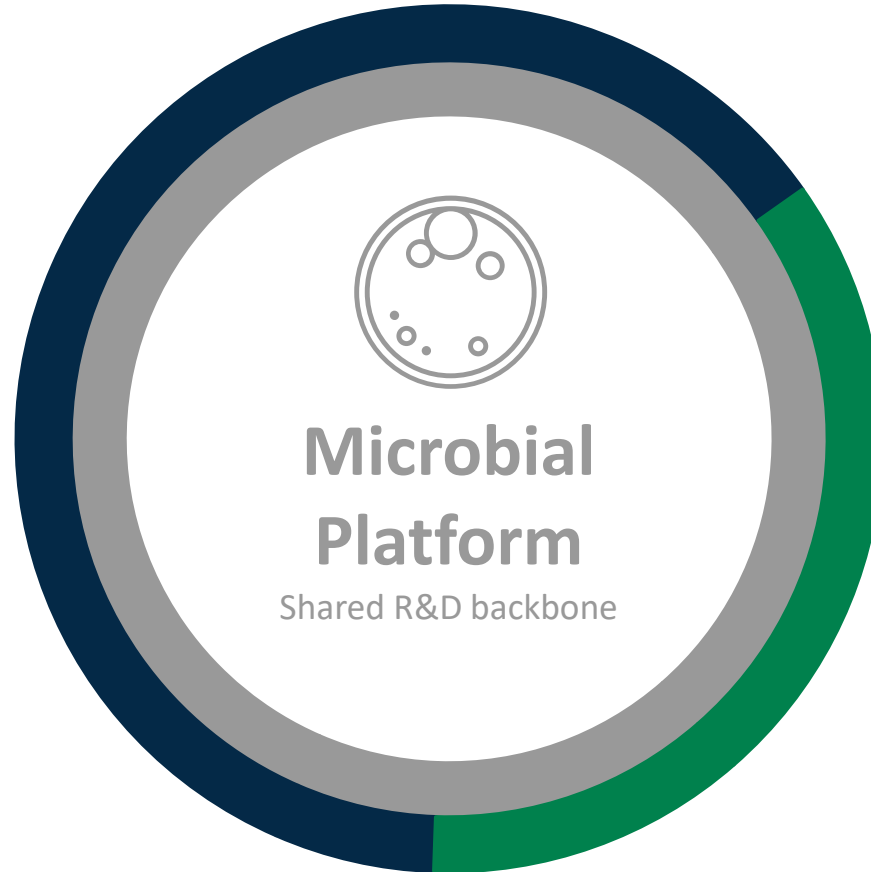
EUR 762m revenue  
(63% of total) in 2021/22



Dairy



Food &  
Beverages



## HEALTH & NUTRITION

EUR 455m revenue  
(37% of total) in 2021/22



Human Health  
& HMO



Animal &  
Plant Health

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# We are the preferred partner

for strategic value-added ingredients



Quotes from customer survey

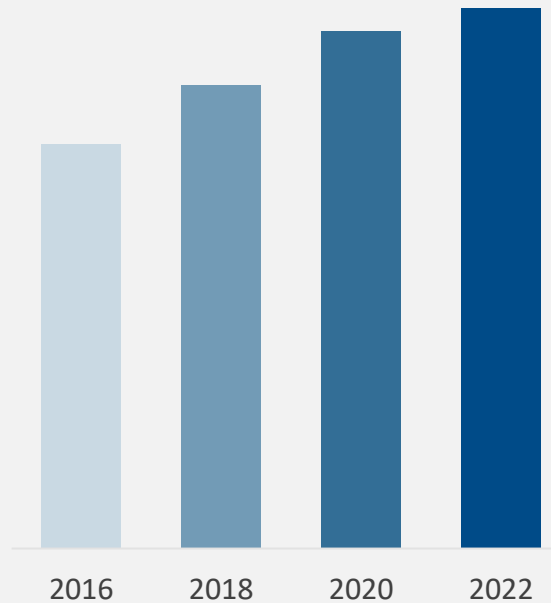
“The **quality of products is definitely the best** on the market.”

“We receive **excellent support from the technical team.**”

“Good professional team that goes beyond the traditional supplier - **always offering the best service**, speed of delivery and new market insights.”

## HIGH CUSTOMER SATISFACTION AND LOYALTY

Net Promoter Score®



## STRATEGIC INGREDIENT LOW COST – HIGH VALUE



Taste & texture  
Nutritional value  
Quality & consistency  
Pathogen protection  
productivity improvements

**1-5%**  
of cost



Health benefits  
Higher feed conversion  
Better crop yields

**>1-5%**  
of cost

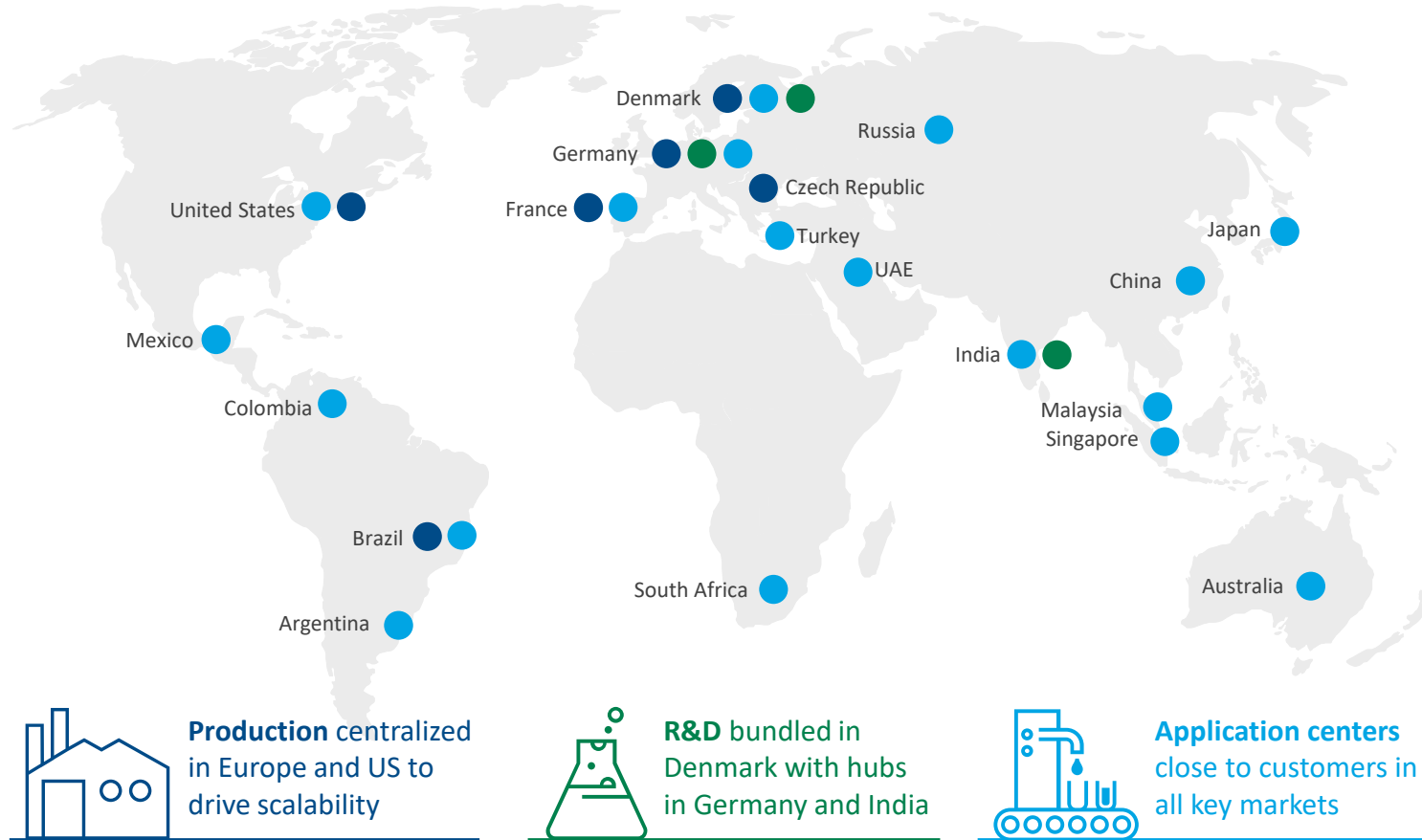
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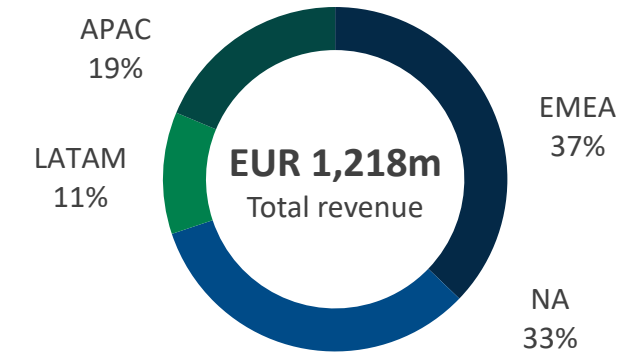
# We operate globally

with a centralized R&D and production set-up and a comprehensive network of application centers

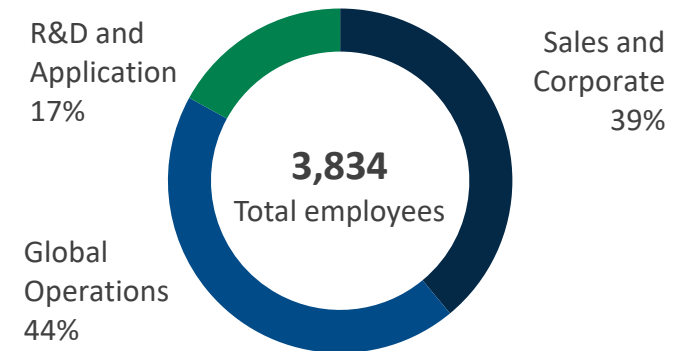
## GLOBAL FOOTPRINT AT A GLANCE



## REVENUE BY REGION 2021/22



## EMPLOYEES BY FUNCTION 2021/22



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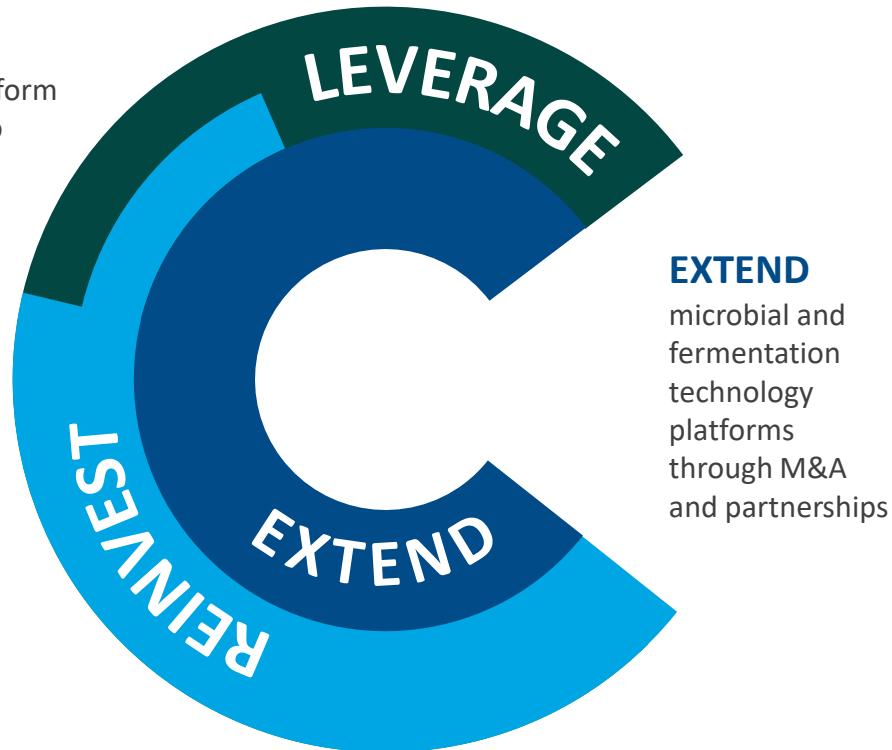
# 2025 Strategy: Creating a differentiated bioscience company

with focus on microbial and fermentation technology platforms to grow a better world. Naturally.

## Where to play

### LEVERAGE

Microbial Platform  
to expand into  
new areas



### REINVEST

in core platforms

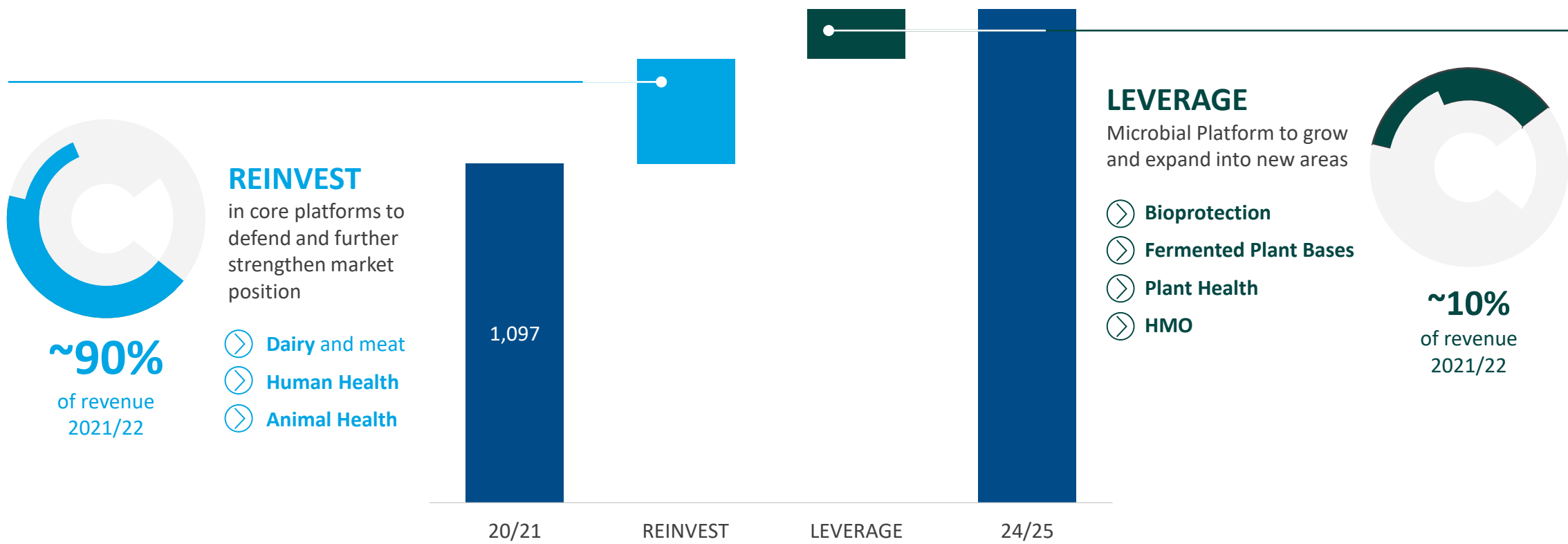
## How to win

- 1 CUSTOMERS** Further expand customer base and global reach and excel in customer centricity
- 2 INNOVATION** Accelerate new product development and commercialization
- 3 OPERATIONS** Realize scalability benefits and operational efficiencies
- 4 PEOPLE** Safeguard culture and invest in talent management
- 5 PURPOSE** Grow a better world. Naturally.

# Core platforms will be the biggest absolute growth driver until 2025

while new growth areas are expected to grow faster than Group

## ABSOLUTE GROWTH DRIVERS UNTIL FY25



# We will continue to reinvest in our core FC&E business

to bring new innovations to customers



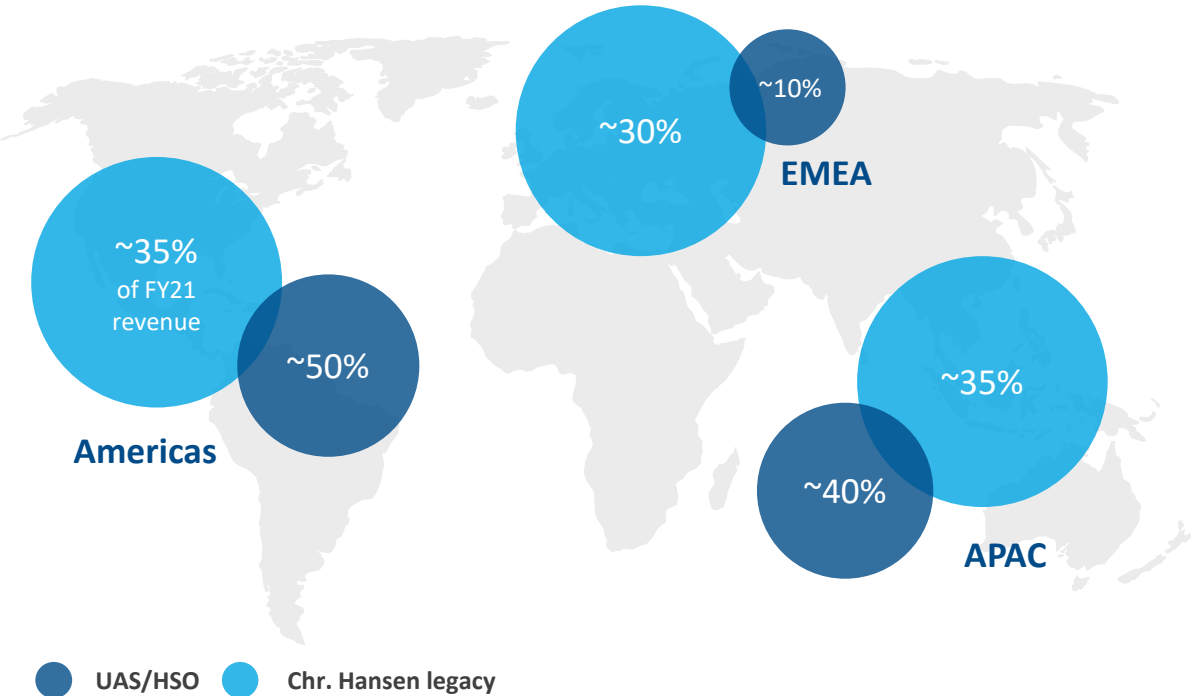
Conversion in fermented milk  
~80% (potential: 90%) and in  
cheese ~55% (potential: 75%)

# Human Health is uniquely positioned after the acquisitions

to serve a broader customer base and realize synergies



WE WILL LEVERAGE OUR GLOBAL COMMERCIAL CAPABILITIES TO ROLL OUT OUR PRODUCT OFFERING GLOBALLY....

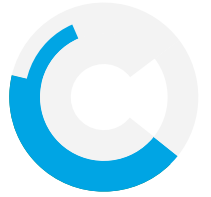


... TO A BROADER CUSTOMER BASE IN DIFFERENT SEGMENTS, INDICATION AREAS AND CHANNELS

Market segment	Multi-speciesSingle-species		
Value proposition	Microbiome diversitySpecific health conditions		
Indication areas	Gut health, immune health, women’s health, infant, novel indication areas		
Customer groups	E-commerce specialists	FMCG/CHC	Pharma

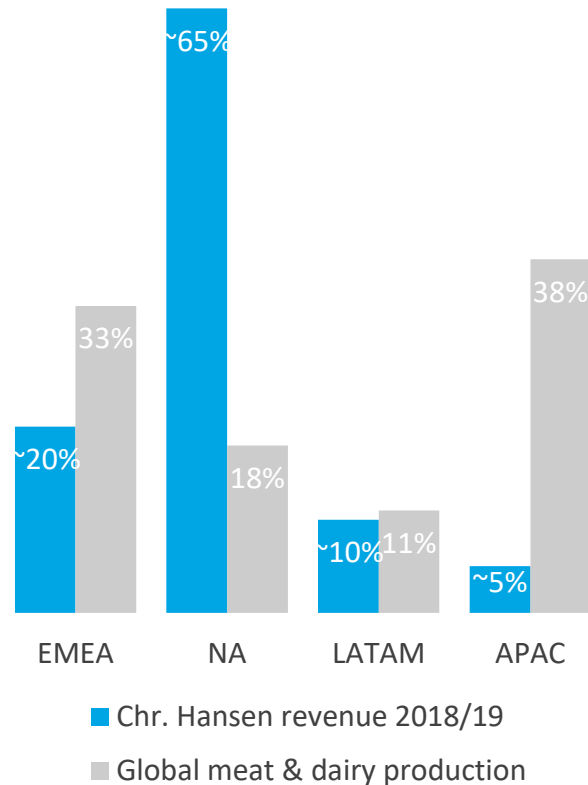
# In Animal Health we will continue to expand our presence

working with partners and direct accounts and rolling our products out globally



## EXPANDING OUTSIDE OF NORTH AMERICA

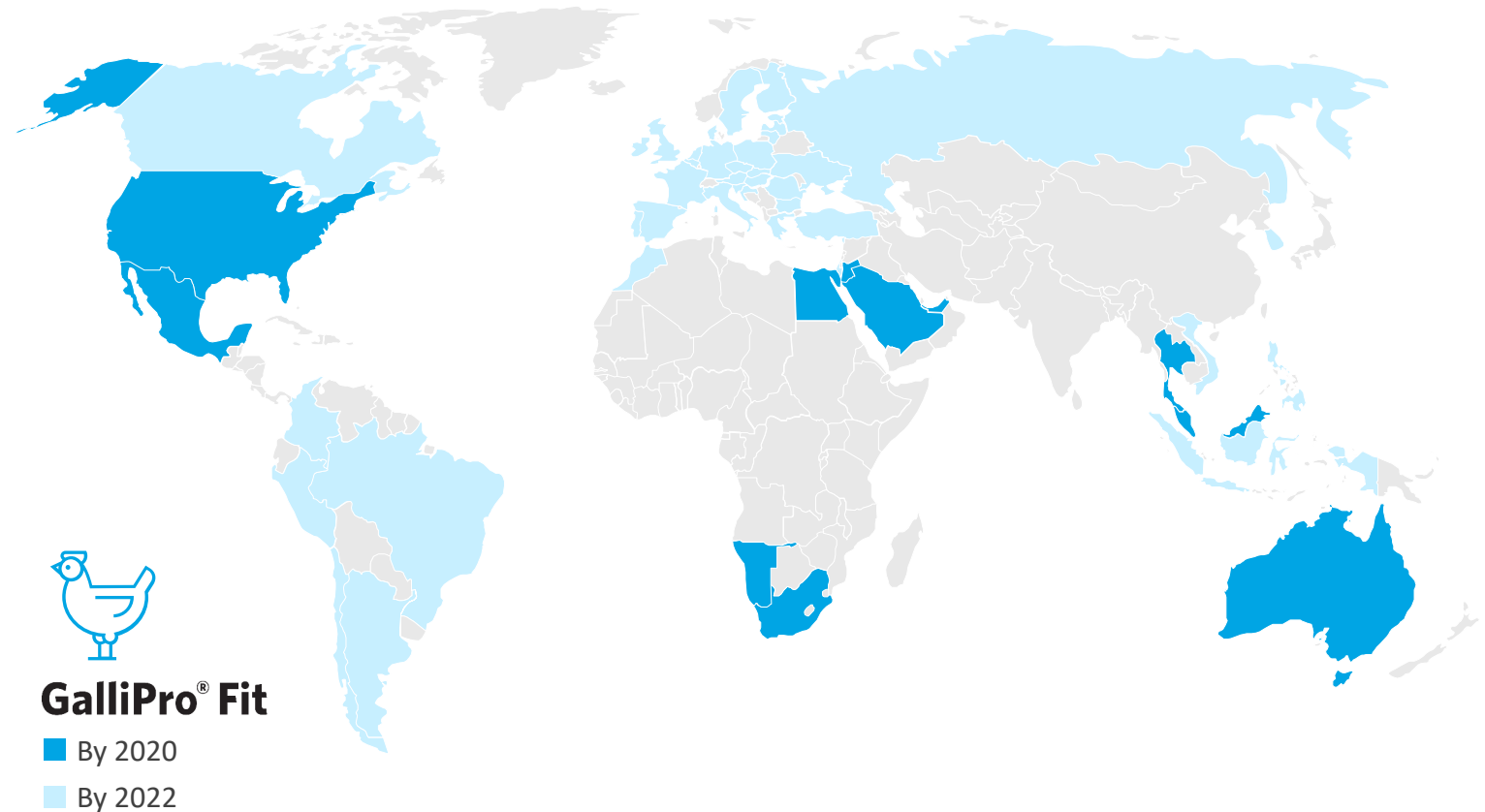
Animal Health revenue vs. global meat and dairy production volumes by regions<sup>1</sup>



<sup>1</sup> FAOSTAT (2018).

## GLOBAL ROLL-OUT OF PRODUCT PORTFOLIO

Example: Countries with (expected) registrations for GALLIPRO® Fit



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# We leverage our technology platform to expand into new areas

and bring microbial solutions to food, health, pharma and farming sectors



## FOOD CULTURES & ENZYMES



### Bioprotection

Reduce food spoilage and increase food safety



### Fermented Plant Bases

'Fermented milk' alternatives and fermented beverages



### Plant Health

Microbial crop protection for more sustainable farming



### HMO

Prebiotics for infant formula



### Live Biotherapeutics

Contract development and manufacturing for live biotherapeutics

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# High growth in HMO market

will be driven by consumer demand for 'close-to-nature' infant formula and increasing scientific evidence



## STRONG UNDERLYING GROWTH DRIVERS



### 2020

- Acquisition of Jennewein with EUR 19m revenue in FY21 and ~120 employees
- Pioneer in HMO manufacturing with highly cost-competitive and IP protected downstream process



### 2021-22

- Establishment of HMO as separate, full value chain under H&N
- Production expanded to secure capacity short-term
- New Applied HMO team established, and R&D center inaugurated
- New regulatory approvals for HMO in Europe, North America and Israel



### 2022-25

- Expand manufacturing capacity; scale a key driver for HMO business to break even
- Secure regulatory approval of HMOs in China and registration of 5HMO mix for several markets

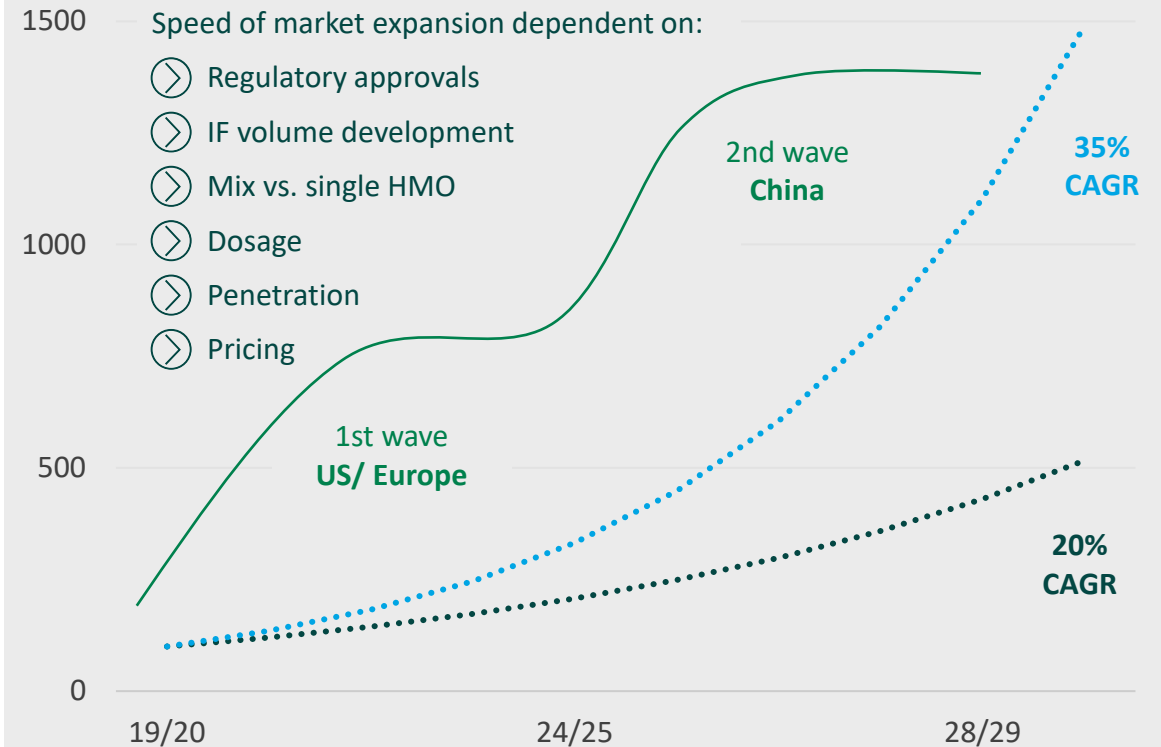


### Beyond 25

- Expand manufacturing capacity
- Bring next generation HMOs to market
- Explore applications beyond infant formula e.g. supplements
- Develop synbiotics

## HMO MARKET EXPANSION DEPENDENT ON SEVERAL FACTORS

Addressable market in EURm (illustrative)



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# Exposure to attractive growth areas supported by megatrends



## SUSTAINABLE AGRICULTURE



## BETTER FOOD PRODUCTION



## IMPROVED HEALTH



Natural plant protection



Better quality silage



Animal nutrition



Quality and safety



Efficient production



Less waste



Healthier food



Supporting health



Next generation health

# Our microbial solutions enable a more sustainable food system from farm to fork and contribute positively to the global health agenda

## GLOBAL CHALLENGE<sup>1</sup>

### GROWING POPULATION

- +50% protein needed to feed 10bn in 2050
- Growing consumerism in emerging markets

### RESOURCE SCARCITY

- 75% of agricultural land used to produce 1/3 of protein
- 1/3 of food is wasted

### CLIMATE CHANGE

- Industrialized animal ag stands for 15% of global emissions
- Global food system key driver for biodiversity loss

### RISING HEALTH COSTS

- Number of people age 65+ to double by 2050
- Chronic diseases account for >50% of deaths worldwide
- Antimicrobial resistance top 10 global public health threat

## MICROBIAL OPPORTUNITY



Increase dairy efficiency



Prevent food contamination



Better feed conversion in livestock



Less antibiotic growth promoters



New plant-based foods with lower carbon footprint



Alternatives to chemical crop protection



Healthier food – less sugar, salt, lactose and fat



Health through nutrition – HMOs and probiotics

<sup>1</sup> Sources: Good Food Institute, AMR, WHO, UN.

# Our microbial solutions help the agricultural industry become more efficient

with solutions that improve productivity and make more out of less

## DAIRIES ARE INCREASINGLY CHALLENGED BY

- Rising raw material costs
- Rising energy costs
- Rising milk prices
- Rising labor costs



### CHY-MAX® S / YIELDMAX®

- Helps cheese makers achieve higher yield of up to 1%
- Enables faster and more precise production



### YOFLEX® PREMIUM

- Allows protein savings of 3-4% by reducing unnecessary ingredients such as skim milk powder equal to 1-3% in COGS

## EXAMPLE OF A CHEESE PRODUCER USING CHY-MAX® SUPREME

- Yield increase of up to **1.5%**<sup>1</sup>
- Faster and more efficient production
- Extension of shelf-life



- The cheese producer achieved yearly cost savings of **960,000 EUR**<sup>1</sup>



<sup>1</sup>The cheese producer has a yearly production of 16,000 tons. The cheese price is 4,000 EUR per ton.

# Innovation-driven

with focused microbial and fermentation  
technology capabilities



Nearly 150 years of experience in  
microbial science



One of the industry's largest culture  
collections with +40,000 strains



Mastering complexity with +400  
strains produced at industrial scale



~8% of revenue spent  
on research and development



# Chr. Hansen is a microbial powerhouse

with leading capabilities across the entire R&D value chain

## ANALYTICAL SOLUTIONS, EMERGING TECHNOLOGIES & PORTFOLIO MANAGEMENT



### DISCOVERY



### CULTURE DEVELOPMENT



### APPLICATION



### PROCESS DEVELOPMENT

From genotype...  
...to phenotype

- Maintain, expand and improve culture collection
- Strain characterization to identify applications
- Strain customization via classical improvement techniques (no GMO)

From strain...  
...to culture

- Identify how many and which strains compose a culture (combinatorial microbiology)

From culture...  
...to product

- Operate application centers
- Provide daily technical support to customers
- Know how microbes work in different foods, human and animal guts, plants and soils

From sample size...  
...to industrial scale

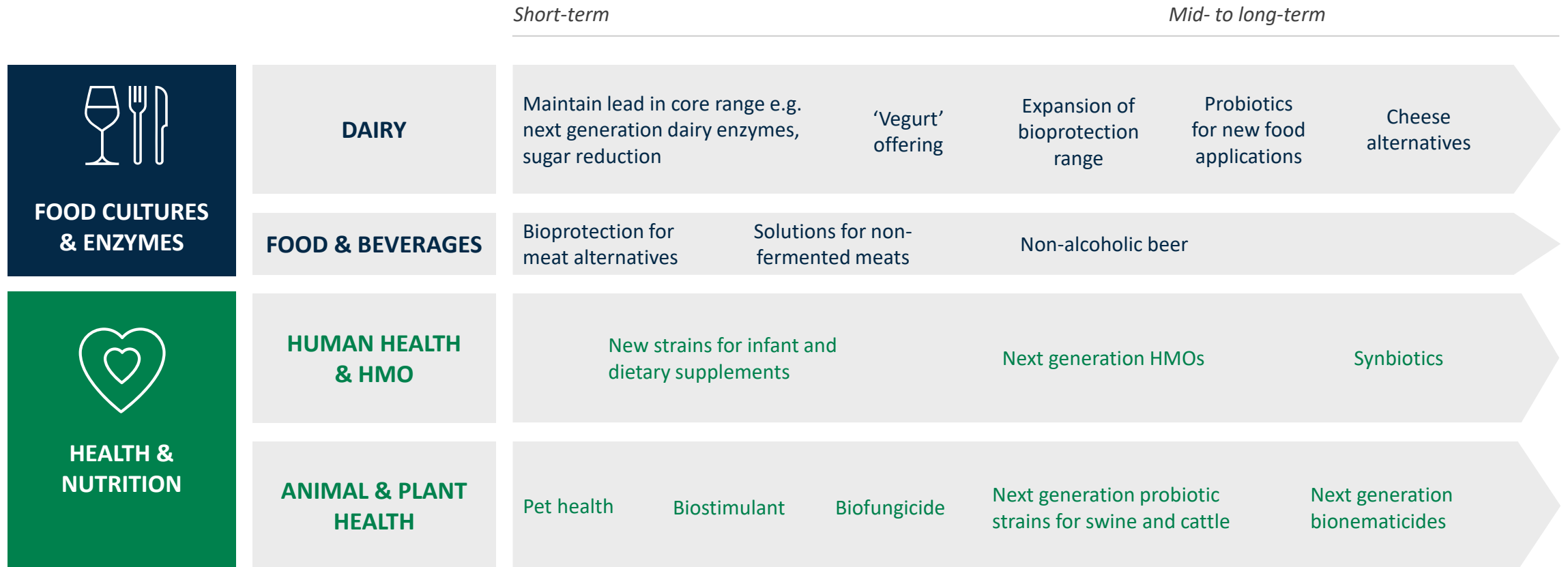
- Develop manufacturing processes e.g. upscaling for ONE industrial platform
- Drive productivity and efficiencies together with Global Operations
- Microbial stability programs
- Run pilot plants and produce all inoculation materials worldwide

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# Strong and well-balanced R&D pipeline

to drive growth during strategy period until 2025 and beyond



# Sustainable products



Ranked as a leader  
in sustainability by  
Corporate Knights

**>1 billion**

People consume  
a product with a Chr. Hansen  
ingredient every day

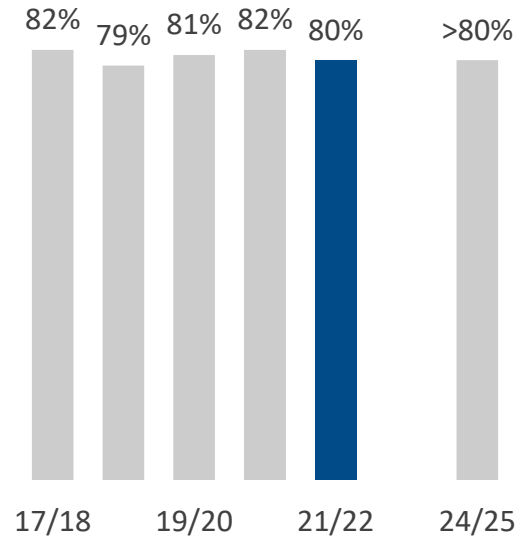
**80%**

Of our revenue contributing  
positively to the United Nation's  
Sustainable Development Goals

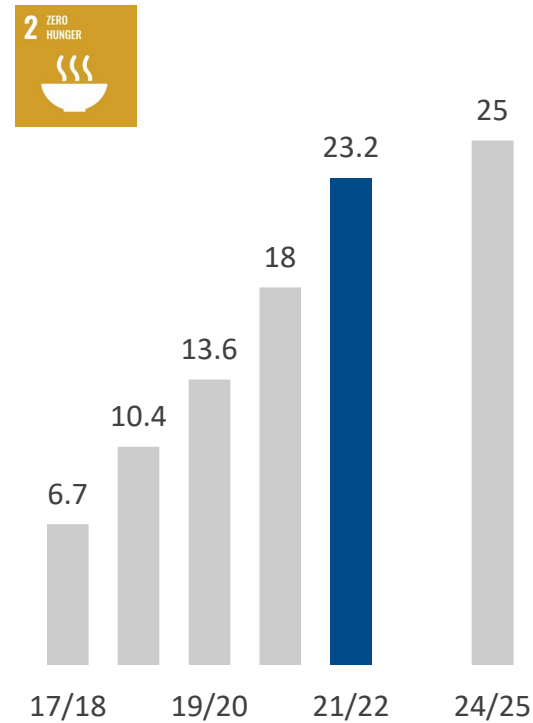
# 80% of our revenue contribute to the Sustainable Development Goals

as per our annual product mapping which is assured by PwC

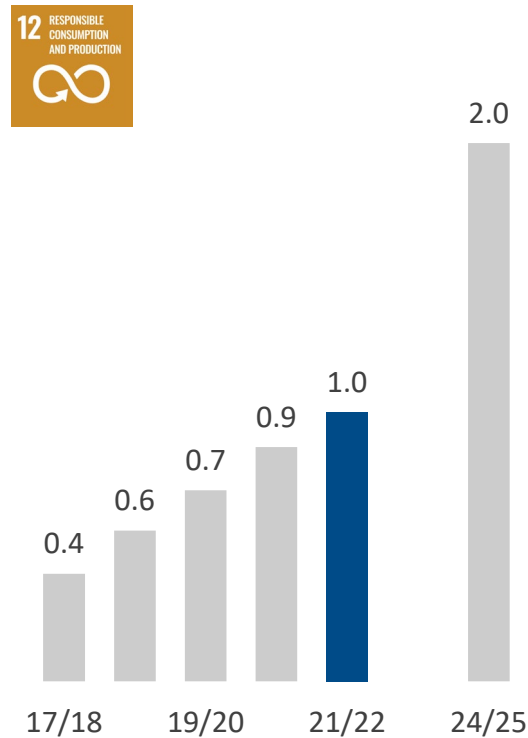
## CONTRIBUTION TO UN GLOBAL GOALS in % of gross revenue<sup>1</sup>



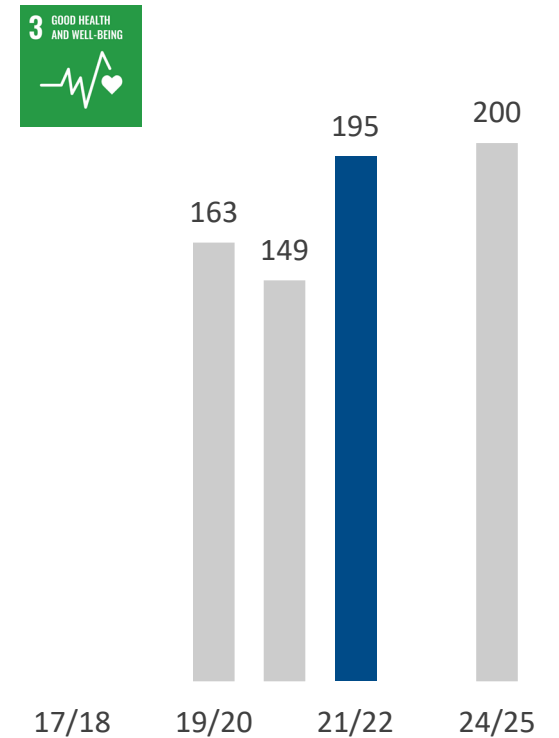
## FARMLAND TREATED WITH NATURAL SOLUTIONS<sup>2</sup> in m ha



## YOGURT WASTE SAVED<sup>3</sup> in m tons



## PROBIOTICS CONSUMED in m people<sup>4</sup>



<sup>1</sup> Financial year 2017/18 includes Natural Colors business that was divested in 2021 and are therefore not fully comparable.

<sup>2</sup> Includes Plant Health and Animal Health silage inoculants.

<sup>3</sup> Figures have been recalculated in FY21 based on a minor adjustment of the methodology.

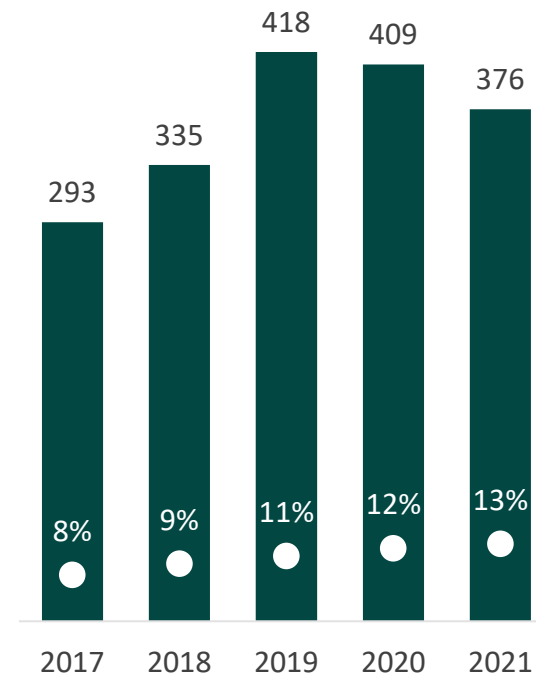
<sup>4</sup> New KPI was introduced in FY21.

# Consumer demand for plant-based remains high

but taste is the key barrier the industry needs to overcome to go mass market

## LAUNCH ACTIVITY REMAINS HIGH BUT VOLUMES ARE SMALL...

Global 'vegurt' launches and share of total launches in yogurt category<sup>1</sup>



<sup>1</sup> Mintel (Dec 2021).

<sup>2</sup> FMCG Guru (2021).

## ... DUE TO PRODUCT QUALITY

Share of active consumers<sup>2</sup>

# 40%

struggle to give up dairy and meat as products do not live up to expectations

# 70%


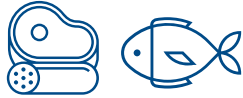
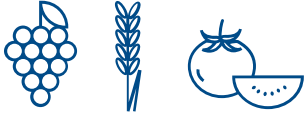
of consumers would be willing to eat more plant-based foods if they tasted better than they do today

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# Food Cultures & Enzymes aims to be the fermentation partner of choice

transforming proteins into great food and beverages products – no matter which protein base

PROTEIN SOURCES						
MILK BASES 		MEAT BASES 		PLANT BASES 		
Fermented milk	Cheese	Fermented meat	Other meats & fish	Dairy & meat 'alternatives'	Ready-to-eat salads	Fermented beverages
FERMENTATION for texture, taste, other (e.g. sugar reduction)						
BIOPROTECTION for shelf-life extension and food safety						
PROBIOTICS for gut health & immunity						
ENZYMES for coagulation, lactose & sugar reduction, productivity (e.g. yield)						

## MICROBIAL SOLUTIONS



With our microbial expertise we cater to consumer demand for safe, tasty, healthy and sustainable foods and beverages

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# Sustainability as an additional enabler for margin expansion

Our decarbonization roadmap towards 2030

## 2030 SCIENCE BASED TARGETS



**42%**

reduction target for scope 1+2



**20%**

reduction target for scope 3

## THINK CLIMATE. NATURALLY. INITIATIVES



### OPERATIONS

- Convert all sites to 100% renewable electricity
- Work smarter with heat supply
- Sustainable refrigerants
- Recyclable packaging
- Optimize waste management



### SOURCING

- Approach selected suppliers for low-carbon practices incl. conversion to renewable energy
- Optimize use of raw materials via process innovations



### LOGISTICS

- Optimize transition from air to sea or road freight
- Explore low-carbon fuels in dialogue with freight forwarders



### ENGAGEMENT

- Promote climate literacy amongst employees
- Crowdsource climate smart ideas

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# Executive compensation closely aligned with shareholder interests

– strong incentive component

## SHORT TERM: ANNUAL INCENTIVE PROGRAM FOR CEO AND CFO

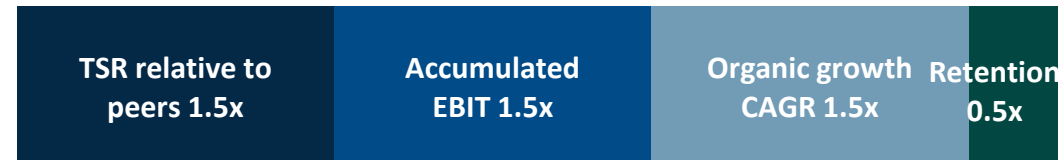
- Based on group financial and non-financial targets
  - 20% of annual bonus linked to ESG (KPIs related to customer service, quality, diversity, safety and sustainability)
- Bonus is paid as a minimum 1/3 in Restricted Stock Units and 2/3 in cash; normally accounts for 20-25% of total remuneration package



In % of fixed pay <sup>1</sup>	Target	Max
CEO	70%	100%
CFO	50%	71%

## LONG TERM: PROGRESSIVE THREE-YEAR INCENTIVE PROGRAM

- Requires personal investment in Chr. Hansen shares to participate
- Grant value estimated at 25-30% of the remuneration package
- Vest in full after three years



Target matching shares per investment of one share

In % of fixed pay <sup>1</sup>	Target	Max
CEO	80%	120%
CFO	60%	90%

<sup>1</sup> Base plus pension.

# Financial calendar

**July 6, 2023**

Interim Report Q3 2022/23

**October 12, 2023**

Interim Report Q4 2022/23

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