Chr. Hansen Holding A/S - Climate Change 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Chr. Hansen is a global, differentiated bioscience company that develops natural ingredient solutions for the food, nutritional, pharmaceutical and agricultural industries. The company has subsidiaries and representatives offices in 30 countries and production facilities on five continents with headquarters in Hørsholm, Denmark. We mainly produce cultures and dairy enzymes and probiotics.

Sustainability at Chr. Hansen is truly part of the business and is fully integrated with our corporate strategy and in our purpose - Let's grow a better world. Naturally. Chr. Hansen is driven by business opportunities that support a more sustainable future. We aim to create shared value and examples of collaboration are: Assessing the supply chain risks as well as carbon and water footprints, improving production yields, protective cultures to reduce spoilage and more. Our sustainability strategy focuses on three key areas where we can make a big difference - sustainable agriculture, avoiding food waste and improving global health. We have defined our long-term targets for each of these key areas.

Every day, products containing Chr. Hansen's ingredients are consumed by more than 1 billion people. This presents a unique opportunity to address some of the world's biggest challenges, defined by the UN Global Goals. Chr. Hansen is committed to improve food and health for a sustainable future for the benefit of the consumers, customers and stakeholders. To assess the contribution to sustainability, Chr. Hansen has estimated the percentage of its gross revenue that has a positive impact on the UN Global Goals. The measuring focuses on the three UN Global Goals where the ingredients cooperate has the biggest impact – UN Global Goal 2 (Zero Hunger), UN Global Goal 3 (Good health and well-being) and UN Global Goal 12 (Responsible consumption and production). For this assessment, Chr. Hansen has developed a five-step approach. This methodology, documentation and final conclusions have gone through an assurance process by independent auditor. We have aligned our new sustainability strategy to the United Nations Global Goals (SDGs) and have assessed the contribution of our products with the SDGs (SDG 2, SDG 3 and SDG 12).

We have have mapped our entire product portfolio, and the mapping concludes that 80% of Chr. Hansen's gross revenue contributes positively to UN Global Goals 2, 3 and 12.

Chr. Hansen's strategy has three focus areas: Products; Planet; and People, with 2025 targets and sub-targets defined for each area. During the year, actions were taken to strengthen the internal processes and define new initiatives to support the targets. As part of the Planet targets, the we launched our climate ambition, Think Climate. Naturally. aligning Chr. Hansen's decarbonization with the Paris Agreement under the criteria of Science Based Targets initiative.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
September 1 2021

End date
August 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.
Brazil
Czechia
Denmark
France
Germany
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Other, please specify (Operational control with the exception of leased vehicles which is reported in scope 3, 8 Upstream Leased Assets due to low data quality of this activity.)

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	DK0060227585

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board Chair	The highest level of climate change management is integrated in the ESG oversight by the Board of Directors. The Board of Directors is responsible for overseeing Chr. Hansen's climate targets and progress related to scope 1, 2 and 3, TCFD and emerging climate-related regulation. The Board of Directors has approved Chr. Hansen's Science Based Targets and enhanced implementation of TCFD.
Board-level committee	To ensure a profound focus on ESG and climate issues, the Board of Directors has decided to expand the fiduciary duties at committee level. Hence, the Audit, Nomination, Remuneration and Science & Innovation committees all oversee ESG/climate issues. The Audit Committee has ensured quarterly progress on scope 1+2.
Chief Executive Officer (CEO)	A Sustainability Board, chaired by President & CEO and composed of representatives of the business divisions and key internal functions, ensures that sustainability and ESG is effectively anchored in the organization. The Sustainability Board ensures ownership, involvement and commitment from the entire business in defining, prioritizing and executing on the sustainability and ESG objectives. The Sustainability Board provided guidance on the ambition level of Chr. Hansen's climate targets and decarbonization roadmap.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	The highest level of climate change management is integrated in the ESG oversight by the Board of Directors. All board members are directly connected to all strategy processes within the company and secure influence. The Board of Directors ESG oversight is driven by the Sustainability & ESG team and receives updates on climate-related items such as scope1+2+3 and TCFD through the quarterly reporting process.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	An educational session on Climate was helt for the Board of Directors addressing latest conclusions from IPCC, Science Based Targets and decarbonization options.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Implementing a climate transition plan
Integrating climate-related issues into the strategy

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
General introduction to The Sustainability Board is chaired by President & CEO and composed of representatives of the business divisions and key internal functions, ensuring that sustainability and ESG is effectively anchored in the organization, this includes the integration of climate-related issues into the strategy. The Sustainability Board ensures ownership, involvement and commitment from the entire business in defining, prioritizing and executing on the sustainability and ESG objectives. The Sustainability Board provided guidance on the ambition level of Chr. Hansen's climate targets and decarbonization roadmap.

The rational: The climate-related responsibilities of the CEO in relation the three chosen positions, Managing annual budgets for climate mitigation activities, Implementing a climate transition plan and Integrating climate-related issues into the strategy, has been assigned to the CEO to ensure ownership, involvement and commitment from the entire business.

The process to inform and monitor: Each quarter the Sustainability board, thereby the CEO, have a meeting on sustainability related matters which includes, but not limited to, the three positions chosen in C1.2. The Head of Sustainability and ESG informs the Sustainability Board of the work the team has done in the last quarter, this includes monitoring of climate-related issues. An example is our target of 100% renewable energy by 2025, the Sustainability board evaluated the possibility of purchasing PPA. This is linked to our our climate transition plan and the management of the budget for climate mitigation activities.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The executive management team has a 20% ESG component in their variable bonus scheme including climate aspects.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Corporate executive team

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Board approval of climate transition plan
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The executive management team has a 20% ESG component in their variable bonus scheme including climate aspects.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The executive management team has a 20% ESG component in their variable bonus scheme including climate aspects.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	This is considered short-term as an impact taking place within one fiscal year.
Medium-term	1	5	Climate impacts materialized within a 5 years horizon are considered medium term.
Long-term	5	20	Climate impacts materialized beyond a 5 years horizon are considered long term.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Board and management have taken the decision to integrate TCFD in the enterprise risk management framework.

The Company operates a three-tier risk system ensuring clarity and transparency in which risks are reported to the Executive Board and the Board of Directors, allowing them to ensure that the right risk mitigation strategy is adopted. Tier 1 risks, the most significant risks, are reported to the Board of Directors. Tier 2 risks are managed by the Executive Board, while Tier 3 risks are managed locally by the respective leadership teams.

When identifying and assessing climate-related risk is evaluated against likelihood and severity. Each risk is assessed in terms of six impact divers: health and safety, compliance, financial (quantitative), business interruption, brand & reputation and ESG. With ESG being an integrated element of the valuation of Chr. Hansen, the attribute is an asset to be protected. It focusses on potential reactions from the ESG investor community should a risk materialize.

The risks are assessed in respect of the likelihood of the impact materializing of a period of five years.

A substantive financial or strategic impact is considered a risk with a financial exposure over 10mEUR. A risk becomes a tier 1 risk with a financial exposure of 50mEUR.

Chr. Hansen considers risk management a natural component of the strategy process. By combining internal insights with external foresights, such as the World economic Forum's Global Risk report, relevant strategic uncertainties have been considered and mitigated where possible.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Having a very mature enterprise risk management program in Chr. Hansen, risk sessions are continuously held through the organization. When analyzing the risks, the Company takes a holistic approach to ensure cross-organizational participation.

To achieve clear risk ownership and an embedded risk culture within Chr. Hansen, Risk Champs are appointed in each business unit. The purpose of Risk Champs is to facilitate risk management discussions locally and support the risk review processes, enabling decentralized risk structure and management, where appropriate. This also provides a communication channel, allowing easy access to voice a risk.

Risk assessments process are conducted on a quarterly basis with the Executive Board, and bi-annually with the Board of Directors. Through these assessments processes, Management discusses current risks and ensures that the right risk mitigation strategies are adopted, executed and are effective. There is particular focus on overdue mitigations.

Chr. Hansen is in the process of adapting and implementing the TCFD recommendations into our existing enterprise risk management system. As an integrated part of the enterprise risk management system, risks are reviewed, and new risks are identified on a quarterly basis through cross-functional risk workshops. Risks are documented in risk cards detailed at follow-up meetings as required.

Physical risks are analyzed for five hazards using quantitative NatCat simulations, in partnership with external experts. No immediate risks were identified. However, should a hazard materialize in form of temporary shut down of a site, the Chr. Hansen business continuity program will reduce the financial impact.

An example of a Physical risk is that the Company’s largest production facility is located in Copenhagen and given that almost half of the Company’s products pass through this facility, a disruption will have a significant business interruption and financial impact. With the progressing climate changes, torrential rain is becoming increasingly frequent in Denmark. A project involving modelling and the use of physical reviews of the infrastructure is currently ongoing to help the Company better understand the risk of flooding. The Company’s robust business continuity management setup is an important mitigation action.

An example of a transition risk is the uncertainty of carbon pricing taxation programs. Chr. Hansen may not be able to change production set-up, hence will be exposed to higher carbon taxation. The uncertainty is an increasing unit cost on carbon into consideration, that may pose a financial risk.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Current regulations are taken into the assessment and particular risks have been identified and are continuously monitored. This includes legislation on recyclability of packaging materials and green claims.
Emerging regulation	Relevant, always included	Emerging regulations are taken into the assessment and particular risks have been identified and are continuously monitored. This includes risks of carbon taxation and increased taxation of fossil fuels.
Technology	Relevant, always included	The Company is continuously assessing the feasibility of low-carbon and energy-efficient technologies and the risk associated to fossil fuels. Also, Chr. Hansen enables a sustainable food system, and consequently, the Company is surveying related trends and development in markets and consumer behaviour relevant to the existing technology platform of the Company.
Legal	Not relevant, included	Exposure to legal risks is assessed as of no relevance for three main reasons. i) Chr. Hansen's products are considered an enabler technology for the sustainable transition of the food system, ii) Chr. Hansen product claims build on trails done by third party according to food regulations, and iii) Chr. Hansen is not a high carbon emitter.
Market	Relevant, always included	The Company is continuously assessing the development in supply and prices of agricultural raw materials and energy. To deliver excellence, Chr. Hansen has established long-term and strategic relationship with many customers. The Company strives to inspire customers to adapt and convert to more sustainable solutions improving yield and quality, prolonging self-life or substituting chemical alternatives.
Reputation	Relevant, always included	Reputation is assessed as a parameter for all identified risks. Additionally, ESG is now added as a risk impact driver. The Company is continuously assessing the alignment between stakeholders' expectations and low-carbon initiatives. In 2021, the Company embarked on a decarbonization journey aligned with Science Based Targets and the ambition of the Paris Agreement.
Acute physical	Relevant, always included	The acute physical risk of extreme weather events at one of Chr. Hansen's productions sites, is a relevant factor which always is taken into consideration. An ongoing project together with our insurance company is modelling and investigating the potential impact of climate change from an acute and chronic perspective, for Chr. Hansen and its' surroundings.
Chronic physical	Relevant, always included	The chronic physical risk impacting one of Chr. Hansen's productions sites, is a relevant factor which always is taken into consideration. An ongoing project together with our insurance company is modelling and investigating the potential impact of climate change from an acute and chronic perspective, for Chr. Hansen and its' surroundings.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Chr. Hansen's operation relies on significant amount of power and heat. Mainly, power is supplied via national grids and heat is generated with natural gas. The Company believes that the taxaion on fossil fuels will be revised making renewable energy more favorable economically in the near future with increased pressure on nations and policy-makers to tackle climate change. Recent developments include EU's plan for green transition, Fit for 55, EU is revising the energy taxation and The Company expects that this political initiative will be followed by the other regions in which Chr. Hansen has production sites, over time.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3400000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The global direct emissions (scope 1) and indirect emissions related to grid-supplied energy (scope 2 marked based) for FY22 multiplied by an expected carbon price of EUR 100 by 2030 with reference to the coming Danish CO2 tax and the price developments of the EU Emission Trading Scheme.

(24,231+17,897) *100 = 4,212,800 EUR

Cost of response to risk
0

Description of response and explanation of cost calculation
Chr. Hansen monitors the price structures and strives to minimize energy consumption at our sites to stay competitive. The Company has set Science Based Target which includes execution on a decarbonization roadmap. Climate actions includes a global conversion to renewable electricity by 2025 and a constant focus on energy efficiency. Chr. Hansen sees renewable electricity as a more price stable energy form compared to fossil-based energy, and the Company believes that renewable electricity and focus on energy efficiency is sound business and an integral part of how to operate.

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Chr. Hansen is dependent on a stable supply of agricultural raw materials. Chr. Hansen monitors the price structures and strives to minimize supply chain disruptions and dependency on volatile markets due to climate change. The Company has set Science Based Target which includes execution on a decarbonization roadmap. Climate actions includes a supplier engagement program assessing selected suppliers based on climate ambition and climate performance. Chr. Hansen believes that the decarbonization journey with suppliers is an integral part of how to future-proof the business.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
30000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The financial impact is based on a very rough assumption multiplying the global indirect emissions in the supply chain (Upstream scope 3) for baseline as reported in CDP with an expected carbon price of EUR 100 by 2030 with reference to the coming Danish CO2 tax and the price developments of the EU Emission Trading Scheme. Then it is rounded to the nearest million.

302,069*100 = 30,206,900 ≈ 30,000,000 EUR

Cost of response to risk
0

Description of response and explanation of cost calculation
Chr. Hansen monitors the agricultural raw material price structures to stay competitive. Screening raw materials for low-carbon alternatives and working with suppliers are an integral part of Chr. Hansen's Science Based Targets which includes execution of a decarbonization roadmap.

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
If Chr. Hansen is not be able to decarbonize production in the same speed as carbon tax is phased in globally, Chr. Hansen is exposed to carbon taxation. With an increasing unit cost on carbon, the cost will increase. Recently the majority of parties in the Danish Parliament agreed on a proposal phasing in a CO2 tax starting in 2025 and ending at approx. 100 EUR/ton by 2030. This CO2 tax model is used as a global proxy in the impact assessment of a global carbon tax on Chr. Hansen.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2423100

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The global direct emissions (scope 1) from FY22 multiplied by an expected carbon price of EUR 100 by 2030 with reference to the coming Danish CO2 tax and the price developments of the EU Emission Trading Scheme.

Taxation of scope 2 and scope 3 emissions could potentially affect energy and raw material prices.

24,231*100 = 2,423,100 EUR

Cost of response to risk
0

Description of response and explanation of cost calculation
Chr. Hansen's climate program, Think Climate. Naturally. includes execution on a decarbonization roadmap. Investigating how electrification and other low-carbon alternatives can substitute fossil fuels is one of the tracks in the roadmap. The roadmap includes several other tracks and actions addressing scope 2 and scope 3 emissions like Air-2-Sea conversion of logistics, carbon reductions related to continuous improvements in operations and sourcing of renewable electricity.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Over recent years, we have witnessed an explosion in consumers' desire for plant based foods, propelled by a growing climate consciousness and desire to eat more healthily. This lighthouse under Food Cultures & Enzymes was introduced as part of the 2025 Strategy to tap into the potential of fermented dairy alternatives and healthier beverage choices including no/low alcohol beer.

Chr. Hansen sent the first products to address this interesting category on the market in 2017. Since then, the only way has been up.

Partnerships to develop sustainable, innovative foods
In April 2020, we joined MISTA, a California-based start-up optimizer focusing on the development of sustainable, innovative foods. With this collaboration, Chr. Hansen teams up with world-class food players Givaudan, Danone, Ingredion and Mars, to work with a selected cohort of around 20 start-up companies. It will also collaborate with a range of service partners, venture financers and renowned universities such as UC Davis and UC Berkeley.

MISTA brings together the power and expertise of large companies operating in different segments of the value chain, and the agility and fast-paced innovation spirit of start-ups, providing a platform for rapid and focused innovation with an in-built path for commercialization – ultimately co-creating solutions that address the health and wellness of both people and the planet.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
100000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our assumption is that the strategic lighthouse will have a minimum revenue potential of EUR 100m per year. The approach is our market evaluation of each lighthouse.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Vega is an enabler for plant-based innovators to create customized and differentiated features for their products in taste, texture, health and sustainability. During FY22 Chr. Hansen joined forces with CP Kelco to develop breakthrough, ambient, plant-based "vegurts".

Cost to realize opportunity: This is part of business as usual, so it does not require any additional CAPEX investments.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of climate adaptation, resilience and insurance risk solutions

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Modern health conscious consumers are looking for real food with less artificial ingredients, and they are not willing to compromise on taste and shelf life. This is exactly what makes fermentation based bioprotection unique – our culture solutions solve this dilemma by offering customers a competitive edge in a competitive market space. They enable our customers to deliver a high consistence and make sure that when a product reaches the consumer, it will be just the way it was intended to be – naturally.

The Bioprotection lighthouse belongs in the Food Cultures & Enzymes business. Put simply, our food cultures enable manufacturers to utilize fermentation to improve the quality and safety of their food without compromising on the consumer demand for less artificial ingredients. Fermentation is the natural solution that helps inhibit spoilage and protect against contamination in food – keeping it safe and fresh for longer.

Since bioprotection was made a lighthouse in 2013, a passionate cross functional team including R&D, sales and commercial development has successfully grown revenue from almost nothing to an increasingly significant part of the Food Cultures & Enzymes business.

Next to the great products that have been launched over the years for yogurt, salad, salmon and meat applications, we have also celebrated a significant scientific breakthrough when discovering and proving the exact ability of the good bacteria in our FRESHQ® cultures to absorb a nutrient in milk that yeast and mold need to grow (2019). This is an important milestone that not only strengthens our scientific leadership and competitive edge but also enables us to create future generations of FRESHQ® cultures, supporting our customers with even better products.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)
100000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our assumption is that the strategic lighthouse will have a minimum revenue potential of EUR 100m per year. The approach is our market evaluation of each lighthouse.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Since bioprotection was made a lighthouse in 2013, a passionate cross functional team including R&D, sales and commercial development has successfully grown revenue from almost nothing to an increasingly significant part of the Food Cultures & Enzymes business.

Next to the great products that have been launched over the years for yogurt, salad, salmon and meat applications, we have also celebrated a significant scientific breakthrough when discovering and proving the exact ability of the good bacteria in our FRESHQ® cultures to absorb a nutrient in milk that yeast and mold need to grow (2019). This is an important milestone that not only strengthens our scientific leadership and competitive edge but also enables us to create future generations of FRESHQ® cultures, supporting our customers with even better products.

Cost to realize opportunity: This is part of business as usual, so it does not require any additional CAPEX investments.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Better farming and sustainable agriculture are important aspects of global food security. Climate changes and limited resources, in combination with a rapidly growing population, have put enormous pressure on the agricultural sector. In order to feed 10 billion people in 2050, the sector will have to increase its efficiency by 70%. At the same time, the use of antimicrobials to prevent and treat infections also in plants is a potential threat to humankind. According to the UN, the number of deaths caused by antibiotic resistance could climb to 10 million by 20501).

At Chr. Hansen we see it as our opportunity to meet these challenges, through innovative and sustainable solutions for modern farmers.

We launched our natural plant protection activities in 2013 – organizationally anchored in Health & Nutrition. Through collaboration with various partners, we have combined our knowledge and expertise to create a portfolio of microbial solutions for farmers all over the world. Today, our Plant Health business is one of our fastest growing across the Chr. Hansen Group.

Through extensive research and genetic analysis, we have begun to understand the relationship between microbes and crops, which in turn has taught us how bacteria can be used for plants to withstand harsh growing conditions, such as heat, drought, disease and pests. Microbial solutions are not only a sustainable and environment-friendly way to reduce the use of pesticides, but also a significant way to increase productivity and crop yield.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
100000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our assumption is that the strategic lighthouse will have a minimum revenue potential of EUR 100m per year. The approach is our market evaluation of each lighthouse.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation

Through extensive research and genetic analysis, we have begun to understand the relationship between microbes and crops, which in turn has taught us how bacteria can be used for plants to withstand harsh growing conditions, such as heat, drought, disease and pests. Microbial solutions are not only a sustainable and environment-friendly way to reduce the use of pesticides, but also a significant way to increase productivity and crop yield.

Cost to realize opportunity: This is part of business as usual, so it does not require any additional CAPEX investments.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan
Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan
Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan
We have a different feedback mechanism in place

Description of feedback mechanism
We conduct regular investor meetings dedicated to sustainability and ESG . Our Investor Relation team is responsible for collecting, prioritizing and responding to requests from investors.

Frequency of feedback collection
Annually

Attach any relevant documents which detail your climate transition plan (optional)
https://www.chr-hansen.com/en/sustainability/climate/decarbonization

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future
<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios: Customized publicly available physical scenario	Company-wide	1.6ºC – 2ºC	We have adopted TCFD identifying risk and opportunities related to climate change inside and outside our organisational boundary. Also, we participate in a project with our assurance company, identifying the physical implications of rising sea levels and changing weather conditions for our sites.
Transition scenarios: Customized publicly available transition scenario	Company-wide	1.6ºC – 2ºC	We have adopted TCFD identifying risk and opportunities related to climate change inside and outside our organisational boundary.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

How can we support the growing global population with healthy sustainable food?

How can our solutions support a more sustainable food system with improved efficiency and less food waste?

How do we support our customers in the decarbonization of the sectors in which they operate?

How do we decarbonize our supply chain and our own operations delivering on our climate ambition?

How do we future-proof our business and physical assets against the transitional and physical effect of climate change?

Results of the climate-related scenario analysis with respect to the focal questions

The results of the conducted scenario analysis are that the assessment of climate-related scenarios is integrated and reflected in our purpose, strategy, innovation lighthouses, Product, Planet People targets, Sustainability programs and climate risk cards.

The results have informed us on how we can support the growing global population with healthy sustainable food and have launched our natural plant protection activities in 2013 – organizationally anchored in Health & Nutrition. Through collaboration with various partners, we have combined our knowledge and expertise to create a portfolio of microbial solutions for farmers all over the world. Today, our Plant Health business is one of our fastest growing across the Chr. Hansen Group.

Through extensive research and genetic analysis, we have begun to understand the relationship between microbes and crops, which in turn has taught us how bacteria can be used for plants to withstand harsh growing conditions, such as heat, drought, disease and pests. Microbial solutions are not only a sustainable and environment-friendly way to reduce the use of pesticides, but also a significant way to increase productivity and crop yield.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Every day, Chr. Hansen's ingredients are consumed by more than 1 billion people. This presents a unique opportunity to address some of the world's biggest challenges, defined by the UN Global Goals. Chr. Hansen is committed to improving food and health for a sustainable future for the benefit of the consumers, customers and stakeholders in the dairy industry. To assess the contribution to sustainability, Chr. Hansen has estimated the percentage of its gross revenue that has a positive impact on the UN Global Goals. The measuring focuses on the three UN Global Goals where the ingredients cooperate has the biggest impact – UN Global Goal 2 (Zero Hunger), UN Global Goal 3 (Good health and well-being) and UN Global Goal 12 (Responsible consumption and production). For this assessment, Chr. Hansen has developed a five-step approach. The methodology, documentation and final conclusions have gone through an assurance process by PwC. We have have mapped our entire product portfolio, containing more than 3000 products and the mapping concludes that 80% of Chr. Hansen's gross revenue contributes positively to UN Global Goals 2, 3 and 12.
Supply chain and/or value chain	Yes	Chr. Hansen differentiates between direct and indirect suppliers when onboarding suppliers. Direct suppliers are those that supply Chr. Hansen with raw materials, traded goods or food-contact materials, or perform part of our production on our behalf (toll manufacturers). As a result, direct suppliers are subject to a more stringent approval process, as detailed in Chr. Hansen's Supplier Guiding Principles. Responsible sourcing progress is measured as the percentage of direct suppliers that have been approved in relation to sourcing, quality and corporate social responsibility. All new direct suppliers must be approved through the Vendor Approval Management process. Based on the determined risk level, audits will be performed to assess the conditions and performance of the supplier against the supplier requirements, which includes law, health, safety, environment, human rights, diversity, labor force, working conditions. Also, Chr. Hansen has a dedicated Supplier Engagement program tackling the decarbonization of scope 3. Chr. Hansen is working closely with selected high-risk supplier groups to help build local capacity and improve social and environmental performance.In 2019, Chr. Hansen updated their Supplier Requirements for Sustainability, which have been integrated into all existing contracts and form part of our standard business terms for all new suppliers. The Supplier Guiding Principles are a key component in the collaboration with suppliers, covering principles within quality, food safety, CSR and regulatory compliance. The principles are included in Chr. Hansen's standard contracts and are therefore binding obligations that the supplier must follow.
Investment in R&D	Yes	We are continuously investing in efficient products and production operations. Going forward will be evaluating our innovation pipeline against our sustainability goals and driving innovation challenges around climate-related topics.
Operations	Yes	Global Operations holds a central role in achieving Chr. Hansen's Product, Planet and People targets by 2025 as well as the Science Based Targets by 2030. Global Operations ensures a global approach to environmental management and supports production sites in obtaining and maintaining ISO 14001 environmental certification. As part of operations, Chr. Hansen has a global "Go Green" organization to sharpen focus on energy management and reduce environmental impact throughout its operations. The "Go Green" organization helps sites to identify and mitigate environmental risks and invest in energy efficiency solutions.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation	82% of our revenue contributes positively to the SDG's, see further details under Products, C3.3. Enabling our customers to improve their sustainable performance is key to Chr. Hansen, and the product lighthouses as defined in the 2025 corporate strategy are products with the ability of driving a positive sustainable impact. Significant growth of our product lighthouses is expected enabled by capital allocations when sub-targets are met. Consequently, our revenue, direct and indirect costs are influenced along with the capital expenditures.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, and we do not plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)
17073

Base year Scope 2 emissions covered by target (metric tons CO2e)
30382

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
47455

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
42

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
24231

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
17897

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
42128

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
Chr. Hansen's scope 1+2 target is an absolute climate reduction target with base year 2020 and target year 2030. The target is aligned with 1.5C trajectory under the Paris Agreement and Science Based Targets. Sales offices, warehouses and R&D facilities with less than 30 FTEs (full time employees) are excluded.

Plan for achieving target, and progress made to the end of the reporting year
Chr. Hansen has increased its share of renewable electricity to 61% through company power purchase agreements supplemented by local site-specific renewable electricity deals.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Abs 2

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
2°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 8: Upstream leased assets
Category 9: Downstream transportation and distribution
Category 12: End-of-life treatment of sold products

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
323396

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
323396

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
20

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
212265

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
28895

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
7399

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
54554

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
2468

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
4373

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
3387

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
2343

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
4204

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
151

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
315655

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
315655

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
Chr. Hansen's scope 3 target is an absolute climate reduction target with base year 2020 and target year 2030. The target is in between the 2C and the Well-below 2C trajectory under the Paris Agreement and Science Based Targets. Sales offices, warehouses and R&D facilities with less than 30 FTEs (full time employees) are excluded.

Plan for achieving target, and progress made to the end of the reporting year
Chr. Hansen developed a scope 3 roadmap where a central component is to set up a robust scope 3 monitoring system and a Supplier Engagement track. Also, Chr. Hansen is working on continuous improvements making the production more resource efficient.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2020

Target coverage
Company-wide

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2016

Consumption or production of selected energy carrier in base year (MWh)
76643

% share of low-carbon or renewable energy in base year
0

Target year
2025

% share of low-carbon or renewable energy in target year
100

% share of low-carbon or renewable energy in reporting year
61

% of target achieved relative to base year [auto-calculated]

Target status in reporting year
Underway

Is this target part of an emissions target?
This renewable electricity target and our scope 1+2 target are considered to separate but still connected targets. Naturally, our renewable electricity target plays a vital component in cutting our climate impact in scope 2. Both targets are an integrated part of our corporate 2025 strategy.

Is this target part of an overarching initiative?
Science Based Targets initiative
Other, please specify (Company 2025 Strategy)

Please explain target coverage and identify any exclusions
With base year in 2016 and target year in 2025, this target drives the company-wide transformation of Chr. Hansen being powered by renewable electricity by 2025. We aim for the most robust and credible solutions ensuring additional renewable electricity production to the national grids where we operate. Sales offices, warehouses and R&D facilities with less than 30 FTEs (full time employees) are excluded.

Plan for achieving target, and progress made to the end of the reporting year
A power purchase agreement was taken into production, for this reported year (FY22), the agreement was is in place for the full year increasing Chr. Hansen's share of renewable electricity. Chr. Hansen continuous to seek for options to roll out renewable electricity globally.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2020

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Waste management	Other, please specify (metric tons of biowaste recycled)

Target denominator (intensity targets only)
<Not Applicable>

Base year
2016

Figure or percentage in base year
0

Target year
2025

Figure or percentage in target year
100

Figure or percentage in reporting year
91

% of target achieved relative to base year [auto-calculated]

Target status in reporting year
Underway

Is this target part of an emissions target?
No, it is not part of an emission target. The target is an integrated part of our corporate 2025 strategy.

Is this target part of an overarching initiative?
Other, please specify (Company 2025 Strategy)

Please explain target coverage and identify any exclusions
With base year in 2016 and target year in 2025, this target drives the company-wide transformation of Chr. Hansen recycling our biowaste by 2025. Recycling of biowaste is defined as either reuse of waste as secondary raw materials, reprocessing of waste as new product, or using waste as fuel in energy and heat production. Minor production processes within the major facilitates, where generated eluate does not exceed 1% of the total biowaste for Chr. Hansen is excluded.

Plan for achieving target, and progress made to the end of the reporting year
Chr. Hansen continuous to seek for options to recycle its bio-waste with the aim of energy utilization or even resource recovery.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	8	122340
Implementation commenced*	3	47754
Implemented*	3	23114
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Transportation	Other, please specify ((Air 2 sea conversion with transport providers)

Estimated annual CO2e savings (metric tonnes CO2e)
1614

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3 category 4: Upstream transportation & distribution

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
Ongoing

Comment

Initiative category & Initiative type

Low-carbon energy consumption	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
14000

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
Ongoing

Comment

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Process optimization (dosing on activity))

Estimated annual CO2e savings (metric tonnes CO2e)
7500

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3 category 1: Purchased goods & services

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
Ongoing

Comment

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal finance mechanisms	There is as for all investments a requirement of min 2 year payback, currently Chr. Hansen is would consider payback period of more than 5 years if the investment has an environmental benefit.
Employee engagement	An employee engagement campaign is running in parallel with the overarching corporate climate program. Funds are allocated to spark employee motivation and engagement supporting this campaign.
Internal price on carbon	The awareness is raising about carbon pricing and the financial implications of climate change. As a consequence, an internal carbon price is implemented as decision support when doing business cases related to the company climate program or other larger investments.
Internal incentives/recognition programs	The climate program is linked to an annual recurring employee sustainability award. And 20% of the corporate leadership team's short term incentive is linked to ESG aspects including climate.
Partnering with governments on technology development	We are engaged in projects around low temperature heat pumps and utilization of surplus heat supported by government funding.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other	Other, please specify (Improvements in the agricultural and food sector.)

Description of product(s) or service(s)

Several of Chr. Hansen products enable customers to avoid/reduce CO2 emissions. Many Chr. Hansen products provide the customer with an increased yield, or in other words the ability to produce “more with less”. Products like CHYMAX® Supreme and GALLIPRO® Fit provide efficiency gains at customer level. Chr. Hansen's customers save resources such as milk, proteins sugars and other raw materials. Other products such as FRESHQ® provides longer shelf life and increased shelf life leads to reduced food waste and carbon emissions.

Annually, Chr. Hansen assesses the revenue contribution from products contributing positively to three of UN's Sustainable Development Goals (SDG 2, SDG 3 and SDG 12) as elaborated in C0.1. This year 82% of Chr. Hansen’s gross revenue contributed positively to SDG 2, 3 and 12. And 65% of our revenue contributed positively to SDG 12 providing efficiencies in customers' production of agricultural and food products.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

<Not Applicable>

Functional unit used

<Not Applicable>

Reference product/service or baseline scenario used

<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario

<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions

<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

80

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

September 1 2019

Base year end

August 31 2020

Base year emissions (metric tons CO2e)

18374

Comment

Emissions are calculated in accordance with the GHG Protocol. Sales offices, warehouses and R&D facilities with less than 30 FTEs (full time employees) are excluded. For more details, please refer to the section on emission data.

Scope 2 (location-based)

Base year start

September 1 2019

Base year end

August 31 2020

Base year emissions (metric tons CO2e)

18990

Comment

Emissions are calculated in accordance with the GHG Protocol. Sales offices, warehouses and R&D facilities with less than 30 FTEs (full time employees) are excluded. For more details, please refer to the section on emission data.

Scope 2 (market-based)

Base year start

September 1 2019

Base year end

August 31 2020

Base year emissions (metric tons CO2e)

29864

Comment

Emissions are calculated in accordance with the GHG Protocol. Sales offices, warehouses and R&D facilities with less than 30 FTEs (full time employees) are excluded. For more details, please refer to the section on emission data.

Scope 3 category 1: Purchased goods and services

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
186790

Comment

Scope 3 category 2: Capital goods

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
38310

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
6060

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
60090

Comment

Scope 3 category 5: Waste generated in operations

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
2560

Comment

Scope 3 category 6: Business travel

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
5980

Comment

Scope 3 category 7: Employee commuting

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
2570

Comment

Scope 3 category 8: Upstream leased assets

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
2290

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
4400

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start
September 1 2019

Base year end
August 31 2020

Base year emissions (metric tons CO2e)
120

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
24231

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
Scope 1 emissions are calculated in accordance with the GHG Protocol. Main drivers of impact include the use of natural gas and coolants leakage. Sales offices, warehouses and R&D facilities with less than 30 FTEs (Full Time Employees) are excluded. Cooling agents are reported when the cooling systems are refilled, even though emissions from these chemicals are released over approximately 3-5 years. Reported usage is averaged over 36 months when included. Emission factor sources are: UK Government (DEFRA), EU Commission and United States Environmental Protection Agency (US EPA).

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
Emissions are calculated in accordance with the GHG Protocol using the operational control approach with company cars being an exception. Main driver of impact is electricity. Sales offices, warehouses and R&D facilities with less than 30 FTEs (Full Time Employees) are excluded. Emission factor sources are the UK Government (DEFRA), International Energy Agency (IEA), Association of Issuing Bodies (AIB), Danish Energy Agency and United States Environmental Protection Agency (US EPA).

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
24305

Scope 2, market-based (if applicable)
17897

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
Emissions are calculated in accordance with the GHG Protocol using the operational control approach with company cars being an exception. Main driver of impact is electricity. Sales offices, warehouses and R&D facilities with less than 30 FTEs (Full Time Employees) are excluded. Emission factor sources are the UK Government (DEFRA), International Energy Agency (IEA), Danish Energy Agency and United States Environmental Protection Agency (US EPA).

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions
Sales offices, warehouses and R&D facilities with less than 30 FTE (Full Time Employees) are excluded.

Scope(s) or Scope 3 category(ies)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of Scope 3 emissions from this source
<Not Applicable>

Date of completion of acquisition or merger
<Not Applicable>

Estimated percentage of total Scope 1+2 emissions this excluded source represents
4

Estimated percentage of total Scope 3 emissions this excluded source represents
<Not Applicable>

Explain why this source is excluded
Sources are excluded to ensure focus and improvement of data related to significant emission drives.

Explain how you estimated the percentage of emissions this excluded source represents
The exclusion percentage is estimated based on sample data and extrapolations of fuel and energy consumption for the excluded entities.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
212265

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes direct (raw materials) and indirect spend. The activity data is a combination of spend and activity data (e.g., physical units). A hybrid approach is used, where both spend- and activity-based (physical units, e.g., m3, kg etc.) methodologies are utilized. The following hierarchy is used: activity-based, spend-based, extrapolation based on spend. Emission factor sources are Ecoinvent 3.7.1 (activity-based) and Exiobase v.3 (spend-based).

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
28895

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes Capital Expenditures. The activity data is spend data and therefore, a spend-based approach is used. Emission factor source is Exiobase v.3.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
7399

Emissions calculation methodology
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The activity data used for Scope 1 and 2, with well-to-tank (WTT) and grid loss (T&D) are accounted for. Total quantities consumed per unit of consumption (e.g., MWh) per country combined with average emission factors per unit of consumption are used. Emission factor sources are the International Energy Agency (IEA) and UK Government (DEFRA).

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
54554

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Emissions are calculated in accordance with the GHG Protocol. The category includes all deliveries to internal and external customers, where the freight is invoiced to Chr. Hansen. The activity data is logistics data on distance, volume, number of shipments and mode of transport. For air freight radiative forcing (RF/RFI) is included, and for the relevant modes of transport Well-to-Wheel (Well-to-Tank and Tank-to-wheel) emissions factors are used. Emission factor source is UK Government (DEFRA).

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2468

Emissions calculation methodology
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The activity data is the amount of waste produced, the type and amount of waste streams generated in operations and their respective waste treatment methods (e.g., landfilled, incinerated, recycled, etc.). Emission factor source is UK Government (DEFRA).

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
4373

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircrafts, trains, buses, and passenger cars. GHG emissions related to flights, trains and rental cars used are included and provided 100% by suppliers.

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
3387

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes all transportation of employees between their homes and their worksites (in vehicles not owned nor operated by the reporting company). An update to the methodology has been implemented in the reporting year 2021-2022, to better reflect the employees commuting patterns and modes of transport. The activity data is the responses of an annual global internal commuting survey, which is then extrapolated to include all Full Time Employees (FTE). For the relevant modes of transport Tank-to-Wheel emissions factors are used. Emission factor source is UK Government (DEFRA).

Upstream leased assets

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2343

Emissions calculation methodology
Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes operation of assets leased by the reporting company (lessee) in the reporting year, not included in Scope 1 and Scope 2. The activity data consist of the number and type of vehicles, the distance driven and the fuel/energy consumption per vehicle type, which are provided by suppliers. The calculations hierarchy prioritizes a fuel-based method, and if not relevant information is available a distance-based method is utilized. For the relevant modes of transport Tank-to-Wheel emissions factors are used. Emission factor source is UK Government (DEFRA).

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
4204

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes all deliveries to external customers where the transport is arranged and paid for by the customer. The activity data is logistics data on distance, volume, number of shipments and mode of transport. For air freight radiative forcing (RF/RFI) is included, and for the relevant modes of transport Well-to-Wheel (Well-to-Tank and Tank-to-Wheel) emissions factors are used. Emission factor source is UK Government (DEFRA).

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen's solutions are not being processed by third party subsequent to sale by Chr. Hansen and does not have any emissions related to this category as defined by the GHG Protocol. No fuel consumption, energy nor materials consumption takes place.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen's solutions do not contribute to the increase of direct emissions during the use-phase, in accordance with the GHG Protocol. No fuel consumption, energy nor materials consumption takes place. On the contrary, Chr. Hansen's solutions enable GHG savings by improved efficiency at customer level, in many cases.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
151

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Chr. Hansen is validating the Scope 3 data and will report its Scope 3 emissions in FY23. Therefore numbers for the base year are still reported. Emissions are calculated in accordance with the GHG Protocol. The category includes all waste disposal and treatment of products sold by Chr. Hansen at the end of their life, where only the waste from packaging is included due to the product itself is assumed to be completely used. The activity data is a combination of spend and master data (e.g., physical units). Where physical units are unavailable, an extrapolation based on spend and emission factors is applied. Emission factor source is UK Government (DEFRA).

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen does not lease assets to any third party and does not have emissions associated to this category, in accordance with the GHG Protocol.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen does not franchisees and does not have emissions related to this category as defined by the GHG Protocol.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen does not do investments and does not have emissions related to this category, in accordance with the GHG Protocol.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen has not defined any other upstream activities driving emissions that are not already covered by the GHG Protocol.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Chr. Hansen has not defined any other downstream activities driving emissions that are not already covered by the GHG Protocol.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
34.6

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
42128

Metric denominator
Other, please specify (EUR million)

Metric denominator: Unit total
1218

Scope 2 figure used
Market-based

% change from previous year
8.95

Direction of change
Increased

Reason(s) for change
Change in output
Change in revenue

Please explain
The increase by 9% is due to an increase of 23.7% in Chr. Hansen's Scope 1&2 and an increase in revenue of 13% and the corresponding increase in production.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Brazil	1337
Czechia	48
Denmark	7795
France	3522
Germany	1263
Poland	382
Turkey	18
United States of America	9865

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.
By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Arpajon	3522	48.607066	2.269021
Avedoere (Copenhagen)	4940	55.609731	12.492758
Graasten	563	54.909401	9.593712
Hoersholm	432	55.87357	12.487575
Hustopece	48	48.957786	16.698644
Istanbul	18	40.99083	29.074812
Madison	3456	43.199621	-89.337324
New Berlin	1817	43.003624	-88.116147
Nienburg	205	52.654536	9.207033
Pohlheim	1015	50.540647	8.708636
Rheinbreitbach	43	50.621879	7.221261
Roskilde	1860	55.63132	12.080755
Valinhos	1337	-22.994249	-47.006039
Warsaw	382	52.386937	20.742954
Wausau	291	44.969076	-89.726202
West Allis	4300	43.010697	-88.025278

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Australia	401	401
Brazil	167	9
China	7	36
Czechia	165	219
Denmark	4704	1559
France	446	516
Germany	8459	2975
Malaysia	13	45
Poland	271	343
Russian Federation	269	269
Turkey	224	224
United States of America	9768	11202

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Arpajon	446	516
Avedoere (Copenhagen)	2856	1014
Beijing	7	36
Graasten	224	0
Hoersholm	1088	435
Hustopece	165	219
Istanbul	224	224
Kuala Lumpur	13	45
Madison	3111	3538
Melbourne	401	401
Moscow	269	269
New Berlin	2410	2774
Nienburg	6233	1474
Pohlheim	1113	679
Rheinbreitbach	1113	822
Roskilde	536	110
Valinhos	167	9
Warsaw	271	343
Wausau	539	620
West Allis	3709	4269

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	0	No change	0	
Divestment	0	No change	0	
Acquisitions	7948	Increased	23	Three acquisitions were made in FY22: UAS Labs located in Madison and Wausau, Jennewein located in Rheinbreitbach and HSO located in New Jersey. HSO has <30 FTE (exclusion boundary).
Mergers	0	No change	0	
Change in output	8109	Increased	24	A 24% increase in energy consumption due to increased production is reflected into Scope 1+2 impact.
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	102266	102266
Consumption of purchased or acquired electricity	<Not Applicable>	55608	42774	98382
Consumption of purchased or acquired heat	<Not Applicable>	0	16633	16633
Consumption of purchased or acquired steam	<Not Applicable>	0	6972	6972
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	66	<Not Applicable>	66
Total energy consumption	<Not Applicable>	55674	168645	224319

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Oil

Heating value
LHV

Total fuel MWh consumed by the organization
560

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
560

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
It includes both fuel and gas oil.

Gas

Heating value
LHV

Total fuel MWh consumed by the organization
101383

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
101383

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
It includes natural gas.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
LHV

Total fuel MWh consumed by the organization
495

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
495

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
It includes propane, butane, and bottled gas

Total fuel

Heating value

Total fuel MWh consumed by the organization
102437

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
102437

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
It includes fuel oil, gas oil, natural gas, propane, butane and bottled gas.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	324	258	324	258
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
Denmark

Sourcing method
Direct line to an off-site generator owned by a third party with no grid transfers (direct line PPA)

Energy carrier
Electricity

Low-carbon technology type
Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
38000

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2020

Comment

Country/area of low-carbon energy consumption
Germany

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
17541

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Brazil

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
1676

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Brazil

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2009

Comment

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Australia

Consumption of purchased electricity (MWh)
612

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Brazil

Consumption of purchased electricity (MWh)
1676

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
48

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
China

Consumption of purchased electricity (MWh)
59

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Czechia

Consumption of purchased electricity (MWh)
412

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Denmark

Consumption of purchased electricity (MWh)
36225

Consumption of self-generated electricity (MWh)
154

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
16661

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
France

Consumption of purchased electricity (MWh)
8950

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Germany

Consumption of purchased electricity (MWh)
20509

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
6936

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Malaysia

Consumption of purchased electricity (MWh)
68

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Poland

Consumption of purchased electricity (MWh)
429

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Russian Federation

Consumption of purchased electricity (MWh)
776

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Turkey

Consumption of purchased electricity (MWh)
536

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
United States of America

Consumption of purchased electricity (MWh)
27773

Consumption of self-generated electricity (MWh)
105

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C0. Introduction	Other, please specify (SDG revenue)	limited assurance in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits and Reviews of Historical Financial information'.	See page 72-73 Annual report 2021-22.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Shadow price

How the price is determined
Price with material impact on business decisions

Objective(s) for implementing this internal carbon price
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities
Stress test investments

Scope(s) covered
Scope 1
Scope 2
Scope 3 (upstream)

Pricing approach used – spatial variance
Uniform

Pricing approach used – temporal variance
Static

Indicate how you expect the price to change over time
<Not Applicable>

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
100

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
100

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Operations
Procurement
Risk management
Opportunity management
Value chain engagement

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for some decision-making processes, please specify (Energy related projects, expansions, new capacities, selected tenders)

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
As a part of our climate program, we are adopting the concept of internal carbon pricing to support business decisions, and to display the cost at risk of being realised though taxation, energy and material prices and/or other financial mechanisms.

The current level of adoption supports decision making on capital investments. The carbon price is used as decision support only with no rigid requirements on selecting the most favorable alternative when factoring the carbon price.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change
Climate change performance is featured in supplier awards scheme
Facilitate adoption of a unified climate transition approach with suppliers

Chr Hansen Global sourcing in 2022 launched a dedicated supplier engagement program on sustainability with focus on climate and environmental performance. Targets were set at the organization level for engaging with number of suppliers linked to individual performance goals as well as department goals. Meetings were set up with the selected suppliers and information on emissions, targets, initiatives etc. collected via dedicated questionnaires. For suppliers where there is a potential for collaboration or improvement initiatives, initiatives were collected and followed up.

% of suppliers by number

1

% total procurement spend (direct and indirect)
26

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement
A hot spot analysis exercise was carried out to identify the suppliers to engage with. The primary rational for selecting the suppliers to engage was high emission & high spend suppliers, which were classified as hot spots. Additionally some suppliers were selected based on other parameters like ongoing tenders, supplier proactiveness etc.

Impact of engagement, including measures of success
Chr. Hansen Global Sourcing launched a dedicated supplier engagement program with a 3 step maturity approach. Depending on supplier's own maturity the impact of engagement varies as below:
Step 1: Supplier onboarding & maturity assessment - Here the suppliers were invited to a meeting by the responsible sourcing/ category manger where Chr Hansen's sustainability program, decarbonization goals and expectations from the supplier on climate engagement was presented. For immature suppliers, action was promoted to start measuring emissions, set targets, and encouraged to be aligned with the SBTi initiative. Guiding links were shared with suppliers with industry resources for setting targets etc.,
Step 2: Data collection & Carbon accounting - Scope 1,2 & 3 data was collected from suppliers where the data was available through a questionnaire. Primary product specific data was collected were available. Other information like targets, initiatives and decarbonization roadmap were also collected.
Step 3: Collaboration & Improvement tracks - Specific initiatives for decarbonization was identified together with selected sup and a plan for collaboration was agreed upon.

Additionally sustainability evaluation questions were implemented in our e-procurement systems' question library and sustainability was integrated as an evaluation criteria/ award scheme parameter for tenders on the platform.

Comment
General comment - All data is based on the spend data on SAP for financial year 2022 and emission data on our CO2 accounting platform (calculated according to the Greenhouse Gas protocol).

Comment regarding the '%of suppliers by numbers' - Chr Hansen has a long tail of suppliers with very low spend which amount to a higher count of suppliers based on which the reported number of 1% was calculated on. But 95% of spend is covered by around 620 suppliers. If that is considered, we cover approximately 9% of the suppliers the engagement out of the suppliers covering 95% of the spend.

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect GHG emissions data at least annually from suppliers
Collect targets information at least annually from suppliers
Collect climate-related risk and opportunity information at least annually from suppliers
Collect climate transition plan information at least annually from suppliers
Collect other climate related information at least annually from suppliers

Chr Hansen Global sourcing in 2022 launched a dedicated supplier engagement program on sustainability with focus on climate and environmental performance. Targets were set at the organization level for engaging with number of suppliers linked to individual performance goals as well as department goals. Meetings are set up with the selected suppliers and information on emissions, targets, initiatives etc. collected via dedicated questionnaires. For suppliers where there is a potential for collaboration or improvement initiatives, initiatives were collected and followed up.

% of suppliers by number
1

% total procurement spend (direct and indirect)
26

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement
A hot spot analysis exercise was carried out to identify the suppliers to engage. The primary rational for selecting the suppliers to engage was high emission & high spend suppliers, which were classified as hot spots. Additionally some suppliers were selected based on other parameters like ongoing tenders, supplier proactiveness etc.

Impact of engagement, including measures of success
Supplier emission data was collected through a supplier engagement questionnaire and agreement made on how to collect data annually. Sustainability reports were shared by suppliers were available and climate related risk and opportunities were discussed.
Examples of data collected are: scope 1,2,3 GHG emissions, CDP reporting, emission calculation methodology, 3rd party validation, targets and SBTi validation, renewable energy % and plans, other ongoing/planned climate v initiatives etc.

Comment
General comment - All data is based on the spend data on SAP for financial year 2022 and emission data on our CO2 accounting platform (calculated according to the Greenhouse Gas protocol).

Comment regarding the '%of suppliers by numbers' - Chr Hansen has a long tail of suppliers with very low spend which amount to a higher count of suppliers based on which the reported number of 1% was calculated on. But 95% of spend is covered by around 620 suppliers. If that is considered, we cover approximately 9% of the suppliers the engagement out of the suppliers covering 95% of the spend.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number
10

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement
Our customers are not part of our scope 3 according to the Greenhouse Gas Protocol as Chr. Hansen's solutions are not energy or fuel consuming and do not generate direct emissions. Still, Chr. Hansen engages and inspires key customers by sharing our climate ambition, Think Climate. Naturally. Also Chr. Hansen's microbial solutions support a more efficient food system enabling climate reductions. This is increasingly being integrated in the value proposition of our products through validated calculators.

Impact of engagement, including measures of success
The growing awareness of climate change at our customers and Chr. Hansen's data-driven approach to establishing climate value propositions for our products have shown as a decisive factor in realizing conversions to more efficient and climate-friendly solutions.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Complying with regulatory requirements

Description of this climate related requirement
When new vendors enter Chr. Hansen systems, the vendor has to comply to a defined set of requirements related to sustainability, where vendors are required to follow common social and environmental standards.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
100

Mechanisms for monitoring compliance with this climate-related requirement
Certification
Supplier self-assessment
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement
Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

See our Policy-Global-Tax page 2-3

Policy-Global-Tax.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

Chr. Hansen continuously reviews the positions and activities of our sector/trade organizations, to ensure that these are consistent with Paris Accord decarbonization goals and objectives.

Chr. Hansen expresses support to taxation initiatives to achieve decarbonization objectives in our publicly available tax policy. Also, Chr. Hansen's solutions enable a more sustainable food system and we have set Science Based Targets to address and decarbonize our company carbon footprint. Both initiatives that benefit from regulation supporting low-carbon solutions.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
EU Green Deal, EU Farm to Fork and EU Fit for 55 policies: Chr. Hansen has worked to ensure that EU policy makers maintain the highest achievable ambitions in the reforms relevant to the food and agriculture sectors, which are critically important in terms of meeting EU climate ambitions.

Support for Danish carbon taxation scheme aiming towards 70% national reduction target. Danish carbon taxation agreement was passed in June 2022.

Category of policy, law, or regulation that may impact the climate
Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate
Carbon taxes

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
Denmark
EU27

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
Direct dialogue with Danish and European policy makers, civil servants, ministers, and active participation in trade associations, working groups.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
Yes, these are central policies, because EU food and agriculture sector regulation is not currently consistent with Paris Accord targets, and therefore must be subject to reform. As the food and agriculture sectors are amongst the hard to abate areas of all economies, thoughtful and constructive reforms must be undertaken to achieve sustainable transition, and Chr. Hansen seeks to provide policy makers with effective and constructive options towards this end.

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Support for Sustainable use of pesticides regulation (SUR), including public consultation responses, direct dialogue with policy makers (MP and MEP) and government officials (DK and EU officials).

Category of policy, law, or regulation that may impact the climate
Low-carbon products and services

Focus area of policy, law, or regulation that may impact the climate
Circular economy
Other, please specify (Environmental and agriculture policy)

Policy, law, or regulation geographic coverage
Regional

Country/area/region the policy, law, or regulation applies to
EU27

Your organization's position on the policy, law, or regulation
Support with minor exceptions

Description of engagement with policy makers
Direct meetings with MEP's, and hosted virtual roundtables with EU Commission officials, DK Government, MEP's and relevant NGOs.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
Proposed legislation should be more ambitious in fast tracking green and sustainable biological plant protection solution approvals, in order to get these on the EU market faster (current approval times are 5-7 years longer than in the US and in LATAM).

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
The EU Commission has put forward a target of reducing the use and risk of pestice use in the European Union by 50%. Chr. Hansen supports this target, but it is not realistically achieved without providing farmers greater access to biological plant protection products. If pestice use is reduced without providing sustainable means of combating pests and weeds, it will result in far lower yields and affect land use performance in the agricultural sector, both of which have direct bearing on decarbonization and EU climate targets.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (Confederation of Danish Industry (DI), Food)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
DI Food promotes Danish agricultural products and solutions. DI Food works to avoid leakage of jobs due to climate regulation acting nationally only, but DI Food promotes sustainable and efficient solutions. DI has endorsed the Danish government's recent carbon taxation Agreement, which will put DK on a pathway to 70% CO2 reduction by 2030. Chr. Hansen considers increased focus on climate friendly and sustainable solutions and practices as a benefit, and promotes the benefit of natural occurring and sustainable microbial solutions in this association.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (European Food and Feed Cultures Association (EFFCA))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The European food & feed cultures association - EFFCA - was formed in 1992. EFFCA is a central source of information for regulatory authorities, journalists, NGOs, other food/feed sector associations, scientists and academic audiences. EFFCA's objective is to enhance public knowledge of the contribution the use of microbial cultures make within the food chain through accurate, fair and scientifically-based information; while discouraging any inappropriate promotion or misuse. EFFCA is supportive of the EU Green Deal and Farm to Fork Strategy, and aims to position fermentation technology more prominently in achieving EU sustainability goals in the food sector.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
24700

Describe the aim of your organization's funding
EFFCA represents sustainability enabling sectors and companies in the EU food sector, and is advocating for a more direct utilization of food cultures and fermentation in EU strategies. Focused efforts towards the EU Commission to take action on preventing food waste, and to ensure framework conditions for an agile time-to-market for natural occurring microbial solutions enabling climate reductions.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document
Annual report 2021-22.pdf

Page/Section reference
For data tables, please refer to pages 70. For strategy, goals, description of progress, please refer to pages 9-11, 13-27, 30-34, 42-51, 53-62, . For accounting policies see pages 74-76.

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	UN Global Compact	We are a signatory to the UN Global Compacts Communication on Progress.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	The highest level of sustainability management is integrated in the ESG oversight by the Board of Directors. The Board of Directors is responsible for overseeing Chr. Hansen's climate targets and progress related to scope 1, 2 and 3, TCFD and emerging climate-related regulation. The Board of Directors has approved Chr. Hansen's Science Based Targets and enhanced implementation of TCFD, and it is oversees internal preliminary work on biodiversity. A Sustainability Board, chaired by President & CEO and composed of representatives of the business divisions and key internal functions, ensures that sustainability and ESG is effectively anchored in the organization. The Sustainability Board ensures ownership, involvement and commitment from the entire business in defining, prioritizing and executing on the sustainability and ESG objectives. On request from the Sustainability Board, Chr. Hansen has started an evaluation of how biodiversity translates to the business, the production and it's customers.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
Other, please specify (On our webpage under positions)	Content of biodiversity-related policies or commitments	See attached file Position-Biodiversity.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Head of Sustainability and ESG	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	1218000000

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
Sigma Foods

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
25

Uncertainty (±%)
50

Major sources of emissions
Natural gas

Verified
No

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member
1256937

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The estimate is based on Chr. Hansen's company scope 1 and the turnover with the respective customer. The uncertainty of Chr. Hansen's scope 1 account is low but the uncertainty arises when allocating emissions to specific customers as Chr. Hansen has a wide range of products and formats making a average allocation uncertain.

Requesting member
Sigma Foods

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
18

Uncertainty (±%)
50

Major sources of emissions
Electricity

Verified
No

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member
1256937

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The estimate is based on Chr. Hansen's company scope 2 and the turnover with the respective customer. The uncertainty of Chr. Hansen's scope 2 account is low but the uncertainty arises when allocating emissions to specific customers as Chr. Hansen has a wide range of products and formats making a average allocation uncertain. Also, all products produced in Denmark is produced with renewable electricity.

Requesting member
Royal Friesland Campina

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
66

Uncertainty (±%)
50

Major sources of emissions
Natural gas

Verified
No

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member
3318173

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The estimate is based on Chr. Hansen's company scope 1 and the turnover with the respective customer. The uncertainty of Chr. Hansen's scope 1 account is low but the uncertainty arises when allocating emissions to specific customers as Chr. Hansen has a wide range of products and formats making a average allocation uncertain.

Requesting member
Royal Friesland Campina

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
49

Uncertainty (±%)
50

Major sources of emissions
Electricity

Verified
No

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member
3318173

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The estimate is based on Chr. Hansen's company scope 2 and the turnover with the respective customer. The uncertainty of Chr. Hansen's scope 2 account is low but the uncertainty arises when allocating emissions to specific customers as Chr. Hansen has a wide range of products and formats making a average allocation uncertain. Also, all products produced in Denmark is produced with renewable electricity.

Requesting member
Novartis

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
120

Uncertainty (±%)
50

Major sources of emissions
Natural gas

Verified
No

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member
6049413

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The estimate is based on Chr. Hansen's company scope 1 and the turnover with the respective customer. The uncertainty of Chr. Hansen's scope 1 account is low but the uncertainty arises when allocating emissions to specific customers as Chr. Hansen has a wide range of products and formats making a average allocation uncertain.

Requesting member
Novartis

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
89

Uncertainty (±%)
50

Major sources of emissions
Electricity

Verified
No

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member
6049413

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
The estimate is based on Chr. Hansen's company scope 2 and the turnover with the respective customer. The uncertainty of Chr. Hansen's scope 2 account is low but the uncertainty arises when allocating emissions to specific customers as Chr. Hansen has a wide range of products and formats making a average allocation uncertain. Also, all products produced in Denmark is produced with renewable electricity.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Chr. Hansen Annual Report FY22

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	-
Customer base is too large and diverse to accurately track emissions to the customer level	-

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

As part of understanding how our products can drive carbon reductions at customer level, we are currently calculating carbon footprints of selected products to obtain a better understanding of the differences in carbon footprint depending on product type, product format and energy setup at the relevant production site(s).

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
No, I am not providing data

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below
I have read and accept the applicable Terms